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**MOTIVATED REASONING AND THE EFFECTS
OF POLITICAL MARKETING:**

Examining the Mobilizing Role of Political
Persuasion Based on the Model of Westen's
Experiment

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**MOTIVISANO REZONOVANJE I EFEKTI
POLITIČKOG MARKETINGA:**

Ispitivanje mobilizacijske uloge političkog
ubeđivanja po modelu Vestenovog eksperimenta

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Abstract

The subject of this study is the identification of the role and scope of neuroscience in the field of political marketing through the examination of the neural basis of motivated reasoning in the context of the persuasive process. Following the model of Westen's experiment, a neuroscientific test was conducted of Elil's thesis on orthopraxy, which states that successful political persuasion targets behavioural change through irrational means. This study examines the potential of neuroscience in testing traditional theses in political persuasion, particularly those aspects that remained on speculative level. The research focuses on how the neural basis of motivated political reasoning can provide answers regarding the elements and sequence of elements in the persuasive process. To test the hypotheses, a neuroscientific experiment was conducted using EEG. The results showed that the general, specific, and individual hypotheses were adequately formulated and essentially confirmed by empirical findings. The results demonstrated that the persuasive effects of political messages are more conditioned by the emotional relation of the individual to their political motives than by the content of the message, and that successful political persuasion targets desired behaviour through irrational means. The data also confirmed that the activation of motivated reasoning precedes the influence on attitudes and behaviour, and that this influence is conditioned by the rationalisation of the individual's emotional relation to their political motive in relation to the topic of the message.

Keywords: political persuasion, effects of political marketing, neuroscience, motivated political reasoning, persuasive process

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MOTIVISANO REZONOVANJE I EFEKTI POLITIČKOG MARKETINGA: Ispitivanje mobilizatorske uloge političkog ubeđivanja po modelu Vestenovog eksperimenta

Sažetak:

Predmet istraživanja u ovoj studiji je identifikovanje uloge i dometa primene neuronauke u oblasti političkog marketinga kroz ispitivanje neuronske osnove motivisanog rezonovanja u kontekstu persuazivnog procesa. Po modelu Vestenovog eksperimenta sprovedeno je neuronaučno testiranje Elilove teze o ortopraksiji, koja se odnosi na to da je uspešna politička persuazija usmerena na promenu ponašanja iracionalnim putem. U ovoj studiji se ispituje potencijal neuronauke u testiranju tradicionalnih teza iz oblasti političke persuazije, pogotovo u onim delovima koje su ostajale na nivou spekulativnog. Istraživanje je usmereno na utvrđivanje toga na koji način neuronska pozadina motivisanog političkog rezonovanja može pružiti odgovore o elementima i redosledu elemenata u persuazivnom procesu. U svrhu testiranja hipoteza u ovom istraživanju sproveden je neuronaučni eksperiment u kom je primenjeno ispitivanje EEG-om. Rezultati su pokazali da su opšta, posebne i pojedinačna hipoteza adekvatno postavljene i u osnovi potvrđene empirijskim nalazima. Rezultati istraživanja su pokazali da su persuazivni efekti političkih poruka više uslovljeni emocionalnim odnosom pojedinca prema njegovim političkim motivima, nego sadržajem poruke, kao i da je uspešna politička persuazija usmerena na izazivanje željenog ponašanja iracionalnim putem. Takođe, podaci su potvrdili da aktivacija motivisanog rezonovanja prethodi uticaju na stavove i ponašanje i da je taj uticaj uslovljen racionalizacijom emocionalnog odnosa pojedinaca prema njegovom političkom motivu u odnosu na temu na koju se poruka odnosi.

Ključne reči: političko ubeđivanje, efekti političkog marketinga, neuronauka, motivisano političko rezonovanje, persuazivni process

Naučna oblast: Političke nauke

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Table of Contents

1. Introduction to the Dissertation	1
1.1 Introductory Considerations	1
1.2 Formulation of the Research Problem, Subject, and Goal of the Research	3
1.3 Theoretical Framework.....	8
1.4 Research Questions and Hypothetical Framework.....	10
1.5 Methodological Framework and Research Design	11
1.6 Scientific and Social Contribution of the Research.....	13
1.6.1 Scientific Contribution of the Research.....	13
1.6.2 Social Contribution of the Research	14
1.7 Description of the Content by Chapters.....	14
2. Political Communication	16
2.1 Defining the Concept of Political Communication.....	16
2.2 Elements of Political Communication.....	21
2.3 Functions of Political Communication.....	25
3. Political Persuasion as a Function of Political Communication	27
3.1 Definition of Political Persuasion	27
3.2 Historical Foundations of the Development of Political Persuasion	30
3.3 Relationship between Persuasion and Political Communication	33
3.4 Persuasion and Influence on Attitudes and Behavior.....	35
3.5 Key Elements of the Persuasive Message	41
3.6 The Process of Persuasive Communication	44
3.7 Persuasion and Free Will.....	45
4. Political Propaganda as Organised Political Persuasion	50
4.1 Historical Foundations of Different Interpretations of the Concept of Propaganda.....	50
4.2 Different Understandings and Definitions of Political Propaganda	54
4.3 Functions and Types of Political Propaganda	58
4.4 External and Internal Characteristics of Propaganda according to Ellul	62
4.4.1. External Characteristics of Propaganda.....	64
4.4.2 Internal Characteristics of Propaganda.....	65

4.5 Ellul's Concept of the Propaganda Process	67
4.6 Logic of Political Propaganda	71
4.7 Psychological Effects of Political Propaganda According to Ellul.....	78
5. Political Marketing as a Commercialized Variant of Political Propaganda.....	81
5.1 History of Political Marketing Development	81
5.2 Elements of Definition and Types of Political Marketing	83
5.3 Theoretical Foundations of Political Marketing.....	88
5.4 Value Orientation as the Basis for Political-Propaganda Action Strategies.....	91
5.5 The Principle of Political Marketing Efficiency	94
6. Theories on the Effects of Political Marketing	96
6.1 Theories of Effects on Attitudes	96
6.1.1 Theories of Maximum Effects on Attitudes	96
6.1.2 Theories of Limited Effects on Attitudes	98
6.2 Theories of Effects on Behaviour	101
6.3 Research and Theories of the Effects of Political Marketing.....	104
7. Emotions and Cognition.....	109
7.1 Theories of Emotions	110
7.1.1 Philosophical Theories of Emotions	112
7.1.2 Psychological theories of emotions	116
7.1.3 Sociological theories of emotions	119
7.2 Types of Emotions	121
7.3 Emotional episode	123
7.4 Affective Processing	125
7.5 Measure of Emotions.....	129
7.6 Brain Regions Involved in Emotional Processing.....	134
7.7 Categorization of Emotional Stimuli	140
7.8 The Influence of Emotions on Higher Levels of Cognition	143
8. Motivated Reasoning	147
8.1 Definition of the Concept.....	147
8.2 Categories of Motivated Reasoning.....	151
8.3 The Paradigm of Motivated Political Reasoning	153
8.3.1 The Paradigm of Motivated Political Reasoning	155
8.3.2 The JQP Model of Political Information Processing	160
8.4 Affective Tipping Point.....	162

8.5 Motivated Political Reasoning and Electoral Motivation	165
9. Emotions as Information in Motivated Political Reasoning	172
9.1 The Relationship between Emotions and Deductive Reasoning.....	172
9.1.1 Incidental Emotions and Deductive Reasoning	173
9.1.2 Integral Emotions and Deductive Reasoning	174
9.2 From Emotion to Action – The Theory of Action Readiness	175
9.3 The Political Brain Is an Emotional Brain – Westen’s Experiment.....	177
10. Neuroscience	184
10. 1 Definition of the Notion of Neuroscience, Neuropolitics, and Neuromarketing	184
10.2 Neuroscientific Methods	187
10.3 Cognitive Neuroscience.....	192
10.3.1 Cognitive Neuroscience and Emotion	194
10.3.2 Cognitive Neuroscience, Political Psychology, and Neuropolitics	195
10.3.3 Memory, Attention, and Emotions from the Perspective of Cognitive Neuroscience.....	197
.....	205
10.4 Affective Neuroscience Theory.....	205
10.4.1 Neurostatics	208
10.4.2 Neurodynamics	211
11. Motivated reasoning and the effects of political marketing: research procedure and presentation of results	215
11.1 Similarities and differences in relation to Westen’s experiment.....	215
11.2 Methodology and Research Design.....	217
11.2.1 Equipment	217
11.2.2 Participant Recruitment	219
11.2.3 Experimental Design	221
11.2.4 Experimental Testing.....	223
11.2.5 Data Processing Description	225
11.2.7 Data Loading and Processing.....	231
11.3 Presentation of Results	234
12. Discussion of Results	268
13. Conclusion	294
Bibliography.....	300
APPENDICES.....	312

1. Introduction to the Dissertation

1.1 Introductory Considerations

“Those who hope to solve the problem of the neurophysiology of the mind are like man at the foot of a mountain. They stand the clearings they have made on the foothills, looking up at the mountain they hope to scale. But the pinnacle is hidden in eternal clouds and many believe it can never be conquered. Surely if the day does dawn when man had reached complete understanding of his own brain and mind, it may be his greatest conquest, his final achievement.” (W. Penfield, 1960, quoted in Fromm, 2016: 95)

The dynamics of political marketing development have been shaped by the ambition to identify and explain the most effective ways of influencing individual behaviour and attitudes through a marketing stimulus, that is, a political message. However, when we speak of influencing how individuals behave, what they think, and what they feel during exposure to political marketing messages, we are ultimately referring to the influence of the marketing stimulus on the recipient’s brain. In this sense, this thought by Penfield reflects both the essence of such ambitions in political marketing and the key challenges present on the path of studying its effects. From that year, 1960, in which Penfield viewed the resolution of the neurophysiology of the mind as an unattainable goal, yet also as the final achievement of humanity, to the development of brain scanning techniques in the 1990s, which U.S. President Bush referred to as the “Decade of the Brain” (Wannyn, 2017: 4), only a few decades have passed. In those few decades, the level of knowledge and technological advancement in the field of neuroscience has led to the transformation of what Penfield labeled as humanity’s final achievement from a philosophical, and in a certain sense pessimistic, metaphor into the enthusiasm of a kind of neuro-revolution in science.

That enthusiasm of the *Decade of the Brain* in the 1990s, at the beginning of this century, raised the bar of ambition in the direction not only of scientific interpretation of reactions to stimuli, but also of practical management of those reactions. Starting from the premise that neuroscientific research enables “the ability of neuromarketing to access and assess information beyond the level of human consciousness” (Fortunato et al., 2014: 208), that is, in the field of the unconscious, the development of neuroscience simultaneously provides entirely new insights into the nature of people’s political behaviour through the analysis of the neural bases of the political decision-making process. This potential of neuroscience, faced with the challenges of studying the effects of political marketing, naturally opened the path to a new interdisciplinary field, so-called political neuromarketing, or the study of the application of neuroscientific responses to the questions posed by political marketing. However, despite the fact that neuroscience is already being applied in the practice of political marketing, it is evident that there are not enough scientific studies that address the application of neuroscientific experimental results in this field. Examining the mobilizing role of political persuasion certainly represents a field in which knowledge from the area of neuroscience could, through an interdisciplinary approach, improve the field of studying political marketing effects. Gaining insight into the neural background of reactions to political messages certainly offers a new level of knowledge in relation to traditional techniques

for studying effects, which show their full potential in those fields where answers have remained at the level of speculation.

The development of neuroscience is particularly significant for fields that study political marketing, which are often characterized by speculation and a certain mystification under the veil of the term “irrational.” In the field of political persuasion, this especially applies to the study of the influence of emotions on political decision-making, as well as to those situations that classical literature has primarily explained based on systematizing practical experiences and knowledge derived from observation. Although in recent decades the development of neuroscience has resulted in the practical application of new knowledge from this field of medicine to the social sciences, especially marketing, the practice stimulated by these insights symptomatically outpaces the speed of scientific precision and the description of the contribution of this knowledge in social science fields where it finds application. While most theses in the field of political persuasion and political propaganda, upon which political marketing is based, highlight the irrational aspects of human behaviour, but insufficiently specify this irrationality, the development of neuroscience opens the possibility of testing these theses. This primarily concerns seeking answers that were inaccessible before the development of neuroscience and relate to direct insight into brain functioning during exposure to a given stimulus.

Although it is not yet possible to determine this precisely, the term “neuromarketing” is considered to have been first used in 2002 by Ale Smidts from Erasmus University (Cherubino et al., 2019). However, despite the term being first used only then, the founder of neuromarketing is considered to be Gerry Zaltman from Harvard University, who in 1999 first employed magnetic resonance imaging (fMRI) as a marketing tool (Krajnović et al., 2012). Besides neuromarketing, which is also applied in the field of political marketing, one of the interdisciplinary fields in which neuroscience is applied in politics is political neuroscience (neuropolitics), which focuses on understanding the neural mechanisms underlying the processing of political information and decision-making (Haas, Warren & Lauf, 2020), while a deeper understanding of social behaviour through brain scanning studies has greatly contributed to the emerging field of biopolitics (Friend & Thayer, 2011). However, for the field of political marketing, the crucial question is what new answers neuroscientific findings offer in relation to the existing body of knowledge in traditional political marketing. This especially refers to the contribution of insight into the neural bases of the mobilizing role of political persuasion, i.e., the field in which we study the motives of the individual to take a certain action under the influence of a political message.

Metaphorically speaking, the development of neuroscience enables us to open the “black box” of cognitive processes such as judgment formation and decision-making, and the opening of “the neuronal content of the black box can no longer be ignored” (Changeux, 1997: 97). This dissertation deals precisely with indicating how the opening of this “black box” cannot be ignored in terms of integrating neuroscience knowledge into the body of knowledge in the field of political marketing, i.e., political persuasion. Unlike psychology, which has enabled the study of the appearance, functions, behaviour, and overall exterior of this “black box” and its significance for understanding human behaviour and has proposed assumptions about its content and mechanisms, neuroscience enables insight into its content and the activity of that content under the influence of external stimuli. If we translate this metaphor to the field of political marketing, we arrive at the question — what is the significance of the possibility of insight into the content of that “black box”

(to the extent allowed by the current development of neuroscience) in the context of reactions to political messages, and how does this transform existing knowledge in the study of the effects of political marketing? In other words, what answers does neuroscientific insight into the content of consciousness offer to questions concerning what mobilizes a person under the influence of a political message, what is the background of their motive to receive a political message in a certain way, and how do those answers differ from those on which political marketing knowledge is based?

There are divergences among authors who view neuroscience as a tool for transforming all previous knowledge about human nature, and those who believe that even scientists studying neuroscience do not yet fully understand what their tools actually measure, or whether existing theoretical and conceptual constructs will survive the next wave of technological and methodological innovations (Slaby, Haueis & Choudhury, 2012). While the end of the last century was marked by achievements that allowed us to observe brain processes on a screen, the beginning of this century has been characterized by efforts to translate the images from that screen into knowledge that will not only upgrade and transform various sciences, but also influence how different areas of social reality are managed. Returning to the previously mentioned metaphor, if neuroscience enables insight into the contents of the “black box” of human consciousness, the application of neuroscience transforms political marketing in a way that it can also be viewed as a field of instrumentalization of knowledge about that content for persuasive purposes.

1.2 Formulation of the Research Problem, Subject, and Goal of the Research

Since political marketing emerged as a commercialized variant of propaganda, which is an organized form of political persuasion (Slavujević, 2007), it can be said that the goals set by political marketing are as old as the efforts of political message bearers to find the most effective ways to convince those to whom they are addressing. However, in the field of examining the mobilizing role of political persuasion, and considering this assertion, the question arises — what should they convince people of? In other words, is effective political persuasion aimed at attitudes or behaviours of those to whom it is addressed? Or perhaps at something else? Jacques Ellul offered an answer to this question in the 1960s when he proposed a reversal in the order of the series of the propaganda process, arguing that effective propaganda is aimed at changing behaviour rather than changing attitudes and beliefs, referencing the then-progress in scientific research in psychology and sociology. Besides stating that effective political persuasion implies influencing behaviour change before any potential change in attitudes or beliefs, it is important to note that his thesis also contains the provision that an individual is “irrationally” led into the process of action before an influence is exerted on their attitude (Ellul, 1965: 25).

However, Ellul does not specify the nature of this irrationality, which is consistent with the practice in which all reactions that could not be explained rationally and logically, and for which no regularity could be established even after the development of psychology offered significant guidelines and answers, remained labelled as “irrational.” One of the key challenges during the

development of political marketing precisely related to attempts to demystify the field of the irrational, that is, to investigate the motives of an individual to engage in a certain action and the role of emotions during that process. In this sense, the development of neuroscience, which has enabled direct insight into brain functioning, plays an irreplaceable role in efforts to overcome this challenge in the field of political marketing. While the development of psychology and sociology in the 1960s represented a key platform for Ellul's thesis that effective propaganda is aimed at mobilization, rather than attitudes or beliefs, in the 21st century it is necessary to offer guidelines on what impact the development of neuroscientific knowledge has on the study of the effects of political marketing.

Faced with the challenge of studying the effects of political marketing of providing an answer to the question of what constitutes the "irrationality" mentioned by Ellul - that is, what drives an individual to take a certain action - insight into the neural bases of an individual's reaction under the influence of a political message as a marketing stimulus certainly offers new knowledge about the process of political decision-making. When Drew Westen, one of the world's leading researchers in psychology, neuroscience, and political marketing and a pioneer in studying the role of emotions in political decision-making, presented, based on the results of a neuroscientific experiment he conducted with his colleagues (Westen et al., 2006) (throughout the study, it will be referred to as Westen's experiment), the conclusion that the political brain is actually an emotional brain (Westen, 2007) and that the activation of emotions is directly related to the activation of the motivated reasoning mechanism, he offered guidelines for answering the question about the content of the aforementioned "irrationality."

Furthermore, the results of his experiment opened up space for a completely new aspect of studying the role of emotions in the political decision-making process. Westen's conclusion that the political brain is essentially an emotional brain points to the key role of emotions in situations where motivated reasoning is activated in an individual exposed to a political message contrary to their own attitude, for the purpose of protecting their own stance against arguments and evidence inconsistent with it. By investigating the neural bases of motivated political reasoning based on the results of the neuroscientific experiment (Westen et al., 2006), he claims that changes in the attitudes of the recipient of a political message occur through changes in emotions, not information (Westen, 2007). This experiment represents one of the most significant examples of the scientific application of neuroscience in the field of political marketing and raises the question of the position of emotions in the persuasive sequence. Comparing the results of Westen's experiment with Ellul's thesis, developed decades before the rise of neuroscience, highlights the potential of neuroscience to offer a new level of testing theses in the field of political marketing effects and to fill the gaps in those theses.

Before Ellul proposed a reversal in the persuasive sequence, the study of propaganda focused on persuasion aimed at changing attitudes and beliefs. Ellul put forward the thesis that effective propaganda focuses on behaviour, meaning that the goal of political marketing is to convince recipients to engage in a certain action, i.e., change behaviour. When Ellul states that an individual is led into that action by irrational means, his remark essentially illustrates what might be the greatest challenge in studying the effects of political marketing — how to explain the motive of an individual to even approach behavioural change, which according to Ellul is a key element of effective political persuasion. By discovering that emotions have a dominant role in activating

motivated reasoning in subjects, Westen actually provides a guide for overcoming this challenge, and his neuroscientific examination raises the question of whether effective political persuasion is directed at emotions before behavioural change occurs. In that case, it could be concluded that political marketing is effective to the extent that it successfully serves as a bridge between the motives of the message sender and those of its recipient, with the influence on emotions being at the foundation of that bridge. Such a conclusion points to the potential applications of neuroscience throughout the entire field of political marketing, and specifically in this dissertation, the focus is on how neuroscientific insight into the activation of motivated reasoning caused by exposure to a political message under the influence of emotions affects the study of political marketing effects. More specifically, whether the findings of Westen's experiment suggest that at the point of behavioural change (taking action) in the persuasive process, emotional change takes precedence. The contribution of applying neuroscientific knowledge to political marketing in this dissertation is concretely investigated by examining how neuroscientific studies can contribute to more effective management of the motivated reasoning mechanism by selecting messages that influence the emotions of the subjects. Derived from this, the dissertation investigates how knowledge of the neural bases of motivated reasoning can be put to use in testing theses on propaganda effects, i.e., how motivated political reasoning affects the effects of political persuasion. **The subject of this research concerns the nature and scope of neuroscience's contribution to political marketing in studying the role of motivated reasoning in examining the effects of political persuasion.**

The results of Westen's research serve precisely to clarify what Ellul's thesis designated as "irrational," but they also raise the question of whether and how the application of neuroscientific methods can provide answers to situations where traditional political marketing has failed to offer more precise explanations - namely, why an individual does not question their stance even when exposed to evidence and arguments supporting the opposing view. Such questions are part of everyday political reality. As participants in political life and consumers of political marketing, most of us have often wondered how it is possible that those supporting a different political option do not consider the evidence and arguments presented by the option we support. Likewise, most of us rarely question our own stance when faced with arguments and facts presented by the opposing side. This is especially true in situations where we notice contradictions, inconsistencies, and falsehoods in the political options we do not support, and we do not understand how voters supporting that option fail to recognize what seems completely obvious to us. Effective political marketing is, simply put, based on a kind of "juggling" through political reality grounded in these questions - how to maintain support despite political opponents "attacking" our argumentation, and how to win the support of those who back a different option or are undecided. However, a particular challenge arises when individuals do not respond rationally to political messages and when addressing them with rational arguments provokes no reaction or even strengthens their initial stance.

This dissertation starts from the premise that research on the impact of political messages on changing behaviours and attitudes or beliefs must begin by studying the circumstances under which attitudes are retained despite message content containing clear arguments and evidence opposing those attitudes. In other words, to speak about the effectiveness of political marketing in influencing changes in behaviour and attitudes, one must understand what makes certain attitudes resistant to change. It is clear that the aforementioned puzzlement over the retention of attitudes by those supporting opposing options - and the lack of such puzzlement regarding our own

attitudes - relates to the rationalization of our political motives for supporting a given political option. However, the development of neuroscience has raised the question of what new insights into the decision-making process can be gained from understanding the neural bases of activating such motivated political reasoning. Moreover, considering that the results of Westen's neuroscientific experiment suggest that the political brain is primarily an emotional brain, this raises the question of how such neuroscientific knowledge can be integrated into the existing body of knowledge in traditional political marketing to generate new insights into how effective political marketing appeals to this "emotional brain." Returning to the question of whether effective persuasion targets attitudes or behaviour, Westen's experiment results justifiably raise the possibility of a third option - that effective propaganda targets emotions. Specifically, can data obtained from neuroscientific studies of motivated reasoning influence the traditional understanding of the persuasive sequence?

Westen's experiment provides answers to questions arising from the encounter between traditional political marketing techniques and situations in which individuals, despite being confronted with arguments and evidence contrary to their views, remain attached to their stance, often even strengthening it. Under such circumstances, political marketing focused on the rational component of attitudes becomes ineffective, and attention shifts to influencing motivational and affective components. However, it is precisely in this field that political marketing faces a challenge—if individuals are irrationally led into action, and if being led into action is key to effective political marketing, it clearly follows that understanding the content of this "irrationality" is crucial for comprehending the persuasive process and thus for more effective management of that process. Therefore, the results of the experiment conducted by Westen (Westen et al., 2006) potentially offer a platform for testing and expanding Ellul's thesis, opening the possibility for a more precise description of the course of the persuasive process (the sequence of influence on the individual in the political persuasive process), just as the development of psychology and sociology influenced the transformation of that sequence in the case of Ellul's thesis.

Since Ellul published his thesis, a substantial body of knowledge on the influence of emotions on political decision-making has developed. Nevertheless, it was only with the development of neuroscience that insight into the neural bases of processes involving emotion activation during political decision-making was enabled. This dissertation raises the question of how insight into neural signals of persuasive potential of an information (Kaplan et al., 2016) transforms the field of propaganda studies, whether examining the neural bases in the context of attitude change or the neural mechanisms underlying resistance to attitude change. It is important to note that although this study focuses on the neural bases of emotion activation under the influence of political messages, the affective domain is studied from the perspective of its organic connection to cognitive information processing (Zajonc & Markus, 1984; Cacioppo & Visser, 2003).

Neuroscience has the potential to examine the credibility of traditional political marketing foundations at a level that was not possible before its development. This means neuroscience opens the possibility of changing the scientific method of studying political marketing effects—transforming what was previously speculation, synthesis of experiences, observations, or applications of psychological knowledge in political marketing into more precise verification through insights into neurophysiological activities (Glimcher, 2003). Therefore, this dissertation

aims to use neuroscientific knowledge to test and enhance the theses of political marketing, as such an approach could offer a better understanding of the persuasive process.

It was not until the early 1980s that the role of emotions in marketing began to be studied seriously (Veneziano & Ramsay, 2011), and in 1985, an electoral behaviour marketing model was created in which feelings were one of seven relevant factors influencing voters' political choices (Newman & Sheth, 1985). Thus, the recognition of the importance of emotions in the context of persuasion mechanisms and effects is certainly not directly linked to the development of neuroscience, but neuroscience has enabled insight into the neural bases of affective states and reactions. Considering findings that suggest consumer, or voter, preferences reflect behaviour primarily based on affect (Zajonc & Markus, 1982), the significance of studying the contributions of neuroscientific methods to political marketing is evident. The application of neuroscience to determine the neural bases of emotions is especially significant because the processes termed the "emotional brain" typically operate more in the unconscious than in the conscious domain (Franks, 2006). Decades of research have shown that most mental processes occur at an unconscious level, including consumer decisions (Cherubino et al., 2019), and mental and physical changes associated with emotions occur before we become aware of them (Brader, 2005). It is necessary to note here that political neuromarketing cannot be equated solely with the study of emotions' influence on political decision-making, as this field also significantly involves neural bases of other mental processes such as cognition, motivation, perception, and so on, and that "automatism" is not exclusively linked to mental processes directly related to emotion activation.

However, this dissertation focuses on investigating what insights the introduction of the neural bases of motivated reasoning (as an element of persuasion) brings to the study of political persuasion effects when emotion activation accompanies the mechanism's activation in the context of exposure to contradictory political messages. Simply put, the dissertation studies the persuasive process in which a recipient remains attached to their stance despite confronting data and evidence opposing it, and the role of activating various cognitive states, with particular emphasis on emotional activation in that process. Research shows that neuroscience in the field of political marketing can provide answers in this area that cannot be reached by traditional observation and self-reporting techniques. Given that the reliability of traditional marketing research depends on whether respondents truthfully report their sensations and thoughts (Cherubino et al., 2019), neuroscience opens completely new dimensions in marketing by allowing direct insight into which parts of the brain and in what ways are activated due to exposure to a given stimulus.

Thus, neuroscience removes the barriers inherent in indirect reporting of reactions, offering data on immediate brain activities such as those revealed in Westen's experiment. Furthermore, Zajonc (R. B. Zajonc) and Markus (H. Markus) (Zajonc & Markus, 1982) suggested as early as the 1980s that a strong emotional foundation, developed before cognitive elaboration, can be changed only by methods directly impacting emotions on one hand and linking cognitive components on the other, which certainly points to the importance of understanding the neural bases of emotions for the field of studying the effects of persuasion on attitude and behaviour change. Although this represents only one perspective on the relationship between emotions and cognition, it is highlighted due to its significant agreement with findings from Westen's experiment, which was conducted decades later using neuroscientific methods. However, despite the obvious importance of neuroscientific knowledge for political marketing, there is a noticeable

gap in studying the role of neuroscience in testing and enhancing propaganda theories, which largely underpin contemporary political marketing.

The study of political marketing effects and political persuasion is undoubtedly marked by efforts to provide answers regarding reactions that cannot be explained rationally and logically. The aim of this dissertation is to demonstrate the potential of neuroscientific research in political communication for testing the theses constituting the traditional foundation of political marketing, as well as to fill, or at least guide the gaps in those theses that have so far been filled by speculation. By using neuroscientific methods to test Ellul's thesis and examine the neural bases of the activation of the motivated reasoning mechanism as a reaction to a political message acting as a stimulus, this dissertation aims to contribute to a better understanding of the role of emotions in the context of the mobilizing role of political persuasion and the effects of political marketing, as well as in the study of the role of emotions in political decision-making. The identification of bias and rationalization mechanisms is certainly not new in studying political persuasion effects. However, by gaining insight into the neural bases of these mechanisms, neuroscience offers political marketing a step beyond identifying conscious rationalization processes as consequences of emotional bias, and this dissertation emphasizes the importance of studying this step in researching the effects of political marketing.

Although this research concerns the application of neuroscience to test theses in political marketing and propaganda, the fundamental goal of the research concerns the effects of persuasion. In other words, whether we look at the direct application of neuroscience for persuasive purposes or view its use indirectly as a means of testing traditional political marketing techniques and theses, in both cases, neuroscience is used to select stimuli to improve the effects of persuasive messages. It is important to note that such testing can only be considered conditional, as there is still no clear knowledge of how mental representations are encoded at the neural level. However, the development of knowledge about the functions of different brain areas and the ability to observe which of these areas are activated during exposure to stimuli provide a basis for neuroscientific testing of traditional theses. The significance of such testing lies in the fact that even if definitive answers cannot currently be provided, they can certainly serve as guidance for further research or offer a basis for alternative conclusions. **The primary goal of this research is to better understand, through neuroscientific methods, the impact of emotions and the activation of the motivated reasoning mechanism on the study of political marketing effects (changes in attitudes and behaviour).**

1.3 Theoretical Framework

The theoretical framework of this dissertation is based on political communication, with a special focus on its persuasive function. Starting from the premise that "there is hardly any human communication without elements of persuasion" (Slavujević, 2007: 11), and that the field of research into the nature and effects of persuasion investigates the conditions for obtaining consent for an individual, group, or mass to behave in accordance with the communicator's intentions, it is justified to study these conditions also from the perspective of insight into their neural bases, i.e., from the perspective of neuroscience. This dissertation investigates how knowledge from

neuroscience demystifies the effects of persuasion, or the “triggers” of these effects as described or assumed within traditional studies of propaganda. Thus, since this work does not analyze neuroscience from a biological but from a communication perspective, the theoretical framework is based on political communication as a broader concept, political persuasion (as a function of political communication), and political marketing as narrower concepts. Persuasion will be taken as a key term, the connective tissue linking the field of political marketing and the application of neuroscience in this area, and the subject of the dissertation will be investigated in the context of Ellul’s thesis on the propaganda process (Ellul, 1965). From the neuroscience perspective, the theoretical framework will rely on cognitive neuroscience, affective neuroscience theory (Panksepp, 1998), neuroscientific studies on motivated reasoning (Westen et al., 2006), and theories on the primacy of affect (Zajonc, 1980). If “networks of associations of images, ideas, and feelings that become connected over time constitute neural patterns that structure emotions, feelings, and consciousness” (Castells, 2013: 138), the theoretical framework of this dissertation implies viewing communication through the perspective of these neural patterns, i.e., linking the fields of neuroscience and political persuasion in the context of investigating how knowledge about influencing these neural patterns corresponds with knowledge about the effects of political persuasion.

Although this dissertation investigates the contribution of the findings of Westen’s experiment in relation to Ellul’s thesis on the propaganda process, which ultimately concerns the effects of political marketing, it is important to note that the essence of the research is not the study of effects but the potential of neuroscientific research, such as those conducted by Westen, to transform the way such studies are conducted. Since it corresponds with the results of Westen’s research, the study of the impact of affective components of the neural bases of motivated political reasoning in this dissertation will also rely on Panksepp’s theory (J. Panksepp), one of the most influential evolutionary neuroscience theories (Panksepp, 1998). This theory was selected because, as a theory dealing with the evolutionary and biological bases of emotions, it is well-suited to the study of the role of emotions in activating motivated reasoning. The inclusion of affective neuroscience theory in addition to cognitive neuroscience in this dissertation aligns with findings in neurobiology and neurophysiology that suggest our brain is largely emotional, with only a few structures associated with conscious and voluntary activities (Ohme, Matukin & Szcursko, 2009).

Early emotion research believed there were no brain centers directly linked to emotion activation, and the development of science toward identifying brain areas directly involved in emotional states was crucial for studying the biological bases of emotions (Davidson et al., 2000). However, since this dissertation investigates the application of neuroscience in political marketing through the study of the neural bases of motivated reasoning, which is part of a cognitive process, cognitive and affective neuroscience are not opposed in this study. On the contrary, this dissertation will demonstrate the importance of investigating the neurological bases of affect to better understand cognitive processing, focusing on the relationship between emotions and cognition. Moreover, this represents one of the scientific contributions of this dissertation, given that existing literature in political neuromarketing and neuropolitics has mostly relied solely on cognitive neuroscience, largely neglecting the necessity of a “partnership” between affective and cognitive domains for a more complete understanding of the neural bases of political behaviour.

1.4 Research Questions and Hypothetical Framework

The first research question concerns **how motivated political reasoning affects the effects of political persuasion**. This question relates to the role of motivated political reasoning in studying the effects of political persuasion, specifically determining the nature of the connection between the activation of motivated political reasoning and the influence of persuasive political messages on people's attitudes and behaviour. Particularly, the effect of emotions connected to political motives is examined in relation to the effect of data and argumentation contained in the persuasive message. The second research question concerns the contribution of neuroscience to understanding the process of political persuasion and seeks to answer **whether data obtained by investigating motivated reasoning through neuroscientific methods can influence the traditional understanding of the persuasive sequence**.

General Hypothesis

The general hypothesis from which this research starts is that **the persuasive effects of political messages on attitudes and behaviour are more conditioned by the emotional relation towards one's own political motives than by the data and argumentation contained in those messages**.

This hypothesis states that an individual exposed to a persuasive political message makes decisions primarily based on the emotions triggered by their own political motive. This means that if an individual is exposed to contradictory data and argumentation in the message that are not in line with their political motive, they make decisions about taking action or possibly changing their attitude based on the emotions caused by the activation of motivated political reasoning. This hypothesis aims to explain situations in which an individual undertakes a certain action or changes (or retains) a certain attitude despite the lack of a rational basis for that in relation to the content of the persuasive message to which they are exposed.

The First Specific Hypothesis

The results of Westen's neuroscientific research on the role of motivated political reasoning in making political decisions confirm Jacques Ellul's thesis about the direct focus of political persuasion on eliciting the desired behaviour of people through irrational means.

The hypothesis starts from the fact that what Ellul calls irrational introduction into action, Westen explains through research results related to the role of emotions in activating motivated political reasoning. The findings of Westen's experiment regarding the neural bases of motivated reasoning indicate the key role of emotions in situations where the respondent is confronted with arguments contrary to their political motive, which aligns with their political identification. Such Westen's findings confirm Ellul's thesis that effective political persuasion is directed at mobilizing the individual through irrational means, rather than changing their attitude through rational argumentation.

The Second Specific Hypothesis

Activation of motivated political reasoning precedes the phases of behaviour change and attitude change in the propaganda sequence proposed in Jacques Ellul's thesis.

This hypothesis relates to the fact that Westen's findings on the neural bases of motivated political reasoning not only confirm but also complement Ellul's proposed persuasive sequence. Considering Westen's findings that individuals make decisions about behaviour and possible attitude change under the influence of emotions activated in relation to their political motive, this hypothesis assumes that motivated political reasoning should be included in the persuasive sequence before the elements of behaviour change and possible attitude change.

The First Particular Hypothesis

The phases of behaviour change and possible attitude change represent a rationalization of the individual's emotional relationship to their political motives.

Unlike Ellul, who claimed that the possible attitude change represents a rationalization of the previous behaviour change, this hypothesis assumes that during the propaganda process, the emotional relationship of the individual to their political motives is rationalized through action and the formation of attitudes. This would mean that, unlike Ellul's claim that the focus of modern propaganda is on eliciting action, this focus shifts more toward emotion. However, if we consider Ellul's statement that the individual is "irrationally" induced into action beforehand (Ellul, 1965), this tells us that this hypothesis is only conditionally different from Ellul's thesis — the introduction of motivated political reasoning into the persuasive sequence does not contradict Ellul's thesis but complements it by clarifying the process that happens before the individual is introduced into action.

1.5 Methodological Framework and Research Design

The research approach in this dissertation is based on a descriptive analysis of the literature review and a neuroscientific experiment that will be conducted following the model of the previously mentioned Westen's experiment. Participants will be divided into two groups based on their stance on four topics, selected from areas with high polarization in society. During the experiment, participants will be shown four sets of slides on four different topics. The experimental design includes two versions of the slides depending on the participants' positions on the selected topics. Each set will contain five slides — the first slide will present a political message supporting one or the other stance on the topic; the second slide will present a message containing facts contrary to those in the first slide; the third slide will contain a message facilitating rationalization; on the fourth slide, participants respond to a question to rate the level of inconsistency of the presented messages on a scale from 1 to 4; and the fifth slide contains a call-to-action question related to the topic addressed in the previous slides. Additionally, in half of the shown slide sets (i.e., on 2 of the 4 topics), the order of the fourth and fifth slides will be reversed, and for half of the topics, participants will receive versions of slides adapted for the group with opposing views.

Throughout the experiment, participants will undergo measurement of electrical brain activity using EEG (electroencephalography), with a focus on changes in emotional arousal and cognitive states. The experiment aims to investigate the neural bases of motivated reasoning as well as the readiness to undertake action under the influence of this mechanism. Moreover, it aims to measure differences in participant reactions depending on whether they first respond to the question related to taking action or to the evaluation of inconsistency, as well as differences in reactions depending on which version of slides they are exposed to (those adapted to activate motivated reasoning in relation to the stance they support or oppose). The message texts will be a combination of fictional and authentic statements and data, with parts of the messages in the form of statements from relevant sources. Given the challenges of measuring behaviour or undertaking action, this experiment will be limited to measuring behavioural intention. The ultimate goal of the experiment is to test Ellul's thesis that eventual attitude formation follows action (behaviour change) and to examine the role of rationalization and motivated reasoning in the persuasive process.

Considering the expected result that the motivated reasoning mechanism will be more activated during the call to action aligned with the participant's initial stance, the research focus will be on detecting the neural bases of the motivated reasoning process that precedes making such a decision. This focus serves to prove or disprove the hypothesis that the key element of the propaganda process comes before undertaking action, while action and eventual attitude change represent rationalization of the emotional reaction through the motivated reasoning mechanism.

Thus, the main focus of the experiment will be on investigating the neural bases of motivated reasoning positioned between message delivery and action-taking (in this experiment, expressed behavioural intention) and on investigating the role of emotional arousal and activation of cognitive states during this process. The experiment does not aim to provide universal or final answers about the process of attitude formation under the influence of persuasive political messages; rather, this process is examined exclusively under conditions in which the message as a stimulus activates the motivated reasoning mechanism and enables insight into the neural bases of this mechanism's activation. Furthermore, this experiment does not explore the limits of motivated reasoning, but refers only to situations that occur before the activation of the so-called affective tipping point, where the motivated reasoning mechanism ceases to function. Therefore, the experiment relates only to the conditions that Ellul calls irrational induction into action (Ellul, 1965), without denying that undertaking action can also be a result of an individual's rational decision. Hence, this experiment investigates the topic of the dissertation under the following conditions — confrontation of participants with contradictions relative to their initial stance and examining the mobilizing role of political persuasion under the influence of motivated reasoning. The experiment is aimed at examining the neural bases of participants' reactions under these conditions.

Since the research will also involve comparing the results of this experiment with Ellul's thesis, in addition to the experimental method, this dissertation will use the comparative analysis method. Through analysis of research results and application of the synthesis method, conclusions will be presented concerning the contribution of insights into the neural bases of motivated political reasoning in the field of political marketing. The research also indirectly relies on the behavioral epistemological paradigm, starting from the basic question addressed by the behavioral approach

to social and political analysis - “Why do people behave the way they do?” (Marsh & Stoker, 2005: 43). If behaviour is seen as an act that includes muscle reactions and movements in space, and if this act is distinguished from implicit behaviour, i.e., thinking (Milosavljević and Radosavljević, 2006), the development of neuroscience enables insight into the “behaviour of neurons,” i.e., the “neuronal act,” which represents the physiological basis of implicit behavior and thus explicit behaviour as well. This dissertation focuses on the description and scientific explanation of the nature and scope of the contribution of the application of neuroscience in studying the role of motivated political reasoning, relying on the behaviourist S-O-R scheme (Milosavljević and Radosavljević, 2006), i.e., on the role of neuroscience in better understanding the intervening variable between stimulus and response in the context of the conditions under which the mentioned experiment is conducted.

1.6 Scientific and Social Contribution of the Research

The significance of this research lies in exploring the potential transformation of the study of the propaganda process in the context of neuroscience development and providing guidelines for further research on the applicability of neuroscience for testing classical theses in the fields of propaganda and political marketing. This study concerns the use of neuroscience to examine those parts of the propaganda process labelled as “irrational” in the literature and explained mainly through speculation. The expected outcome of this work is a sort of demystification of the part of the propaganda process related to the immediate exposure of the recipient to the propaganda message, before any change in behaviour or attitudes occurs. This demystification refers to insight into the neural bases of the motivated reasoning mechanism and the role of emotions in this process.

1.6.1 Scientific Contribution of the Research

The scientific contribution of this research lies in demonstrating the contribution of neuroscience to the field of political marketing by identifying the neural bases of motivated reasoning as part of the cognitive and affective processing of political messages. Through this research, the importance of neuroscience’s potential use for testing theses in the field of political persuasion using neuroscientific methods is also highlighted. The significance of such testing lies in the possibility of neuroscientific confirmation or refutation of what has been largely speculative. The scientific contribution of this work also involves pointing out the possibility of transforming the field of contemporary propaganda as shaped by neuroscience development, similarly to how modern propaganda was transformed by advances in psychology and sociology. Moreover, this work does not consider neuroscience solely from the commonly used perspective of cognitive neuroscience but also through the lens of affective neuroscience. Cognitive and affective neuroscience are presented here not as separate, but as complementary fields. This will be achieved by investigating the neural bases of affective mechanisms during the activation of motivated reasoning as an element of cognitive processing. Thus, the key scientific contribution of this work should be the application of neuroscience in clarifying the role of emotions in the propaganda process under certain conditions and demonstrating the potential use of neuroscience in testing theses from the field of political persuasion. This research opens the possibility of neuroscientific evidence that effective political persuasion targets emotions triggered by an individual’s political

motivation. In addition, this study will present an experimental design that establishes a model for examining the role of the neural basis of motivated reasoning in the persuasive process.

1.6.2 Social Contribution of the Research

The social contribution of this research is practical and concerns the use of knowledge from neuroscience and neuromarketing for socially beneficial purposes. In this sense, the subject of this work relates to all citizens as recipients of political marketing content and as participants in political communication. The aim also includes a better understanding of how individuals, groups, and masses respond to stimuli they encounter in everyday life that are related to the subject matter of this work. The social contribution also involves demystifying the management of emotions through political marketing, as well as the fact that, to the author's knowledge, this is the first study of its kind conducted in this field in our country.

1.7 Description of the Content by Chapters

The introductory chapter will formulate and present the research problem, as well as the subject and aim of the research. This chapter will also include an overview of the theoretical, hypothetical, and methodological frameworks, as well as the scientific and social justification of the research, and a chapter-by-chapter overview of the dissertation's content.

Since the role of neuroscience in political marketing is investigated in this work from the perspective of political communication, the second chapter focuses on all elements of political communication relevant to the subject of this research. This includes presenting the diversity of definitions of the concept of political communication, various models of communication, and its functions.

The third chapter will present relevant determinants of persuasion as a key concept in studying the relationship between neuroscience and political marketing in this research. This chapter will also illustrate the relationship between persuasion and political communication, as a central concept directly indicating the nature of neuroscience application in this field. In particular, the structure of the persuasive message and the process of persuasive communication will be presented, as well as the interplay between persuasion and free will.

The fourth chapter addresses political propaganda as organized political persuasion. In addition to outlining the historical development of propaganda and different understandings of the concept of political propaganda, this chapter will also present the functions and types of political propaganda, as well as its characteristics. Within this chapter, Ellul's concept of propaganda and his thesis on the propaganda process will be presented, along with the psychological effects of propaganda.

The fifth chapter focuses on political marketing as a commercialized variant of political propaganda. This chapter will present the development of political marketing, its types, and defining elements. Alongside theoretical foundations and basic political marketing strategies, this chapter will specifically explain the principle of efficiency and the relationship between

persuasion, propaganda, and political marketing. The sixth chapter will present theories on the effects of political marketing.

The seventh chapter explores emotions and the relationship between emotions and cognition. This chapter will present theories and types of emotions, emotional episodes, and affective processing. It will also explain how emotions can be measured and which brain regions are responsible for emotions. Categories of emotional stimuli and the influence of emotions on multiple levels of cognition will be specifically addressed.

The eighth and ninth chapters address the mechanism of motivated reasoning and the explanation of research related to the neural background of this mechanism. These chapters will also present studies on the relationship between emotions and deductive reasoning, with special attention to the relationship between integral and incidental emotions. The paradigm of motivated political reasoning will be introduced, along with a dedicated focus on the influence of emotion valence on decision-making and theories of readiness for action.

The tenth chapter is devoted to neuroscience and will present the definitions and historical development of neuroscience, as well as the concept and techniques of neuromarketing. The importance of studying attention, memory, and emotions in neuroscience, as well as the role of neuroscience in influencing attitudes, will be especially emphasized. This chapter will introduce the theoretical framework of the neurophysiological bases of attitudes in the context of the relationship between affective and cognitive processes, as well as the role of neuroscience as a “bridge” between emotions and feelings. Panksepp’s theory of affective neuroscience will be presented in particular.

The eleventh chapter will present the research results, while the twelfth and thirteenth chapters will interpret the experimental results and draw the conclusions of the research, including a discussion of the results and conclusions.

2. Political Communication

2.1 Defining the Concept of Political Communication

This research starts from political communication as the broadest, yet fundamental, theoretical framework. Although this work investigates the neural bases of the motivated reasoning mechanism and the role of emotions in that process, this investigation is situated within the field of political communication. This means that neuroscience in this study functions primarily to enhance knowledge in the field of political communication, and subsequently, based on that, in the field of political marketing. The specificity of this research lies in examining certain elements of political communication at the level of neural activity in the brain. However, these insights serve the purpose of better understanding human behaviour under the influence of political persuasion, as one of the functions of political communication.

What makes political communication an interdisciplinary field is the fact that all knowledge from other human and social sciences simultaneously forms the foundation for knowledge about political communication. This also applies to knowledge from neuroscience. In other words, to better understand human behaviour in the context of political communication, we must understand human behaviour not only as social but also as biological beings. In the era of mass media, the modern individual is almost constantly exposed to direct or indirect political messages. This means that contemporary people, to a greater or lesser extent, are constantly participants in political communication, primarily through the influence of political content in the media on political attitudes and behaviour. Of course, political communication occurs in a much broader spectrum than just receiving messages via mass media, but this form of reception is certainly the most prevalent and intense. However, an unanswered question in the field of political communication effects is why, amid this abundance of political messages, some provoke changes in attitudes and behaviour, while others do not affect people. This question becomes even more complex considering that in democratic societies, people have access to media content disseminated by various political options and actors, all aimed at using media to persuade people of the correctness of their option, which usually includes attempts to undermine the arguments of other political options and actors.

Numerous theories concerning the effects of mass media and political marketing mostly rely on knowledge from psychology. However, the development of neuroscience inevitably points to the necessity of integrating insights from neural activity in the individual's brain into the study of political communication. When Louw (E. Louw) pointed out that Plato's shadows in the cave are helpful when thinking about political communication because today "in the background of the cave there is a television screen receiving created and medialized images of the world broadcast from outside" (Louw, 2013: 20), he suggested through this metaphor that critical questions must be asked regarding the motives of those who create these television images and the ways they do so. However, neuroscience knowledge regarding how individuals react to political messages indicates that it is necessary to understand how reactions are created in the brain according to the individual's motives and emotional responses. In other words, and in the context of Louw's metaphor, neuroscience enables us to better perceive the "shadows" created by our brain producing "distorted images," meaning that to fully interpret contemporary political communication, it is not

enough just to understand how political messages are created, but equally important is understanding the overall mechanisms of how those messages are received. Neuroscience allows us to investigate that part of the “cave” - that is, how the shadows created by political messages in the recipient’s brain become reality. These “distorted images” represent one of the determinants of political communication, and therefore every definition of political communication must also be viewed in the context of what Lippmann calls the pseudo-environment (Lippmann, 1997), that is, how an individual perceives the environment.

Therefore, understanding political communication requires considering that an individual primarily reacts to a kind of stimulus created by their perception of reality, given that there is a difference between “the outside world and the pictures in our heads” (Lippmann, 1997: 3). In line with this interpretation is the fact that between the external stimulus and the reaction there is the creation of an internal stimulus in the form of a mental image and the feelings that the external stimulus evokes in us. Pointing out that behaviour is also a response to the pseudo-environment (Lippmann, 1997), meaning that the stimulus causing an individual's behaviour is not only in objective reality, further complicates the attempt to define political communication. This means that political communication does not refer only to the exchange of messages but also to how those messages become stimuli for the reactions of their recipients. One of the most important conditions for mutual understanding among people is the clarification of the semantic field of messages, which presupposes the isomorphism of meaning among communication participants (Radojković and Miletić, 2006). However, communication does not only encompass the exchange and establishment of meaning but also the emotions that the exchanged messages evoke in the individual and the understanding of mental images those messages evoke in the individual, because only through the overall experience of the received message can the reaction to that message be interpreted.

There are many definitions of political communication, and McNair (B. McNair) notes that every book on political communication should begin by acknowledging that this term is difficult to define precisely, primarily because both elements of the phrase “political communication” are open to various interpretations (McNair, 2011). Therefore, before defining political communication, it is necessary to reflect on the definition of communication in general. The science of communication is founded on the concepts of communicating, or communication, which etymologically derive from the Latin verb *communicare* and the noun *communicatio*. Both words have multiple meanings—the verb can be translated as “to share,” “to make something common,” or “to partake,” while the noun includes meanings such as “behavior,” “connection,” “contact,” and even “traffic” (Radojković & Miletić, 2006). Carey (J. W. Carey) points out that there are two key ways to understand what communication is: the transmission view and the ritual view of communication (Carey, 2009). The transmission view treats communication as the process of sending a message, focusing on how a message is sent from the sender to the receiver via certain channels, with Carey stating that “at the center of this idea of communication is the transmission of signals or messages over a distance for the purpose of control” (Carey, 2009: 12). In this model, the sender’s intent is key to defining meaning, success is evaluated based on efficiency and accuracy criteria, and the goal is to influence behavior or states of consciousness (Ninković Slavnić, 2024). The ritual view, on the other hand, sees communication as something that creates community and emphasizes its role in forming and maintaining shared culture (Ninković Slavnić, 2024).

Denton (R. E. Denton) and Woodward (G. C. Woodward) define political communication as “discussion about the allocation of public resources (revenues), official authority (who is given the power to make legal, legislative, and executive decisions), and official sanctions (what the state rewards or punishes)” (Denton & Woodward, 1990: 14). However, Slavujević considers this definition incomplete because it emphasizes the content of political communication but does not specify its actors. He offers a definition according to which “political communication in contemporary societies consists of processes of exchanging various political contents within the triangle: government - media - public opinion, i.e., among three groups of actors: politicians, journalists, and citizens. It includes all forms of communication in the political sphere regardless of the form of government and social and political conditions, the forms in which content appears, as well as the means used,” and more simply, political communication is described as “the exchange of various contents within the domain of political activities” (Slavujević, 2007: 9). When starting from the premise that “every social relation is simultaneously a communication interaction” (Radojković & Miletić, 2006: 7), one can say that any contact with the political implies political communication.

McNair does not limit political communication to verbal or written statements but also includes visual markers such as “dress, make-up, hairstyle, and logo design, i.e., or all those elements of communication which might be said to constitute a political “image” or identity” (McNair, 2011: 4). Considering that there is no politics without communication, and that an occurrence cannot be designated political if it does not involve communication of political messages, we can say that political communication is as old as politics itself. Although academic studies of political communication are a relatively young discipline, political communication is certainly as old as politics and equally characteristic of ancient Greece and the Roman Empire as well as various modern political systems (Lilleker, 2006). This fact further complicates efforts to find an adequate definition of this term, as it would also imply encompassing the historical development of how people practiced political activities. Political communication encompasses the entire political sphere of action, and “politics is almost everything because it permeates almost all areas of life, activity, and creation” (Životić & Stanojević, 2013: 108). Political communication underlies all functions of the political system and “has existed as long as power and politics, as it has always functioned in the conquest, maintenance, or change of power” (Slavujević, 2007: 9). Therefore, political communication cannot be equated solely with the role mass media play in it, although their role crucially determines the characteristics of contemporary political communication. It can be said that the beginnings of communication studies, mass communication, and political communication are intertwined, and all these studies “shared a common intellectual interest in the effects of mass media communication,” and “from the early period of what was later to be identified as communication study, scholars focused on changes in political behavior (such as voting) as one of their main dependent variables of study” (Rogers, 2004: 4). Such a definition of the essence of political communication research, which relates to a focus on effects and behavioral change, aligns with the positioning of the topic of this research within the theoretical framework of political communication.

In the field of defining political communication, it is necessary to distinguish between traditional views of political communication and models that indicate multiple levels of political communication in contemporary democratic societies. Lilleker (D. G. Lilleker) emphasizes that

“the democratization of the majority of the political systems changed the nature of political communication and political activity moved into the public sphere” (Lilleker, 2006: 5).

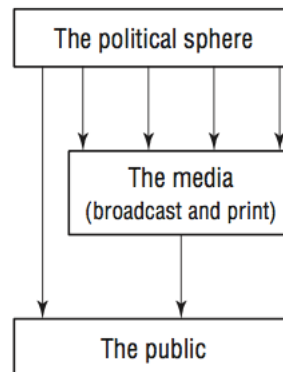


Figure 1 A traditional view of political communication (Lilleker, 2006: 5)

Unlike the traditional model of political communication shown here, the diagram below illustrates the complexity of levels of political communication in democratized societies. A key feature of this model is the two-way communication between key subjects, that is, openness of communication among each of the groups. The course of communication depends on the size of each depicted group or the level of support for a party, group, or cause, as well as the tactics used to convey the message (Lilleker, 2006).

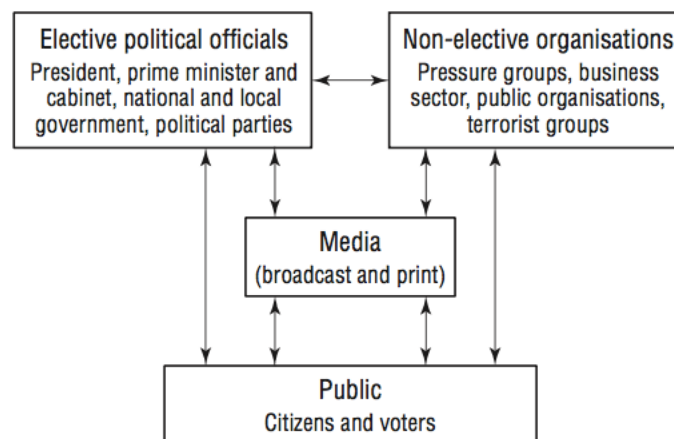


Figure 2 The levels of political communication (Lilleker, 2006: 6)

If we look at the presented overview of definitions of political communication, we see that they differ in terms of which aspect of communication they emphasize and how they attempt to fill the gaps in various definitions. Thus, Slavujević considers Denton and Woodward’s definition incomplete because it excludes actors and offers a definition that includes the actors of political communication, while Rogers (E. M. Rogers) points to the importance of effects, i.e., changes in

behavior. Perhaps the most comprehensive definition is Perloff's (R. M. Perloff), which includes both actors and effects, as well as what political persuasion is aimed at. According to Perloff, political communication is "a process by which language and symbols, employed by leaders, media, or citizens, exert intended or unintended effects on the political cognitions, attitudes, or behaviors of individuals or on outcomes that bear on the public policy of a nation, state, or community" (Perloff, 2014: 30). As key elements of this definition, he highlights political communication as a process, the use of words and symbols, and the key actors.

However, for the research in this study, Perloff's definition is significant because, in addition to the mentioned elements, it emphasizes the orientation of effects on cognition, attitudes, or behavior and stresses that these effects can be intentional or unintentional. This means that, unlike the other definitions mentioned, Perloff's definition considers possible targets of the effects and, particularly importantly, includes cognition alongside attitudes and behavior. In this sense, this definition indirectly includes motivated reasoning as an element of cognitive processing, i.e., it confirms the significance and manner in which the recipient receives a certain political message, and not only those who send the message and its content. Furthermore, this definition points to a broader aspect of political communication than the level of communication related to individuals or groups of people (whether we speak of the actors sending the message or the audience receiving it), indicating that outcomes for institutions and entities are also part of political communication.

Denton and Woodward also define political communication in the context of the sender's intention to influence the political environment, stating that "the crucial factor that makes communication 'political' is not the source of the message" but "its content and purpose" (Denton & Woodward, 1990: 11). Following Denton and Woodward in emphasizing the factor of intentionality in political communication, McNair defines it as purposeful communication about politics, which includes:

(1) All forms of communication undertaken by politicians and other political actors for the purpose of achieving specific objectives

(2) Communication addressed to these actors by non-politicians such as voters and newspaper columnists

(3) Communication about these actors and their activities, as contained in news reports, editorials, and other forms of media discussions of politics (McNair, 2011: 4).

The content of any communication, including political communication, as an exchange "are the products of the human mind, will, emotions, and even the subconscious" (Radojković & Đorđević, 2005: 15), and insight into the neural bases of these processes certainly opens space for the use of neuroscience to better understand the effects of political communication. From all this, it can be concluded that the difficulty of precisely defining the concept of political communication is justified if the goal of the definition is to encompass all its elements and aspects. However, the review and critique of definitions of political communication indicate that the definition of political communication should include:

(a) Content of political communication messages

- (b) Actors of political communication
- (c) Effects
- (d) Intentionality, and
- (e) Direction of effects (cognition, attitude, or behavior).

For the purposes of this research, it is necessary to note that an emotional reaction is considered part of cognitive processing, so these defined elements of political communication also imply the influence of political communication on emotions, that is, the influence of emotions on the cognitive processing of political messages. Therefore, the definition of political communication should provide answers to the questions — what is communicated, who communicates to whom, with what effect and intention, and what the communication is directed at. The justification for applying neuroscientific methods in the field of political communication is especially significant in the context of this last question.

2.2 Elements of Political Communication

To better understand the elements of political communication, it is necessary to first consider the elements of communication in general. The basic scheme of communication consists of (1) communication subjects, (2) the communication act, and (3) the communication situation. Considering these isolated elements of communication, communication can be defined as “a series of communicative acts between communication subjects within a given communication situation” (Radojković & Miletić, 2006: 29). Therefore, communication is observed through the element of participants, the act of communicating itself, and finally the situation in which that communication takes place. Without an analysis of all three elements of the communication scheme, it is impossible to analyze political communication.

In the context of this research, in order to examine the mobilization role of political persuasion, it is necessary to clearly specify who the subjects participating in that persuasive communication are, how this communication unfolds, and in what situation. Only on the basis of a clear understanding of the elements of general, and then political, communication can the role of motivated reasoning in the effects of political marketing be further investigated. Since this research is conducted using a neuroscientific method, i.e., by examining the brain activity of participants, only after clearly distinguishing the elements of communication can the results of the neuroscientific examination be used for analyzing the effects of political communication. In other words, the elements of communication in this neuroscientific research allow us to understand that neural activity, just like communication in general, is influenced by participants’ motives, the communicative act through which the message is transmitted, and the situation in which this process takes place.

Subjects of communication are the message sender, i.e., the emitter, and the message receiver, i.e., the recipient. From a social perspective, message senders can be an individual, a

primary social group, or a social organization, while receivers can be an individual, a primary social group, a structural audience, or a non-structural form of grouping — the mass audience (Radojković & Miletić, 2006: 29).

The communication act represents an interaction that is temporally defined and as such represents the dynamic aspect of communication. Toma Đorđević, who introduced the categories of communicative act and communicative situation in our scientific literature on communication, defines the communicative act as “the totality of psychosocial events that accompany and unify the basic moments of the movement of a message from the emitter to the recipient, including the effects of communication” (Đorđević, 1979: 125). The elements, or phases, of the communication act according to Radojković and Miletić (2006) are determined by the moments of:

1. selection of information from the environment,
2. encoding of the message,
3. interactional transmission of the message, and
4. reception of the message, which involves a) sensory perception of the message, b) its decoding, and c) immediate or delayed reaction to the information.

The application of neuroscience in the field of communication enables us to monitor all phases of the communicative act at the level of neural activity, which provides a deeper understanding of the communication process. At the phase of the communicative act related to the selection of information from the environment, insights gained from observing neural activity allow us to better understand why certain information is selected. By using neuroscientific methods, we can directly monitor the direction of an individual’s attention toward specific information. Knowledge about which part of the brain is activated during exposure to certain information in the communicative act provides guidelines for more precise selection of what information, in which form, and how it will be selected to increase the effectiveness of the message.

The communication situation represents the static aspect of communication and refers to the determining factors that exist as “a set of objectively given circumstances, which have accumulated in a specific time period and space, as assumptions based on which the conditions necessary for each communicative act to reach its psychosocial conclusion are constituted” (Đorđević, 1979: 124). The communication situation relates to the mental-psychological and biological characteristics of communication subjects, the social context, the symbolic system within which encoding and decoding occur, and the characteristics and specifics of communication techniques (Sapir, 1974, as cited in Radojković & Miletić, 2006). In the context of this research, special attention should be given to the mental-psychological and biological characteristics of communication subjects. Although motive cannot be directly marked as an individual characteristic, it certainly represents an element of the communication situation since the effect of the message depends on how the motivated reasoning process is activated. However, when discussing the mental-psychological and biological characteristics of communication subjects, it is necessary to consider that these are variable categories, not only innate traits and capacities. In the field of political marketing effects, we talk not only about the power of a message to strengthen but also to change the attitude, belief, or behavior of the message recipient. In this sense, we can talk about the communication situation as a static aspect of communication only conditionally.

As key elements of political communication, McNair distinguishes: (1) Political organisations, (2) Audience (citizens), and (3) Media (McNair, 2011). Political organisations include political parties, public organisations, pressure groups, and governments, particularly highlighting political actors defined as “those individuals who aspire, through organizational and institutional means, to influence the decision-making process” (McNair 2011: 5). Noting that the key purpose of political communication is persuasion, McNair identifies the audience as the second key factor, as it represents the target group towards which persuasion is directed. He points out that the audience is one of the key factors, “without which no political message can have any relevance” (McNair, 2011: 10). The audience of political communication can be broad, encompassing the entire nation, or narrow, relating only to a smaller target group or an individual. However, regardless of the size and nature of the audience, “all political communication is intended to achieve an effect on the receivers of the message” (McNair, 2011: 10). Chronologically, three types of audience can be distinguished: (1) Face-to-face audience (the oldest, characterized by spatial gathering, simultaneous experience, and unique focus of attention), (2) Mass media audience (spatially dispersed, with no moment of physical gathering at one place), and (3) Diffuse audience (contact with media is neither temporally nor spatially determined, and the experience is dispersed and more integrated into everyday life) (Ninković Slavnić, 2024: 25). In the field of political marketing effects, i.e., examining the mobilizing role of political persuasion, the audience is viewed within the previously mentioned transmission view of communication. For the purposes of this research, the audience is identified with message recipients in a single communicative act, as the direct effect of the message on the recipient is investigated.

As the third key element of political communication, McNair highlights the media - i.e., print and electronic media, as well as online communication channels. Media are not only channels through which messages travel from political actors to the broadest audience, but also vice versa - media report on the state of public opinion and transmit messages from citizens to political actors. McNair notes that when talking about media as an element of political communication, it is necessary to consider the reality that media are not merely neutral and unbiased channels transmitting messages straightforwardly, but the way they convey messages also affects their impact. Thus, media can be seen both as transmitters and creators of political communication. In this context, it is useful to refer to three categories of political reality noted by Kaid (L. L. Kaid). According to Kaid, political reality can be understood as (1) objective reality, which encompasses political events as they actually occurred, (2) subjective reality, which refers to political events as perceived by actors or citizens, and (3) constructed reality, which relates to events as covered by the media (Kaid et al., 1991, as cited in McNair, 2011: 11).

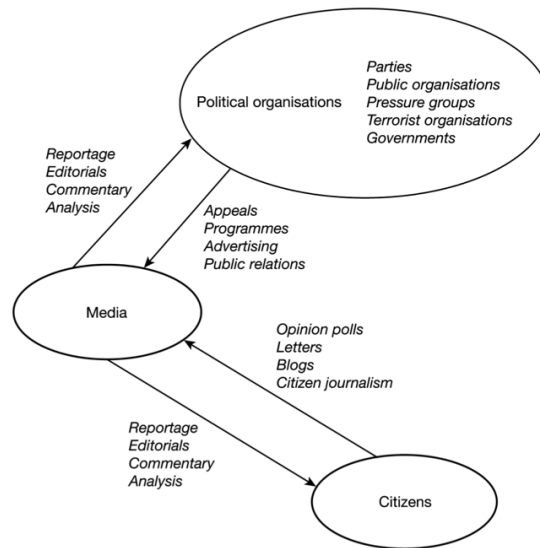


Figure 3 Elements of political communication (McNair, 2011: 6)

The diagram shows that there is two-way communication between the key elements of political communication. The diagram illustrates that the media communicate with political organisations and citizens through reportages, editorials, commentaries, analyses, and other media forms of communication, while political organisations communicate to the media via appeals, programmes, advertising, public relations, and citizens communicate through opinion polls, letters, blogs, and citizen journalism. When comparing these key elements of political communication with the previously presented elements of communication in general, it is clear that the key elements of political communication function as communication subjects, while the mentioned means of two-way communication refer to how communication acts are realised. In relation to the elements of communication, we see that this diagram of political communication omits the communication situation. However, the effect of communication acts, as the dynamic aspect of communication (Radojković & Miletić, 2006), is also determined by the parameters set by the communication situation itself. Given that political communication is not defined solely by the source and content of communication, but also by its purpose (Denton & Woodward, 1990), and that political communication is directed towards achieving effects on individuals' attitudes or behaviour (Perloff, 2014), the question arises whether the effects and the circumstances influencing those effects should also be included in the scheme of basic elements of political communication. In fact, all aspects of the communication situation, when placed in the context of political communication, ultimately concern the influence of the situation in which communication takes place on its effects. This certainly includes how the activation of motivated reasoning and emotions of the message recipient affects the effect that the message will produce at the moment of a given communication act. Thus, in this sense, the communication situation is, among other things, determined by the mental-psychological and biological characteristics of the communication subjects (Radojković & Miletić, 2006), which relates not only to the message sender (his intention) but also to the recipient (the way in which he will receive the message according to his motives and emotions).

Viewing the elements of political communication in this way, it is obvious that insight into the neural activities of the recipient's brain certainly enables a better and deeper understanding of the elements of a given communication. Following these conclusions and placing the elements of communication in the context of political communication, a broader division of the elements of political communication can be proposed, which would include:

- (1) Communication subjects (political organisations, media, and citizens),
- (2) Two-way communication between the communication subjects (through an adapted form of communicative acts), and
- (3) Effects of political communication (conditioned by the communication situation in which the communication act occurs).

2.3 Functions of Political Communication

If political communication can be most simply defined as purposeful communication about politics (McNair, 2011), then it is necessary to clarify what purpose defines political communication, i.e., what its functions are. Slavujević states that political communication has at least three functions: (1) political information, (2) political education and socialisation, and (3) political persuasion (Slavujević, 2007). However, although it is possible and useful to distinguish these three functions of political communication based on the prevailing element (Slavujević, 2007), in practice it is almost impossible to observe a particular communicative act of political communication solely in light of only one of these functions. Slavujević defines these functions of political communication as follows (Slavujević, 2007: 10):

- (1) Political information represents the exchange of information among political subjects – informing about current political events, activities, and personalities, and expressing political interests, attitudes, and convictions of various political actors.
- (2) Political education and socialisation imply teaching people various political knowledge necessary for their inclusion in political life, as well as teaching socially acceptable behaviour.
- (3) Political persuasion relates to the formation, strengthening, change, etc., of people's attitudes about political events and actors and encouraging people to participate in political life.

The challenge in drawing clear boundaries between these three functions lies in their intertwinement, i.e., the fact that there is virtually no political communication that could be characterized by only one function. When Slavujević, illustrating this intertwining of functions, states that “political socialisation and education or, alternatively, political information most often carry elements of political persuasion, just as political persuasion uses educational and informational content” (Slavujević, 2007: 10), such a statement raises the question of whether we can at all speak of a communicative act as political communication if it does not contain an element of persuasion. In other words, the question arises whether the other two functions (political

information and political education and socialisation) are directly or indirectly also in service of political persuasion.

Unlike Lilleker, who interprets the functions of political communication through the context in which communication occurs (2016), Wolton (D. Wolton) sees the basic characteristic of political communication as the confrontation of characteristic types of political discourse, stating that for politicians it is ideology and action, for journalists it is information, and for public opinion it is communication (Wolton, 1990). Accordingly, he states that the main function of political communication is to “prevent the political debate from closing in upon itself” (Wolton, 1990: 21). Such a defined main function of political communication relates to its role in preventing the closure of political debate through confrontation of different discourses, which would lead to the separation of politics from the rest of social reality. Accordingly, he distinguishes three functions that political communication performs in regulating that process (Wolton, 1990: 21):

1. Identification of new problems as they arise (with politicians and media playing a key role in this function)
2. Contribution to their integration into the political debates of the day by providing them with a kind of legitimacy of sorts (with politicians and public opinion research playing a key role here)
3. Facilitating the exclusion of topics that have ceased to be conflictual or about which there is a temporary consensus of opinion (with the media playing a key role in this function).

From all of the above, it can be concluded that the dominant function of political communication is to persuade the message recipient in order to obtain support, which ultimately aims at acquiring power, i.e., authority. This persuasion is carried out through the informative function of political communication, as well as through the function of education and socialisation. However, when we speak about the function of political communication in the context of the permeability of the “membranes” of communication between subjects of political communication, we must take into account the fact that it involves the confrontation of different motives of the subjects who send the message, who receive it, and who transmit it. This means that political communication does not function in a neutral space, but in a space that implies the political struggle of different actors who strive not only to convince others of the content of their message but also to neutralise the influence of persuasion coming from their political opponents. Thus, for example, when we talk about the informative function of political communication, it is necessary to consider whether the sending of information in one communication act takes place in circumstances in which the other side sends opposing information. And here again, we are on the ground of persuasion, which implies not only convincing people that the sender of the message is right but also that the other actor sending the opposing message is wrong. Therefore, the functions of political communication cannot be analysed outside the context of the existence of a kind of political competition, which is especially true for political communication that takes place in democratic systems.

3. Political Persuasion as a Function of Political Communication

3.1 Definition of Political Persuasion

Since political persuasion represents one of the fundamental functions of political communication, in order to understand how persuasion occurs, who persuades whom, and with what goal, it is necessary to consider the relationship between political persuasion and political communication, which will be discussed later. However, before that, it is necessary to define the concept of persuasion itself and the historical foundations of political persuasion. Authors define the concept of persuasion in various ways depending on which elements of convincing they emphasise. The diversity of definitions can be seen already by examining the different verbs in our language that express forms of persuasive activity. Thus, Slavujević points out the following verbs related to persuasion - “to convince”, “to assure”, “to urge”, “to advocate” (something), “to stand up for” (something or someone), “to recommend”, “to preach”, “to lead” (someone to something), “to represent” (a viewpoint or person), “to suggest”, “to prove”, etc. (Slavujević, 2007: 11). This display of different verbs related to the process of persuasion already indicates the diversity of ways in which persuasion is carried out, as well as its goals. From the previous series of verbs, it is noticeable that persuasion implies direct convincing, urging, or assuring, but can also take an indirect form related to activities such as recommending or suggesting, as well as a covert form, for example, when leading someone to something.

What is common to all these meanings is that persuasion relates to influence on the attitude structure, or as Perloff states - “we have attitudes that shape our world in ways we don’t always recognise”, and “persuasion is the study of attitudes and how to change them” (Perloff, 2017: 4). Such a definition by Perloff points to three important aspects of the persuasion definition: (1) Orientation towards attitude structure, (2) The fact that persuasive effects do not always occur at a conscious level, and (3) It opens the question of whether persuasion relates only to changing attitudes or also to their retention or reinforcement. All three mentioned aspects are significant for studying persuasion through the lens of neuroscience and using neuroscientific methods, especially in the context of activating the motivated reasoning mechanism and the influence of emotions on political decision-making.

When speaking of orientation towards attitudes, neuroscience allows us to gain a better understanding of the influence of a persuasive message on the attitude structure through insight into neural activity during the persuasive process. This specifically means that by tracking which part of the brain is activated during exposure to a particular persuasive message and in what way we can much better understand the effect that message produces. Also, the fact that Perloff points out — that we do not always recognise how attitudes shape our world — indicates the subconscious realm where the use of neuroscientific methods can certainly provide additional answers and guidance compared to traditional methods of attitude research. However, if we consider the mechanism of motivated reasoning and the influence of emotions on that mechanism, or the reception of the persuasive message in general, Perloff’s thesis that persuasion is directed towards changing attitudes becomes questionable. Similarly to Perloff, Nimmo (D. Nimmo) in defining persuasive communication focuses on attitude change, emphasising that the key intent of persuasion is conversion, and communication aimed at changing the intensity of an existing attitude (reinforcement, neutralisation, crystallisation, or activation) is usually ineffective

(Nimmo, 1970). However, if persuasive effects also imply the activation of motivated reasoning, which is directed at maintaining existing attitudes despite confronting contradictory information/data, then persuasion cannot be spoken of only in the context of effects related to attitude change, but also in relation to their retention. Furthermore, Perloff's definition excludes the entire field of political persuasion that is consciously aimed at maintaining attitudes, as in cases when political actors address their supporters. Finally, this definition excludes an important aspect of political persuasion effects related to behavioural change, i.e., the mobilising role of political persuasion.

For the purpose of as precise a definition of political persuasion as possible, it is necessary to take into account that authors define political persuasion in various ways. Here are some definitions of persuasion:

- “Political persuasive activity consists of a set of complex and lasting communication processes undertaken with the aim of convincing people of the correctness, usefulness, acceptability, etc., of certain political contents and is directly aimed at the attitude structure of the individual, at the relations they (should) have towards a certain political object. It targets all three elements of the attitude structure: (1) the rational, cognitive component, (2) the value or emotional-affective component, and finally (3) the motivational, volitional or action component” (Slavujević, 2007: 11).
- “Political persuasion represents a set of enduring communication processes undertaken with the aim of influencing the formation, consolidation, and change of people's attitudes about a certain political issue, event, or actor, and of encouraging people's engagement in political life. It can be spontaneous or organised” (Atlagić, 2011a: 276).
- “Successful intentional effort at influencing another's mental state through communication in circumstances in which the persuadee has some measure of freedom” (O'Keefe, 2016: 4).
- “A symbolic process in which communicators try to convince other people to change their own attitudes or behaviours regarding an issue through the transmission of a message in an atmosphere of free choice” (Perloff, 2017: 22).

Slavujević states that persuasive activity can also be defined as what Habermas called strategic interaction (Slavujević, 2007). Namely, Habermas (J. Habermas) distinguishes communicative interaction aimed at understanding and establishing social integration from strategic interaction, which aims at influence and success (Habermas, 1984), or “represents a form of imperative influence on people's consciousness” (Slavujević, 2007: 11). Thus, conditionally speaking, the concept of persuasion can be defined also by drawing a parallel with Habermas's theory related to the division into strategic and communicative action regarding whether the action is oriented towards success or consensus, and whether it occurs in a situation that could be described as social or non-social. Accordingly, persuasive communication could be classified as an action oriented towards success in a social situation.

Perloff highlights five components of persuasion important for defining the concept (Perloff, 2017). First of all, he defines persuasion as a symbolic process, emphasising that this process requires time, involves certain steps, and actively engages the message recipient. Additionally, persuasion involves the use of symbols, i.e., “forms of language in which one entity

represents a concept or idea, communicating rich psychological and cultural meaning” (Perloff, 2017: 22). As an example, he notes that “a rose is not always a rose”, meaning that for some, a rose represents the beauty of blooming, while for others it is a sign of a thorn. In pointing out persuasion as a symbolic process, we can see why it is important to understand persuasion also through the aspect of neuroscientific insight into the motivated reasoning process. Following Perloff’s metaphor, to better understand the effects of persuasion, it is necessary to understand whether the recipient is motivated to see the rose through the perspective of blooming beauty or unpleasant thorns. Further, taking into account the mechanism of motivated reasoning and the emotions accompanying the activation of this mechanism helps us understand why a recipient perceives a thorn as a rose and vice versa. Through neuroscientific insight into the emotional reaction during the rationalisation process caused by the activation of motivated reasoning, the effect of persuasion can also be viewed at the neuron activity level, allowing us to identify the role of emotions regarding whether the recipient, i.e., their brain, “chooses” to react to the “rose” or the “thorn”. If we start from Westen’s conclusion that the attitude of the political message recipient is influenced more by emotions than information (Westen, 2007), we can say that persuasion is not only a symbolic but also an emotional process. If Perloff defines persuasion as the symbolic meaning of the message being transmitted, Westen’s neuroscientific research results add the component of persuasion as an “emotional process”. In other words, the persuasion effect depends not only on how the recipient interprets the meaning of the symbol but also on which emotion that symbol evokes in them.

The second component Perloff points to is that persuasion always includes an attempt to exert influence. When he says “attempt”, Perloff emphasises that for communication to be classified as persuasive, successful persuasion is not a prerequisite, but rather the communicator’s intention to influence. In other words, this component refers to the fact that persuasion does not imply the desired effect, but the desire for an effect. The third component states that “people persuade themselves to change attitudes or behaviour. Communicators provide the arguments.” (Perloff, 2017: 25). Or as Whalen (D. J. Whalen) says:

“You can’t force people to be persuaded - you can only activate their desire or show them the logic behind your ideas. You can’t move a string by pushing it, you have to pull it. People are the same. Their devotion and total commitment to an idea come only when they fully understand and buy in with their total being.” (D. J. Whalen, 1996: 5, as cited in Perloff, 2017: 25).

However, considering the role of emotions based on the results of neuroscientific research, this component of the persuasion definition could be extended with the following conclusion. Firstly, the role of emotions in political decision-making influenced by a persuasive message shows us that it is not enough to “show the logic behind the ideas”, but whether an individual will change or maintain a certain attitude also depends on which emotions the message triggers in them. When Perloff says communicators only provide arguments, he overlooks that the effect of persuasive communication does not depend solely on the logical strength of the arguments, meaning persuasion appeals not only to the rational but also to the affective and volitional components of an attitude. In practice, this means that regardless of the strength and logical foundation of the arguments, due to the activation of the motivated reasoning mechanism and avoidance of negative emotions, an individual will retain or even reinforce their attitude. Neuroscience allows us to observe this process also at the level of neural activity, providing us

with additional information not only for a better understanding of the process but also for more effective management of it.

The fourth component Perloff distinguishes is that persuasion involves the transmission of a message, which can be verbal or nonverbal and transmitted through various communication channels. He notes that the message may be “reasonable or unreasonable, factual or emotional” (Perloff, 2017: 26). However, here it is important to distinguish an emotional message from a message that activates emotions. And here again we find ourselves in the field of motivated reasoning, where emotions are activated in relation to the individual’s motive, and not necessarily to the content of the message. A message with emotional content for a person without a motive to accept its content does not have to evoke any emotions, whereas a message that aligns with their motive or “attacks” that motive, even if it is not primarily emotional in content, can provoke strong emotions. Finally, as the last component of persuasion, Perloff notes that persuasion presupposes free choice. He believes that without the free will of the person towards whom the persuasion is directed, we cannot even speak of persuasion. The relationship between persuasion and free will will be discussed later, as defining this relationship is important not only for defining the concept of persuasion but also for the relationship between this concept and other concepts directly related to the persuasive function of political communication.

The definition of persuasion can also be viewed in the context of one of the mechanisms influencing consciousness and human behaviour. Namely, in social psychology, a division is accepted into four basic mechanisms relating to the influence on consciousness and behaviour, and alongside suggestion, emotional contagion, and imitation, persuasion represents one of those four mechanisms. Atlagić interprets the understanding of persuasion in psychology as “an action on people using logical argumentation” and that “persuasion aims to transform certain information into attitudes, into an individual’s personal conviction, and at the core of this lies the conscious, critical perception by the message recipient, their analysis and evaluation” (Atlagić, 2020: 31). Thus, Atlagić emphasises that, viewed from the perspective of psychology, persuasion is aimed at the intellectual-cognitive sphere of the human psyche, and that in this process the prerequisite for changing attitudes is achieving the individual’s internal agreement with certain conclusions (Atlagić, 2020). However, he also points out that many authors indicate arguments supporting the view that such a definition of persuasion is often unsustainable when viewed from the perspective of communication studies. The arguments of authors who emphasise that logical argumentation requires an audience capable of logical reasoning, then the recipient’s attitude towards the source of the message, and the argument that the effectiveness of persuasion is reduced because opinions and assessments disseminated often do not correspond to the recipient’s existing opinions and assessments, stand out. This last argument directly relates to the mechanism of motivated reasoning.

3.2 Historical Foundations of the Development of Political Persuasion

If we start from the premise that “there is almost no human communication without elements of persuasion” (Slavujević, 2017: 11), that persuasion is one of the basic functions of political communication, and that political communication is essentially as old as politics itself, it

is clear that the foundations of the development of political persuasion are temporally coincident with the foundations of political practice development. From this, it follows that a comprehensive presentation of the history of political persuasion development would imply presenting the entire development of political practice, thought, and communication. Instead, only key points determining the foundations of political persuasion development through the centuries will be highlighted here.

While it cannot be defined as political persuasion *per se*, the roots of persuasion in general can already be found in the Old Testament and, more broadly, in the practice of religious propagation. As examples, Perloff mentions parts of the Old Testament related to Jeremiah's attempts to convince people to establish a personal relationship with God, as well as the activities of John the Baptist, who travelled preaching the coming of Christ (Perloff, 2017). The foundations of political persuasion can be placed in ancient Greece, specifically during the time of the sophists who travelled for money teaching public speaking and the art of political eloquence. The activity of the sophists also represents the historical foundations of professional persuasion practice. When discussing the foundations of persuasion, it is necessary to mention Plato and his critique of the sophists. Plato claimed that "none of those individuals who teach for money and whom they call sophists and consider their rivals teach anything other than what the common people think and express in their gatherings, and that they consider that wisdom" (Plato, 2002: 184). In Plato's attitude towards the sophists, we see that the foundations of persuasion, i.e., professional persuasion, are simultaneously the foundations of the ethical critique of professional persuasive practice. From those roots of political persuasion to today, the practice of persuading has always implied consideration or critique also from the ethical standpoint.

Although literacy in Athens was widespread in the fourth and fifth centuries BCE, "the mechanics of ancient civilisation and its primary expression remained oral," thus, "Greek society relied on oral expression" (Kennedy, 1963: 3). Therefore, it is not surprising that the Greeks discovered the "art of speech", and that art appeared with "the newly established democracy in Syracuse during the second quarter of the fifth century, which generated the need for training in the art of public speaking" (Kennedy, 1963: 5). Although in today's everyday speech rhetoric is often understood as empty talk aimed at flattering masses to achieve personal political interests (i.e., equated with demagoguery and populism), in antiquity "rhetoric — what we now call persuasion — was an exalted component of civilisation, one linked with eloquence, learning, and high moral character" (Perloff, 2017: 52). For Aristotle, rhetoric was "an expertise in producing 'proofs' (pisteis) — understood as 'proper grounds for conviction'" (Dow, 2015:9). Unlike Plato, who criticised the sophists because in their rhetoric training, they focused not on truth but on form, style and speech effects, his student Aristotle laid the foundations for the study of rhetoric, reconciling the sophists' and Plato's perspectives. Perloff considers Aristotle the first theorist of persuasion. He points out that Aristotle developed the first systematic approach to persuasion effects precisely because he developed the foundations of rhetoric theory (which Perloff equates with persuasion) based both on elements of truth, emphasised by Plato, and on persuasive communication as a practical tool, as sophists viewed rhetoric (Perloff, 2017). According to Aristotle, persuasion has three basic elements:

- Ethos (relating to the nature of the communicator)
- Pathos (relating to the emotional state of the audience) and

- Logos (relating to the arguments in the message) (Perloff, 2017).

As one of the founders of the persuasion study in America in the 20th century, Hovland (C. Hovland) in his research on persuasion effects relied precisely on this Aristotelian concept (Hovland, Janis & Kelley, 1953). One of the key research areas Hovland focused on was the impact of source credibility on communication effects (Hovland & Weiss, 1951-1952). And precisely in this connection between Aristotle's observations and Hovland's experimental research, we can see how the development of research methodology and technology contributes to testing classical theses and expanding the field of knowledge in persuasion. In that context, the development of neuroscience places demands on this field that theses developed from ancient Greece until today should be tested and improved in accordance with the development of a new level of experimental research enabled by neuroscientific methods.

Aristotle's key contribution to the development of persuasion study lies in reconciling Plato's and the sophists' views, emphasising the importance of truth but also the ways to convince the audience to make the best decision regarding a particular issue. Aristotle was the first to recognise the importance of the interaction between the three mentioned elements of persuasion, and this separation of persuasion elements forms the basis for studying any persuasive process even today. In this work, research is essentially based on that division in an attempt to use neuroscientific methods to indicate the relationship between Pathos and Logos, i.e., how the emotional state of the audience influences the reception of arguments presented in a persuasive message. In his work *Rhetoric*, Aristotle speaks about three proofs offered through a speech — the first relates to the character of the speaker, the second to putting the listener in certain conditions, and the third to the arguments themselves (Aristotle, 2017). If we place these Aristotelian proofs in the context of neuroscientific research dealt with in this work, as a condition in which the listener finds themselves, we consider their motives and emotional arousal when the third Aristotelian proof (arguments) comes into conflict with that motive. When discussing the mechanism of motivated reasoning and rationalisation of emotional reaction, it is important to note that Aristotle already dealt with the relationship between emotions, facts and beliefs and justifying taking a certain stance (Dow, 2015).

Regarding the foundations of persuasion study, it is necessary to mention that ancient Rome also had a tradition of studying the art of oratory and eloquence. As one of the founders of persuasion study in Rome, Cicero can be singled out, who claimed that the ideal orator “should be schooled in the psychology of emotional appeals and should be capable of controlling facial expressions, as well as physical gestures” (Perloff, 2017:59). Thus, even in Cicero's instructions we can see a precursor not only of the importance of including knowledge from psychology but also from neuroscience. Speaking of the importance of emotions and controlling gestures, Cicero practically gives hypotheses whose testing is paved by the development of psychology and other sciences. In the case of neuroscience, the development of neuroscientific methods allows us to investigate at the level of neural activity what Cicero already recognised as significant — how a stimulus causes an emotional reaction in the message recipient and what the ultimate influence on the effect of that message is.

When speaking about the foundations of persuasion study in the Renaissance period, certainly the most important place is occupied by the thinker Niccolò Machiavelli (N.

Machiavelli), whose work *The Prince* represents the first “manual” of persuasion for rulers (Machiavelli, 2005). The learning path of persuasion practice leads from the sophists through Machiavelli to today’s modern professions in PR, political marketing, media consulting, etc. The development of these professions in the 20th century also blurs the line between the development of political persuasion practice and theory, as well as between persuasion, propaganda, and political marketing, and the development of these fields will be discussed in subsequent chapters. At this point, only the key starting points of the historical development of political persuasion study are indicated. Pointing out these points is significant to better understand contemporary persuasion study, since the challenges set at the foundation are equally current and guiding for today’s study of political persuasion. Although Hovland’s research belongs to the field of effects research, it is mentioned here precisely as an illustration of the way research of individual elements of persuasive communication relates to historical foundations. This also relates to the application of neuroscience, which despite being a young discipline answers questions posed already by Aristotle and tests the field outlined by his theses, as well as aligning the approach with contemporary technological and methodological development.

However, Perloff distinguishes seven characteristics by which today’s persuasion differs from persuasion of previous eras (Perloff, 2017: 19):

- (1) Number of Messages,
- (2) Speed and Brevity,
- (3) Conducted via Institutions and Organisations,
- (4) Subtlety,
- (5) Complexity and Mediation,
- (6) Digitalisation,
- (7) Exposure to a Wealth of New, but also Bias-Confirming, Information.

3.3 Relationship between Persuasion and Political Communication

When discussing the relationship between persuasion and political communication, this relationship can be most briefly described by defining persuasion as one of the three main functions of political communication, as mentioned earlier. However, considering the intertwined nature of these functions, there are arguments based on which persuasion can also be viewed as an element that determines a certain communication to be political. Of course, in that case, we cannot speak about persuasion in general, but only about political persuasion, that is, convincing aimed at achieving a specific political goal or referring to convincing the message recipient to make a certain political decision. Returning to the intertwined nature of the functions of political communication and the observation that political informing most often includes elements of political persuasion, just as political persuasion uses educational or informative content (Slavujević, 2007), we also return to the justified question of whether we can even speak about political communication if it does not have open or covert, consciously or unconsciously used elements of persuasion. Viewing persuasion through the perspective of a function that determines communication as political, we can conditionally say that the other two functions of political communication (political informing and political education and socialisation) are essentially sub-functions of political persuasion, that is, in the service of political persuasion.

In practice, there is almost no example of political informing or political education and socialisation without elements of persuasion or that is not in the service of creating discourse for political persuasion. Such a conclusion raises the question of whether neutral education on political topics or neutral transmission of political information can at all be labelled as political communication. Here, the term “neutral” is used to denote communication that does not contain elements of persuasion. Raising this question is especially justified if we consider the previously presented definitions of political communication, which imply elements of intentionality in the context of the effects of that communication. If we start from the fact that one of the basic elements of the definition of political communication is the conscious or unconscious intention of the communicator that his message produces an effect on the recipient (i.e., persuades him), the relationship between persuasion and political communication can be defined in the context of persuasion as a prerequisite for political communication.

If we take, for example, the field of studying the role of motivated reasoning and emotions in political decision-making, research results show that every piece of political information in the recipient's brain is processed according to his motives and evokes certain emotions accordingly (Westen et al., 2006). Thus, if we start from the fact that the effect of a political message depends both on the motives of the message recipient and the emotions that are triggered in relation to activated motivated reasoning, it follows that every political message influences the change or strengthening of attitudes or behavior of the message recipient. In other words, this means that the characteristic of political communication is precisely the existence of elements of political persuasion in the communication act. In accordance with such conclusions, the study of political communication ultimately boils down to the study of elements of persuasion and the effects of persuasion in that communication. If, however, it is a neutral transmission of information about politics for the purpose of neutral information, education, or socialisation, it can be conditionally said that we are then not in the field of political communication, but rather in history, sociology, civic education, political science, etc. However, at the same time, the content of political communication functioning in the service of persuasion is filled with information or teaching, and precisely in that lies the intertwined connection of the mentioned functions. It is hard to imagine persuasion that would not use certain information or teaching on the basis of which persuasion would be conducted. In that context, it could be said that political persuasion is a prerequisite for political communication, and that the other two functions without elements of political persuasion cannot be considered true functions of political communication.

On the other hand, defining political persuasion as a key function of political communication opens the question of “sub-functions”, that is, the question related to the function of persuasion itself. Therefore, in order to better understand and define the functions of political communication, it is necessary to define the purpose of persuasion during communication. In that case, the function of political communication could be reduced to “winning over others” (Moloney, 2001, as cited in Lilleker, 2006: 10) or “persuading others, and solely concerned with the acquisition of power: whether governmental power or power over the media agenda” (Lilleker, 2006: 11). However, Lilleker emphasizes the need to take into account contextual factors that influence the role a particular political communication message has at a given moment. Besides the function related to gaining support for the purpose of winning over others, Lilleker also highlights the informative function, but points out that “there is a fine line between informing the public or highlighting an issue and attempting to influence public opinion directly” (Lilleker, 2006:

14), indicating that in the first case the public is allowed to make its own decision, while in the second case there is an attempt not to offer a choice.

The function of political communication, thus defined and situated within the contemporary context of mass media, opens up the possibility of yet another interpretation of the function of political communication—one that lies between persuasion and the goal of that persuasion to win and gain support, namely, ‘gaining media attention’ (Lilleker, 2006: 14), or publicity. However, even in the context of such an interpretation, we again face the question of the purpose of gaining media attention, that is, ultimately, we come back to persuasion. In other words, gaining media attention is aimed at increasing the chances of achieving the effects of the political message, i.e., increasing the chances to persuade the audience of what is the intention of the communicator who sends the message. Therefore, gaining media attention in that sense would relate more to the channel of political persuasion than to the function of political communication itself.

3.4 Persuasion and Influence on Attitudes and Behavior

Since political persuasion is directly aimed at the structure of attitude (Slavujević, 2007), that is, at the formation, strengthening, or change of people’s attitudes about a certain political issue (Atlagić, 2011), understanding the persuasive process requires starting from the very definition of the concept of attitude. In English, the term “*attitude*” has multiple meanings and derives from the Latin word *aptus*, which translates as “*fitness*” or “*adaptedness*”. This term “*aptitude*” denotes a subjective or mental state of preparedness for action, while in the field of art it has an independent meaning relating to the posture of the body in painting and sculpture (Allport, 1935). Accordingly, Allport points out that it is possible to speak of both mental and motor attitudes (Allport, 1935).

The etymology of the word itself reveals the organic connection between mental state and action, i.e., between attitude and behavior. When discussing the effects of political marketing or political messages, this relationship between attitude as a mental state or belief of the individual concerning a certain political issue and behavior, i.e., the action that the individual takes, is of key importance. Research into this relationship is directly related to whether the effectiveness of the political message is measured by the change or retention of attitudes and beliefs, or by changes in behavior. In other words, it is important to understand whether the goal of political marketing is to influence an individual’s attitude or to prompt them to take action. If we consider the previously mentioned functions of political communication—whether we talk about informing, educating and socializing, or political persuasion—all three functions in the context of political marketing involve the additional question of what they are directed toward. Ultimately, this concerns whether the individual to whom the political message is addressed votes in a certain way during elections. If all three functions of political communication are successfully applied concerning attitude but not behavior (voting), we cannot speak of effective political marketing. However, to understand why an individual engages in certain behavior, it is equally necessary to consider how and through what pathways the political message influences their attitudinal structure. The essence of persuasion is influence, and “influence is the essence of politics” (Cobb & Kuklinski, 1997: 89).

Allport (G. Allport) in the 1930s, when scientists began researching the development of racial stereotypes, published that the concept of attitude is the most essential concept in modern social psychology (Perloff, 2017). One of the first explicit recognitions of attitudes in experimental psychology is related to a reaction time study conducted by Lang (L. Lange) in 1888. (Allport, 1935). Lang discovered that a subject consciously prepared to press a button immediately upon receiving a signal reacted faster than a subject whose attention was directed at the incoming stimulus, i.e., whose consciousness was not primarily focused on the expected response. Such studies opened the question of the relationship between attitude and consciousness. While the Wuerzburg school held that attitudes are neither sensations, images, nor affections, nor combinations of these states, the followers of Wundt (W. M. Wundt) believed that attitudes could be adequately regarded as feelings, specifically as some kind of mixture between aspiration and excitement (Allport, 1935). However, with the development of psychoanalysis came the discovery that attitudes are largely formed in the unconscious, and Freud (S. Freud) identified attitudes with desires, hatred and love, passion and prejudice, i.e., with the flow of “unconscious life” (Allport, 1935). The history of the attitude concept also includes how sociology treated it—as a representation of culture. Park (R. Park) emphasized four criteria for defining attitude: (1) it must have a definite orientation in the world of objects (or values), and in this respect differ from simple and conditional reflexes, (2) it must not be an altogether automatic and routine type of conduct, but must display tension even when latent, (3) it varies in intensity, sometimes being predominant, sometimes relatively ineffective, and (4) it is rooted in experience, and therefore is not simply a social instinct (Allport, 1935).

The history of studying attitudes is marked by a multitude of varied definitions. Allport defines attitude as “a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations with which it is related” (Allport, 1935). This definition is particularly important in the context of neuroscientific research on attitudes because Allport already in 1935 recognized attitudes as a “neural state,” long before the development of neuroscience. Moreover, defining attitude as a “readiness to respond” points to the recognition of the organic connection between attitude and behavior, which Allport describes as “an attitude characteristically provokes behavior that is acquisitive or avertive, favorable or unfavorable, affirmative or negative toward the object or class of objects with which it is related” (Allport, 1935). Among the many definitions of attitude, some authors define it as “an association between a given object and a given evaluation” (Fazio, 1989: 155), some as “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor” (Eagly & Chaiken, 1993: 1), while others define attitudes as “a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object” (Fishbein & Ajzen, 1975: 6).

When Perloff states that attitude is a psychological construct, a mental and emotional entity characterizing a person, but also a “hypothetical construct,” a concept that cannot be directly observed but can only be inferred from human actions (Perloff, 2017: 86), he essentially speaks about the essence of the relationship between attitude and action (behavior) in the context of the effectiveness of political marketing. Such a concept of attitude raises questions in several dimensions. First, if Perloff says that attitude can be inferred from people’s behavior, he assumes that attitude formation precedes behavior. However, in political behavior, we often see situations where people take certain actions without having a previously formed attitude related to those

actions. This is precisely what Ellul addresses—that effective propaganda is directed at behavior rather than necessarily at changing attitudes or beliefs, the change of which eventually happens later as a consequence of rationalising the previously taken action (Ellul, 1965). In that sense, we cannot say that attitudes can necessarily be inferred from people’s actions. On the other hand, if we consider the part where Perloff defines attitudes as a psychological construct in terms of a mental and emotional entity, we approach Westen’s conclusion that the change of emotions is key to making political decisions. From this, it follows that it is necessary to distinguish the activation of emotion as a reaction to a stimulus (in this case a political message) and attitude formation. This is precisely where neuroscientific research plays a key role because it allows insight into the activation of emotion before it reflects in attitude or behavior. Although Perloff says that attitude can be inferred from behavior, he nevertheless warns that even though we can infer attitude from what a person says or does, attitude is only a mental construct that is not “real” (Perloff, 2017: 86). Viewing attitude exclusively from the behavior perspective he sees as a behaviorist fallacy. Although neuroscience cannot provide all the answers about how attitudes are formed, changed, or maintained, it certainly allows insight into what before the development of neuroscience was only speculation. Take, for example, the mentioned psychoanalytic influence that places the study of attitudes also in the context of the unconscious. We cannot obtain an answer about that unconscious solely through self-report or behavior, but part of the answer can be obtained through analysis of neural activity during the activation of unconscious processes in an individual’s brain.

When we say that political persuasion is aimed at the attitude structure (Slavujević, 2007), it is important to understand what makes up that structure. Slavujević points out that the three elements of the attitude structure are: (1) the rational, cognitive component, (2) the value, i.e., emotional-affective, and (3) the motivational, i.e., volitional or action component (Slavujević, 2007). Such an attitude structure implies that political persuasion is directed at rational thinking, emotions and values, but also at action, i.e., behavior. According to the theory developed by Fishbein (M. Fishbein) and Ajzen (I. Ajzen) in 1975, attitudes have two basic components: cognition and affect, or “head and heart” (Perloff, 2017: 94). According to this theory, decisions in conditions of uncertainty involve two interdependent considerations- “the likelihood that a contemplated action will result in certain outcomes, and the desirability or valence of these outcomes” (Ajzen & Fishbein, 2008: 2222). This theory directly relates to the interaction between attitude and behavior, and “the primary determinant of behavior is actually the person’s intention—the intentions that guide the behavior of the actor” (Jović, 2020:14). Thus, subjective values of behavioral outcomes are related to the perceived likelihood that the behavior will result in a specific outcome (Ajzen & Fishbein, 2008), and attitude is a combination of what we believe or expect from a particular object and how we feel about those expectations (Perloff, 2017). This understanding of attitude is presented in the Fishbein and Ajzen theory in the form of a mathematical formula as follows:

$$A = \sum b(i) \times e(i)$$

$b(i)$ = each belief and $e(i)$ = each evaluation (Perloff 2017, 95)

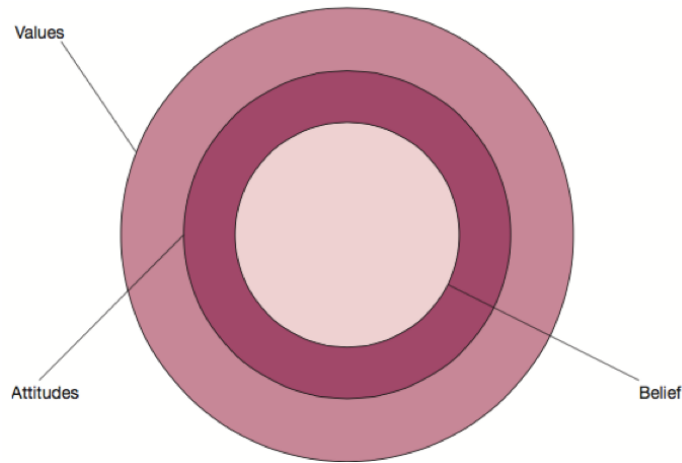


Figure 4 Expectancy - Value Approach to Attitudes (Perloff, 2017: 95)

Fishbein and Ajzen also developed the so-called Reasoned Action Model, which addresses the connection between attitudes and behaviour — this model was first proposed in 1975 and later further developed (Fishbein & Ajzen, 2010). This model provides a roadmap from thought to the moment when thought influences an individual’s action or behaviour. The Theory of Reasoned Action comprises five core components: (1) attitude towards the behaviour (an individual’s judgement that performing the action is good or bad), (2) perceived norm, (3) perceived behavioural control (the degree to which individuals believe they are capable of performing a particular behaviour), (4) behavioural intention (the intent or plan to perform a particular behaviour), and (5) behaviour itself (the action in a particular situation) (Perloff, 2017: 165). Attitude towards the behaviour has two subcomponents: behavioural beliefs (beliefs about the consequences of the behaviour) and outcome evaluation (assessment of the consequences). The model also accounts for perceived norms related to whether a behaviour is socially acceptable and recommended, which can be injunctive norms (pertaining to perceptions of what others think one should do) and descriptive norms (pertaining to perceptions of what others have done, are doing, or are likely to do in the future) (Fishbein & Ajzen, 2010).

For experimental research on the relationship between political attitudes and behaviour, the component of behavioural intention is especially important, since in laboratory settings it is difficult to directly observe behaviour. In such cases, behavioural intention functions as a predictor of behaviour, which cannot be directly observed. Besides self-reported behavioural intention, it can also be quite accurately predicted from “attitude towards behaviour, perceived norms, and perceived behavioural control” (Perloff, 2017: 171).

Although this theory provides a framework for predicting behaviour based on attitudes, behaviours may sometimes differ from attitudes. While the model has been successful in many studies, it has limitations. One of these is the thin line between attitude and behavioural intention. In other words, behavioural intention can in some cases reflect more the attitude at the moment of reporting intention than the future behaviour. Nonetheless, despite its limitations, behavioural

intention represents an adequate substitute — if not for direct measures — then at least for predicting behaviour in experimental conditions where behaviour cannot be directly observed.

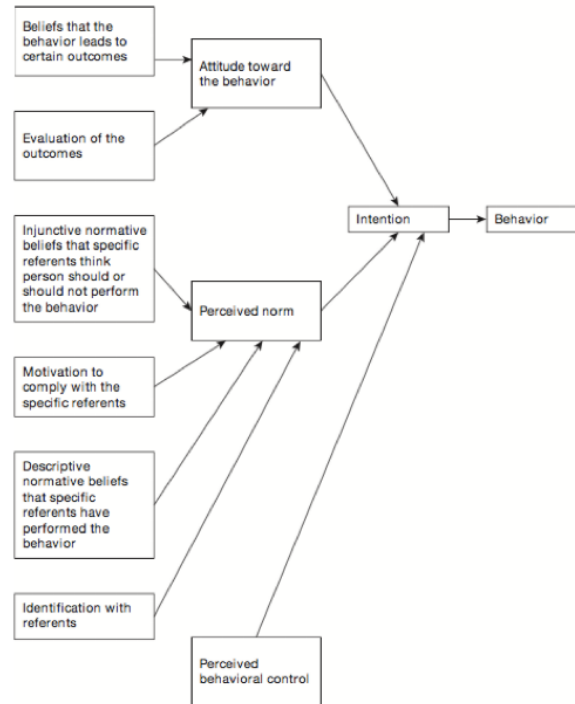


Figure 5 Reasoned Action Model (Perloff, 2017: 166)

The second significant model of the attitude-behaviour relationship is the Attitude-to-Behaviour Process Model. Although it cannot be denied that numerous studies suggest attitudes do not always influence behaviour, sometimes attitudes do indeed predict behaviour (Fazio & Roskos-Ewoldsen, 1994). This model highlights factors that determine whether the link between attitudes and behaviour will be weak or strong; these factors are conceptualised as variables that moderate the attitude-behaviour relationship. The factors are (1) the quality of the behaviour, (2) the quality of the person, (3) the quality of the situation, and (4) the quality of the attitude. Therefore, not every behaviour by every person in every situation will reflect every attitude. However, by analysing these factors, it is possible to determine when and to what extent this will be the case. It is also important to note that some authors consider the focus on the attitude-behaviour relationship unjustified as a primary concern, since persuasion is directed at the “cognitive, affective, and behavioural stances toward other persons, rather than their views about some actions or policy” (Miller & Burgoon, 1978: 34). Fazio points out that under certain circumstances people behave according to the model proposed by Fishbein and Ajzen, but this only applies to situations where people can deliberate on the consequences of behaviour in a certain way and can choose between *pro* and *contra* arguments. However, in situations where “people lack the motivation or opportunity to deliberate in this fashion, they act more spontaneously”, and their attitude can “guide behaviour if people automatically call up attitudes from memory” (Perloff, 2017: 176). According to this model, attitude activation leads to selective perception, which then

results in an immediate perception of the attitude, followed by the definition of events and behaviour, while norms influence the definition of the situation, which is directly linked to the interpretation of events.

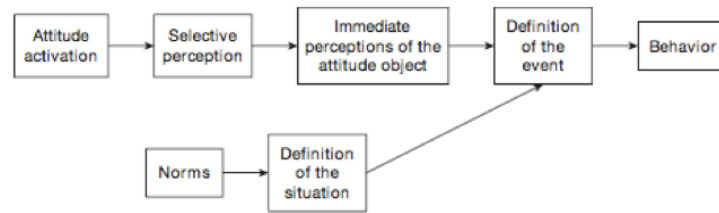


Figure 6 Attitude-To-Behaviour Model (Fazio & Roskos, 1994)

A second perspective on the structure of attitudes, especially political ones, can be described as a symbolic approach to attitudes, focusing on emotions and symbols; this approach is characterised by emotional reactions, strong sentiments, and prejudices (Perloff, 2017). In the context of researching the mobilising role of political persuasion through the perspective of emotions' role during the activation of the motivated reasoning mechanism, elements from both perspectives are significant. The first-mentioned perspective is important because it focuses on the relationship between attitudes and behaviour. Regarding the focus on intention, examining the role of motivated reasoning reveals the background of that intention, that is, what the individual's motive is and how that motive activates itself behind the intention. Since the second perspective centrally positions emotions, when we consider the role of emotions in activating motivated reasoning, we conclude that these two perspectives, in the context of political marketing effects, are not opposing but rather represent a combination of key elements for understanding the process of achieving effects through political persuasion. Perloff's third perspective on the structure of attitudes relates to the role of ideology and focuses on strong and developed political beliefs.

Since political persuasion is directed at all elements of the attitude structure, all three mentioned perspectives simultaneously contain guidelines for effective political persuasion, that is, how a political message should be delivered with the aim of influencing people's attitudes. Looking at all three perspectives, despite their differences in what they consider the dominant determinant of the attitude structure, it can be conditionally said that behind each focus lies the individual's motive — the motive behind intention, the motive that triggers the emotional reaction, or the motive behind political beliefs. Accordingly, this opens up space for a new perspective that, connecting elements of all three mentioned, would place the individual's motive and the emotions accompanying that motive in the focus.

Starting from the fact that such a perspective cannot be universally applied to the influence on all political attitudes, Westen's research indicates that it is at least necessary to introduce a new dimension to the study of attitudes, in the formation, change, or retention of which the activation of motivated reasoning can be detected. In that case, knowledge of the individual's motive allows a much better understanding and background of their attitude. This especially applies to cases where we can follow the process of political decision-making through "incorrect reasoning," because in those cases, only the examination of the motive and the way it activates motivated

reasoning provides answers about the formation, retention, or change of a given attitude that is created, changed, or maintained in that process.

This relates to situations where there is a case of incorrect reasoning, that is, reasoning when an individual refuses to allow information contained in a political message to influence their attitude. In such a case, it is not enough to know only the probability and outcome assessment mechanism, nor is it enough to know only the emotions or political beliefs, but it is necessary to understand how the motive influences the process of activating emotions that inhibit logical reasoning. Accordingly, a fourth perspective on the view of attitude structure, in such cases, would place the motive in the focus, which would then be examined in relation to the emotions activated during the process of motivated reasoning. The word motive in this case is not used in the sense in which Slavujević (2007) sees the motivational component as part of the attitude structure, but rather as a motive that influences all three mentioned components — it clouds the process of rational thinking, activates emotions in terms of avoiding negative emotions, and accordingly drives action.

3.5 Key Elements of the Persuasive Message

One of the key questions posed in the field of political persuasion is how a political message, intended to be persuasive (a persuasive message), is constructed and what its content is. If we translate Hovland's definition of communication as a process in which an individual (communicator) transmits a stimulus (usually a verbal symbol) to modify the behaviour of another individual (recipient) (Hovland, 1948) into the realm of political persuasion as one of the functions of political communication, the stimulus is understood as the political message aimed at influencing the recipient's political decision. Referring to the message as a stimulus is terminologically aligned with the study of political persuasion processes in the field of neuroscience. Moreover, Hovland's communication definition, which states that the goal of communication is focused on modifying behaviour rather than attitudes, raises the question of whether this definition is incomplete or whether Hovland, by this formulation, suggests what the ultimate effect of communication is. Thus, this question concerns whether the influence on attitudes is merely a step towards influencing behaviour or if the influence on attitudes is a result of the rationalisation of behaviour (Ellul, 1965). However, regardless of whether we view the message as a stimulus aimed at modifying behaviour or attitudes, it is necessary first to understand what this stimulus entails in the communication process within the field of political persuasion—that is, what a persuasive political message entails. Perloff identifies the following key factors of a persuasive message (Perloff, 2017: 333):

Message Structure:

- (1) Conclusion drawing
- (2) Messages sidedness
- (3) Order of Presentation

Message Content:

- (1) Evidence

- (2) Narrative

Framing:

- (1) Frames that define the problem and recommend a solution

Language:

- (1) Speed of speech
- (2) Powerless versus powerful language
- (3) Intense language
- (4) Political language

Emotional Appeal:

- (1) Fear-arousing messages
- (2) Guilt appeals

Since a dedicated chapter will address emotions, here only four categories related to key factors of the persuasive message will be presented - the way the persuasive message is organised, its content, framing, and language. Although there is no universally applicable rule on what a persuasive message should look like, it is possible to point out its key elements based on understanding the very process of political persuasion. It is important to note that the study of message characteristics in communication research in the field of persuasion differs from research in other disciplines, such as psychology (Shen & Bigsby, 2013). Breaking down a persuasive message into its basic elements allows an understanding of how all these elements together make a message persuasive.

The goal of a persuasive message is to lead the recipient to a certain conclusion, and the structure of the message outlines the path to reaching the conclusion that the communicator intends to produce. Here, the key question is whether the communicator in the persuasive message wants to present arguments so that the recipient comes to the conclusion independently or whether the conclusion is explicitly stated within the message itself. Thus, arguments in a persuasive message can be arranged to lead to the conclusion implicitly or explicitly (Perloff, 2017). Although there are arguments supporting both explicit and implicit conclusion drawing, depending on the overall circumstances in which the message is sent, some authors consider that explicitly stating the conclusion reduces the chance of the recipient misunderstanding what the communicator intends to convey, as well as increases the persuasiveness of the message itself (O'Keefe, 1997; Cruz, 1998). The argument for implicit conclusion drawing relates to situations where it is more effective for the recipient to perceive the conclusion as their own rather than imposed on them. Which approach is more effective depends on who the communicator is, to whom the message is sent, through what channel, in which context, and what the content of the message is. However, what is indisputable is that leading the recipient to a conclusion is certainly a characteristic of a persuasive message.

Additionally, the order in which arguments are presented in a persuasive message is also important, and this order certainly represents one of the elements for analysing the structure of the persuasive message. The order primarily differs in whether the persuasive argument is presented first or after opposing arguments (Perloff, 2017). For example, if there are two opposing

arguments, one of which is the one the communicator wants to persuade the recipient to accept, it can be placed first or second in the message. There is no universal rule regarding which order is more effective, but this order must be taken into account in the analysis of any given persuasive message. Finally, a persuasive message may present only one side or may offer the recipient the opposing side as well. Although it could be concluded that presenting opposing arguments risks weakening the argument the communicator wants to persuade the recipient to accept, some authors claim the opposite—that messages presenting both sides influence attitudes more than one-sided messages, as they allow the refutation of opposing arguments (O’Keefe, 1999; Allen, 1998). This is especially important in the context of studying the influence of motivated reasoning on the effects of political marketing, since the argument opposite to the recipient’s attitude activates the mechanism by which the recipient, despite exposure to opposing information, retains their initial attitude—that is, avoids negative emotions due to the feeling that their attitude is under attack. It is justified to question whether we can even talk about incorrect conclusions caused by the activation of motivated reasoning if that mechanism is not triggered by exposure to arguments opposing the recipient’s attitude.

The content of the message, in the context of key characteristics of a persuasive message, refers to evidence and narrative. One definition of evidence in a persuasive message suggests that it should be presented through facts contained in a statement by someone who is not the direct communicator of the message, that it should be an object not created by the communicator, and that it represents opinions of other individuals consistent with what the communicator asserts (McCroskey, 1969). There are four types of such evidence (Shen & Bigsby, 2013): (1) Statistical, (2) Anecdotal, (3) Testimonials, and (4) Analogical, with the last two considered the strongest types of evidence. Narrative refers to the manner in which the content of the message is presented, that is, how the communicator “tells a story” aimed at producing a persuasive effect. Narrative involves a symbolic representation of events that includes elements not typical for persuasive communication, such as characters, plot, and dramatic elements that are more characteristic of fiction than explicit advocacy (Perloff, 2017).

Framing refers to the process of “selecting and highlighting some facets of events or issues, and making connections among them so as to promote a particular interpretation, evaluation, and/or solution” (Entman, 2004: 5). Another definition describes framing as a “persuasive strategy either to highlight benefits and rewards from compliance with the message advocacy (i.e., the gain frame) or to highlight costs and punishments from noncompliance (i.e., the loss frame) to highlight benefits or rewards aligned with what the message advocates or to emphasize losses and punishments associated with noncompliance” (Shen & Bigsby, 2013: 28). Framing may result from the communicator’s intent, but it can also be accidental or intuitive. However, it “always provides a direct connection between the message, the receiving brain, and the action that follows” (Castells, 2013: 158). “The mechanisms of information processing that link the content and format of the message to the frames (patterns of neural networks) existing in the mind are activated by messages generated in the realm of communication” (Castells, 2013: 155), and these frames can activate mental patterns which may have dramatic effects on decision-making processes (Perloff, 2017). Clearly, framing attempts to directly influence the way the brain processes information, and findings from neuroscience about how the brain functions provide new insights not only into the effects of framing but also into how to amplify those effects. Thus, framing as a feature of persuasive messages could be described as exerting influence on the

recipient's neural network and the manner in which they psychologically process a given political message. Framing can therefore significantly contribute to achieving the effect that the recipient not only sees the problem as the communicator intends but also accepts the solution offered by the communicator.

Language as a feature of a persuasive message essentially relates to the style of the message (Shen & Bigsby, 2013). This characteristic indicates that the persuasiveness of the message depends on how it is delivered — the speed at which the communicator speaks while presenting the message, whether they use strong or weak language, the intensity of the message delivery, and whether it is directly political. Furthermore, the style of the message also involves whether and how the communicator uses metaphors, which stylistic figures are generally used, and with what intensity they address the audience (more on this in Perloff, 2017 and Dillard & Shen, 2013).

3.6 The Process of Persuasive Communication

The first comprehensive experiment on the effects of persuasion was conducted by Hovland and his colleagues at Yale University, resulting in the establishment of the so-called Yale attitude change model (Hovland, Janis & Kelley, 1953). This model was developed to examine how attitudes change, specifically how elements of persuasive communication jointly influence attitude change. When discussing the process of persuasive communication, this model presents not only the basic elements of that communication but also the processes that critically affect its outcome. Thus, to understand the process of persuasive communication itself, we start from its basic elements according to the mentioned Yale model: (1) Source of the message, (2) Content of the message, (3) Channel of communication, and (4) Audience. In other words, persuasive communication involves a specific source (communicator) sending a message of certain content through a particular channel to a particular audience. The effect of persuasive communication is influenced not only by the characteristics of all four elements but also by the relationship between these elements. For example, the credibility of the message source directly affects the impact that the message will have (Hovland & Weiss, 1951-1952) - specifically, to what extent it will influence the attitudes of the recipients (audience). Hovland placed special focus on learning and motivation in his research, and the results showed that for an audience to be persuaded by a message, it must direct attention to that message, understand it, learn it, retain it, and accept it (see figure below). Since the Yale model is primarily applied in the study of communication effects, this model will be discussed further in a dedicated section dealing with effects. At this point, the model is presented only as a basis for identifying the key elements of persuasive communication and highlighting that the effects of communication depend on the characteristics and mutual relationships of these elements.

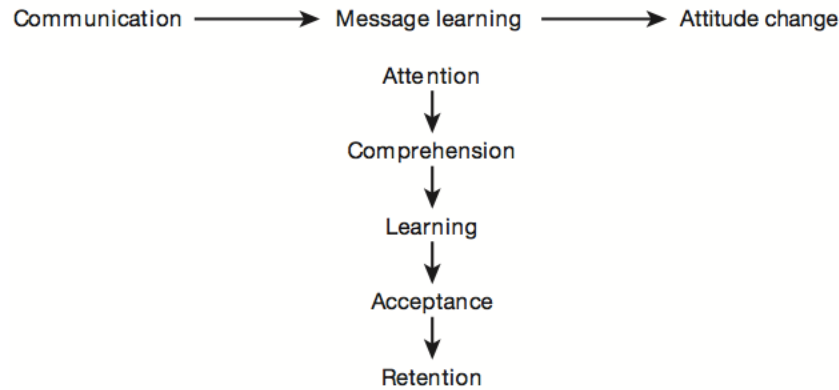


Figure 7 Yale Model of Persuasive Communication (Perloff, 2017: 223)

Essentially different views of the persuasive communication process are embodied in various theories of effects, which will be addressed in a dedicated chapter. The reason for this lies precisely in the fact that without the effect of persuasion, we cannot speak of any process as persuasive. Here, only approaches representative in the context of identifying the key elements of the persuasive communication process are mentioned; these form the foundation of all further research on effects, that is, the basis of other effect theories regardless of whether they follow or critique these basic models. Thus, before different approaches to the process of persuasive communication are presented through various theories of communication effects, this section will focus solely on isolating the basic elements. When we say that without an identified intention to produce effects, we cannot speak of persuasive communication, it seems that Hovland's division into basic elements (source, message, channel, audience) is incomplete in this sense. However, the analysis of audience reaction is precisely the field of research on the effects of persuasive communication, so the entire Hovland model is essentially based on the effects of persuasion. In essence, the analysis of the persuasive communication process brings us back to Lasswell's questions - who says what, to whom, through which channel, and with what effect (Lasswell, 1927). An approach that views the effects of persuasion through the perspective of the cognitive response expands this field by focusing on the mental state of the subject, thus providing more precise guidelines not only for the development of theories on effects but also for the role of neuroscience in further research and testing of these theories.

3.7 Persuasion and Free Will

Can we even speak of persuasion if the message recipient does not have the freedom to accept or reject what the communicator is persuading them to believe? Many authors identify the freedom of choice, or the existence of free will, as one of the key characteristics of persuasion (Perloff, 2017; O'Keefe, 1990; Gass & Seiter, 2014, et al.), considering that without free will, communication cannot be regarded as persuasive. According to these authors, communication that occurs under coercion cannot be classified as persuasion; coercion is a factor that disqualifies communication from being persuasive. However, assuming that persuasion cannot exist without

free will—that is, under coercive conditions—it is first necessary to understand what free will and coercion entail.

Perloff states that there are more than 200 definitions of freedom, and it is difficult to determine when coercion ends and freedom begins (Perloff, 2017). He suggests that a person is free when they have the possibility to critically evaluate what the communicator persuades them to believe or to behave differently from what they are persuaded to do (Perloff, 2017). We can speak of persuasion only when the person being persuaded has the free will to make a different choice. However, there are cases where the boundary between freedom and coercion is difficult to discern—these are situations where a person seemingly has free choice but is actually under conditions of implicit coercion. The English word for coercion, derived from the Latin *arcere*, means *to enclose*, implying influence on behaviour or behaviour change by means of physical force. The Latin verb *persuadere* derives from *per*, meaning strongly, and *suadere*, meaning to urge or incline (Powers, 2007: 126). Both terms refer to a form of influence but differ in the type of influence exerted. In persuasion, the communicator influences the recipient to think or behave in a certain way through argumentation, while in coercion, the communicator issues a command that implies a consequence if not obeyed. Thus, influence through persuasion occurs when a person freely chooses to act in a certain way because the communicator convinced them with arguments, whereas coercion occurs when a person complies with certain behaviour to avoid consequences. In other words, persuasion involves guiding someone to a particular conclusion, while coercion involves avoiding the realization of a threat.

In modern philosophical literature, coercion is most commonly defined by the following components: (1) The communicator's intent, (2) The readiness to harm the message recipient, (3) A message that includes an implicit or explicit threat of harm, (4) The outcome in which the message recipient complies, (5) Available choice- the recipient would have behaved differently if they had chosen to do so, and (6) Limited choice- the recipient would have chosen differently if the threat had not been made (Powers, 2007). Of all these components, most definitions of persuasion share only the component of the communicator's intent. Coercion can be defined as a technique for forcing people to behave in a way desired by the coercer, which generally implies behaviour contrary to the preferences of the people (Perloff, 2017). Thus, what connects coercion and persuasion is certainly the communicator's intention for the message recipient to think or behave in accordance with what the communicator conveys. However, they differ in the manner in which that intent is implemented, and it is precisely at this point that free will delineates the boundary between coercion and persuasion. Yet, the question arises: what about cases where coercion is disguised under the guise of persuasion? For example, if you have the freedom to support or not support a particular political option, but that support is directly linked to the preservation of your job — does the representative of that political option, when presenting reasons for support, exercise coercion or persuasion? It is, therefore, important to note that there exists a field of borderline cases of persuasion (Gass & Seiter, 2014: 32). These borderline areas do not only concern coercion, but also interpersonal communication without intent, non-symbolic communication, or communication without effect (see Figure 8).

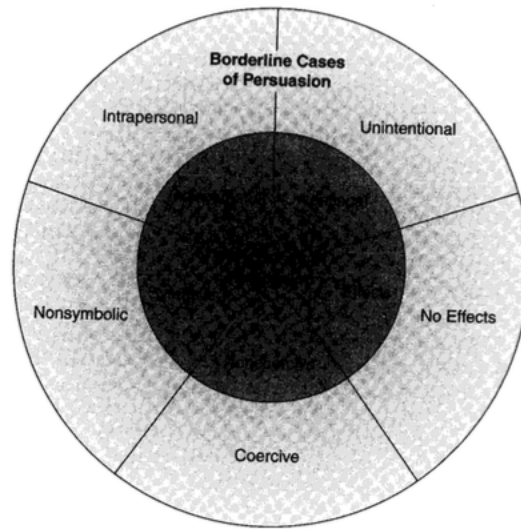


Figure 8 Borderline cases of persuasion (Gass & Seiter, 2014: 32)

Due to the evident scope of borderline cases, it would be erroneous to regard coercion and persuasion as necessarily opposing poles, but rather as concepts that overlap and lie “on a continuum of social influence” (Perloff, 2017: 32). In attempts to nevertheless differentiate coercion from persuasion, some authors propose emphasising the role of perception (Smith, 1982). From this viewpoint, persuasion differs from coercion based on whether people perceive they have freedom of choice or not. Returning to the example concerning the relationship between support for a political option and job security, according to this approach, we are in the realm of persuasion if the individual is unaware that job security depends on that support, and in the realm of coercion if they are aware. According to this approach, it is irrelevant whether coercion is direct, i.e., whether the representative of that political option explicitly states that those who do not support it will lose their jobs, but rather whether the individual perceives such a threat. In this sense, the distinction between coercion and persuasion also depends on the personal characteristics of the message recipient, i.e., how they create a particular perception in accordance with their traits, as well as how informed they are about the potential threat. For example, a person with higher self-confidence will believe that despite an explicit or implicit threat, they have freedom of choice, whereas a person with lower self-confidence or a higher degree of existential insecurity will perceive the same situation as one without choice. Similarly, a person more informed about such practices of the political option will consider themselves to have less freedom of choice than one who lacks sufficient information. Under conditions of free will, persuasion ultimately boils down to the individual persuading themselves, with the communicator merely providing arguments intended to influence this process (Perloff, 2017). Furthermore, there are even authors who regard political persuasion itself as coercion, arguing that communication produced for the purpose of persuasion “cannot base legitimacy purely on coercion” (Lilleker, 2006: 103).

This brings us to another factor that determines whether communication is persuasive, indirectly related to the relationship between persuasion and free will. Besides free will, one of the factors that determines whether we are in the realm of persuasion is consciousness (Perloff, 2017; Gass & Seiter, 2014). If a person “is unaware that an influence attempt is taking place, she or he

can't consciously resist it" (Gass & Seiter, 2014: 28). On the other hand, consciousness can also affect whether it is free will or coercion. In the example mentioned, if an individual is unaware that withdrawing support from that political option could lead to job loss, then it cannot be said that the decision is made under coercion. Thus, consciousness is a prerequisite for free choice (Gass & Seiter, 2014), which distinguishes persuasion from coercion. However, this raises questions about unconscious processes in the recipient's brain. Is it considered coercion or persuasion if the communicator, for example, presents arguments in a way that activates the motivated reasoning mechanism in the recipient, of which they are unaware? Can it be considered that the individual had free choice if the decision was made under the influence of emotions activated by a particular message? In other words, does consciousness imply only the awareness of one communication participant about the attempt of another to persuade them and awareness of the existence of different choices and consequences? Can an individual who fulfils these conditions but is simultaneously influenced by unconscious mechanisms affecting their decision be considered conscious? Is a decision made unconsciously under the influence of emotions also a form of coercion?

Results from neuroscientific research (Westen, 2007) provide several justifications for considering new borderline cases concerning the activation of unconscious mechanisms in the recipient's brain, which occur as responses to stimuli at the neuronal activity level. For instance, knowing today that activating emotions in the message recipient can, via motivated reasoning, lead to faulty conclusions (Westen, 2007), the question arises as to whether it is justified to open a discussion on a new kind of coercion - that created by one's own brain. On the other hand, returning to previously mentioned factors determining coercion, this type of "psychological and neuronal coercion" certainly does not involve a threat or readiness to inflict harm. However, the fact that certain messages influence the brain to produce faulty reasoning leaves room to question whether such messages fully satisfy the prerequisites of persuasion - consciousness and free choice.

Before moving to the next chapter dedicated to propaganda, it is necessary to consider the relationship between propaganda and persuasion, which follows directly from the relationship between persuasion and free will. When Perloff calls propaganda and manipulation the "bad guys" of persuasion, he simultaneously highlights their connection while also emphasising the boundary between them. This boundary is less pronounced between persuasion and manipulation, since he defines manipulation as "a persuasion technique that occurs when a communicator hides his or her true persuasive goals, hoping to mislead the recipient by delivering an overt message that disguises its true intent" (Perloff, 2017: 43). Thus, although not all persuasive communication can be labelled manipulative, he places manipulation under the umbrella of persuasion, identifying it as a persuasive technique. However, the distinction between persuasion and propaganda is drawn on a much broader basis, justified by the following characteristics that differentiate them (Perloff, 2017):

(1) Propaganda refers to instances where there is total or near-total control over the transmission of information, and dissent is forbidden or violently discouraged. Conversely, persuasion implies the free flow of information in which people have access to perspectives that challenge those in power or the ruling groups.

(2) Propaganda is deceptive and represents only one side of the facts — the one the propagandist wants people to hear.

(3) Propaganda typically involves media, either mass or interactive, that is accessible to millions worldwide (such as YouTube).

(4) The terms propaganda and persuasion carry different connotations — propaganda has a negative connotation and is associated with malicious or harmful forces, whereas persuasion is considered a positive force that can lead to beneficial outcomes.

Essentially, the differing stances towards propaganda and political marketing are fundamentally based on attitudes towards the relationship between persuasion and free will. Thus, authors who differentiate between *manipulative* and *coercive* persuasion distinguish totalitarian propaganda, which they link to coercive persuasion, from political marketing, which they associate with manipulative persuasion (Scammell, 1995). Just like Perloff, Scammell (M. Scammell) emphasises the negative connotation that propaganda has compared to political marketing, precisely because propaganda is more associated with elements of coercion, whereas political marketing is linked to manipulation - propaganda tries to lead public opinion, and marketing tries to follow it (Scammell, 1995). However, there are alternative views questioning whether the distinction between propaganda and persuasion on these grounds merely reduces propaganda to totalitarian propaganda and political persuasion to political marketing (Atlagić, 2011). Atlagić poses the question - “Is this not an attempt to free the activity of political persuasion terminologically from the burden of manipulation and deceit traditionally associated with political propaganda?” (Atlagić, 2011: 493).

Regardless of the basis or strength of different authors’ boundaries between propaganda and persuasion, it is indisputable that when discussing political propaganda, we are certainly also discussing political persuasion. If this boundary is determined by the relationship between persuasion and free will, how it is drawn depends on what we consider free will, what coercion is, and how we place this boundary in the context of the aforementioned borderline cases of persuasion. Atlagić suggests that answers to these questions should be sought by identifying the fundamental methodological principles and techniques that are guiding and employed by political propaganda and comparing them with the principles and techniques of persuasive activities that, in contemporary Western-type societies, fall under “political persuasion”, “political marketing”, etc. (Atlagić, 2011: 493). In the context of influence on the individual measured at the level of neuronal activity, the same principles apply. The difference lies only in the fact that neuroscientific research broadens the scope of analysing the assessment of consciousness and, consequently, the presence of free will as factors that determine whether we are on the terrain of persuasion or coercion. This implies that the already active discussion on the boundaries between propaganda and persuasion should include questions raised by neuroscience, especially neuroscientific research on the influence of emotions on political decision-making. Certainly, the organic connection between political persuasion and political propaganda is reflected in the fact that regardless of the circumstances and the connotations the term propaganda carries in a given historical moment, political persuasion certainly underlies political propaganda. In other words, not every political persuasion is political propaganda, but every political propaganda is political persuasion. The sustainability of this thesis, as already mentioned, depends on whether we reduce

propaganda only to totalitarian propaganda and how narrowly we define the concept of coercion. In this work, the relationship between political persuasion and political propaganda is conceived so that political propaganda is viewed as organised political persuasion, whereby all previously mentioned questions are then placed in the context of how it is organised.

4. Political Propaganda as Organised Political Persuasion

4.1 Historical Foundations of Different Interpretations of the Concept of Propaganda

The term propaganda originates from the Latin word *propagare* (meaning to spread, disseminate, reproduce, multiply), and was first used by Pope Gregory XII in 1584 in the bull *Ascedente Domino*, which established the Jesuit order and assigned them the task of propagating and spreading the faith (Slavujević, 2007: 12). From 1622, the term propaganda became associated with the name of the organisation established by the Roman Catholic Church to combat the rise of Protestantism (Lilleker, 2006). Before that, Clement VIII gathered three cardinals to discuss methods and means of spreading Catholicism, and in 1622 Pope Gregory XV formalised this institution with the bull *Inscrutabili Divinae*, naming it *Sacra Congregatio de propaganda fide*, and under his successor Urban VIII the institution solidified its role in fighting Protestantism (Slavujević, 2007: 12). This organisation propagated fear that “Protestants would burn in the eternal fires of hell for rejecting Catholicism,” and the connection between these historical foundations of propaganda within the church and contemporary political propaganda is reflected in the fact that “the language used to put forward the case for the War on Terror by the US President George W. Bush and UK Prime Minister Tony Blair is seen to parallel such activities” (Lilleker, 2006: 162). By 1677, the first institution for educating propagandists, *Collegium de Propaganda Fide*, was formed, while the term political propaganda appeared in 1793 with the establishment of the Propaganda Association in Alsace aimed at spreading the ideas of the French Revolution (Slavujević, 2007: 12).

From its historical origins, where propaganda under the auspices of the church had connotations of the struggle between good and evil, the term acquired a permanently negative connotation in the 20th century in the context of political propaganda by totalitarian regimes, associating it with evil. What is common to the foundations of propaganda within the Church and its connotation from the 20th century to today is that the term remains embedded in a dichotomy of good and evil—the first missions named propaganda within the church acted as a fight against evil, while the political systems of the 20th century based on totalitarian propaganda bequeathed this term the connotation of evil, although those who assigned this connotation had contributed earlier. This understanding of propaganda has led to different conceptions of the term, which will be discussed later—up to the point where it seems necessary to find a new word for what propaganda essentially represents by definition, due to the ominous burden political history has placed on the term. The battle of one propaganda against another in political practice resulted in those fighting Nazi propaganda (essentially propaganda itself) rejecting the term to unequivocally distinguish “good and bad propaganda.”

Political propaganda reached its peak in the 20th century. In the same century, as mentioned, the term also acquired its negative connotation. For this reason, the focus of the historical overview of political propaganda here will be on the 20th century. Without understanding the path this term has traversed, especially in the 20th century, it is difficult to discuss the often complicated relationship between political persuasion, political propaganda, and political marketing. The complexity of that relationship is often conditioned precisely by the imperative to replace the original meaning of propaganda, due to the negative connotation assigned through the practices of totalitarian regimes during the 20th century, with another term. A particular difficulty lies in the fact that an adequate terminological replacement has not yet been found, since propaganda cannot truly be equated either with political persuasion as a broader concept, or with political marketing as a narrower one. This section will point out only the historical moments in the development of propaganda that significantly influenced different understandings of the term and most clearly illustrate not only the origin of this diversity but also the fact that the use of the term from its historical sources to today has remained within the context of the good and evil axis, regardless of which end of the axis it is placed on in a given case.

Before the end of the First World War, in 1917, US President Woodrow Wilson established the Committee on Public Information (CPI), headed by journalist George Creel, which is why this institution was also known as the *Creel Committee*. The Committee was created to influence public opinion in order to secure support for the United States' entry into the First World War. This Committee “evangelised for a uniform national opinion keyed to Wilson’s new view of the war as Right versus Wrong conducted to spread democracy worldwide” (Sproule, 1997: 10). The CPI used all available information channels to influence public opinion, and US citizens were exposed at every step in their daily lives to messages sent by this Committee. Fifty million pamphlets alone were distributed (Sproule, 1997), and the commission’s campaign represents one of the largest and most intense attempts to rapidly ensure that a set of ideas reached all members of a nation (Lippmann, 1922). Prior to the war in the US, the word propaganda was associated with the dissemination of opinions and ideas aligned with certain interests, but the emergence of “German propaganda” changed the meaning people attributed to the word. Creel emphasised that the activities of his committee were not propaganda (although they fit the definition of propaganda) because “that word, in German hands, had come to be associated with deceit and corruption” (Sproule, 1997: 17). After the First World War, a movement developed in the US defining propaganda as “always covert and institutionally promoted threat to intelligent public opinion”, and such interpretation placed propaganda in the context of danger to American democracy (Sproule, 1997: 21). This definition of propaganda, according to the leading members of this movement — Lippmann (W. Lippmann), Irwin (W. Irwin), Dewey (J. Dewey), and Beard (C. Beard) — was the result of their analysis of the CPI’s activities (Atlagić, 2009).

This period in the US at the end of the First World War and immediately after the war outlined the path of the transformation of the meaning of the word propaganda in several respects more than the appearance of open totalitarian propaganda in the Second World War under the regimes of Hitler, Stalin, and Mussolini’s regimes. First, during this period, propaganda was returned to the framework of good and evil, as it had been centuries earlier under that designation. Second, the struggle of one propaganda against another under different names laid for the first time the foundations for the various understandings of this term on which the analysis of propaganda still rests today. Third, accordingly, the existence of “good” and “bad” propaganda

was institutionalised, which naturally created the need for “good propaganda” to receive another name (which at least terminologically opened the door for the emergence of political marketing). Fourth, through the aim of the Creel Commission to have the fight against propaganda serve the spread of American democracy worldwide, propaganda techniques were clearly placed for the first time in the service of what Nye (J. S. Nye) calls *soft power* (2004), which characterised persuasive political communication during the Cold War period. Political persuasion organised through propaganda after this period acquired another more or less tacit characteristic — organised persuasion implied convincing recipients that one persuasion is good and the other bad. Furthermore, the struggle between different propagandas did not only imply political victory in practice but also victory on the terminological battlefield. Likewise, victory and defeat were measured not only by real political consequences but also by the banner under which each side conducted political persuasion in that struggle.

These events had their counterpart on European soil, where Britain was involved in CPI activities throughout. The War Propaganda Bureau, better known as *Wellington House*, operated in strict secrecy under the supervision of the Foreign Office until 1917, when propaganda functions were centralised with the establishment of the Department of Information (DOI), and in 1918, the Ministry of Information (Atlagić, 2009: 14). These British institutions focused on spreading anti-German sentiment and helped create a favourable climate in the US for the formation of the Creel Commission. Although it later turned out that British propaganda towards the US included reports not based on facts (such as Bryce’s report on the sinking of the *Lusitania*), Britain successfully spread anti-German sentiment in the US through propaganda and set the stage for the formation of the Creel Commission. Returning to the aforementioned sources of different understandings of propaganda, this case presents another indicative event — one propaganda (British) being used to initiate another propaganda (American) in the fight against a third propaganda (German). Such encounters between different forms of organised political persuasion, pursued with different goals, in different ways, and with different consequences, contributed to the inflation of diverse understandings of the concept of political propaganda.

Progressive critics of propaganda in the 1930s in the US founded the *Institute for Propaganda Analysis* (IPA), which focused on exposing propaganda by educating citizens for democracy, enabling them “to understand who controls and influences the channels through which propaganda ‘flows’ - the press, radio, film, church, school, unions, business organisations, and political parties” (Atlagić, 2009: 17). This institute was founded by progressive critics of the CPI, and interestingly, Creel himself described the CPI’s campaign as both educational and informative. Thus, in the case of progressive critics of propaganda, as well as the CPI fighting one propaganda with another, we see that one function of political communication - political persuasion - presents itself as both of the other two functions - information and education. This tells us about the interconnectedness of political communication functions, and that information and education in that function essentially rest on elements of political persuasion.

The rise and practice, but above all the consequences and victims, of totalitarian regimes before and during the Second World War definitively shifted the division between “good” and “bad” propaganda towards renouncing the term propaganda altogether, as a term permanently burdened with a negative connotation regardless of its prefix. After the devastating consequences of Nazi totalitarian propaganda, it was no longer sufficient to say that some propaganda was

“good,” because there was an imperative to exclude the very word propaganda. The struggle of “good and evil” as the basis of propaganda interpretation from the time of fighting against Protestantism was transformed into the interpretation of propaganda as a phenomenon exclusively on the side of evil, thus placing under question and active debate the space of organised political persuasion defined as propaganda, which lies between unorganised forms of political persuasion and political marketing. Hitler (A. Hitler), who laid the foundations of totalitarian propaganda even before its practical application and whom some authors consider “the theorist on propaganda” (O’Shaughnessy, 1990: 24), argued that the task of propaganda is to recruit supporters, and the organisation’s task is to gain members, defining supporters as those who declare agreement with the movement’s goals, while members are those who fight for it (Hitler, 2004: 371).

From such an idea of the foundation of totalitarian propaganda, even before its implementation, he stated that propaganda is based on differentiating the influence on attitudes and behaviour, considering the goal of propaganda to be securing consensus. However, in practice, totalitarian propaganda based on principles set by Goebbels (J. Goebbels) (more in Atlagić, 2009 and Doob, 1950) was essentially measured by its effects on behaviour, and at the cost of coercion, it lost elements of persuasion in the sense some authors link to the existence of free will (Perloff, 2017; Gass & Seiter, 2014; O’Keefe, 2016; Scammell, 1995 and others). Under the circumstances in which the principles of totalitarian propaganda were applied in Germany, almost the entire nation reacted according to principles described by Le Bon (G. Le Bon) in *The Crowd: A Study of the Popular Mind*, who pointed out that “crowds, weak in reasoning capacity, are on the contrary very capable of action” (Le Bon, 2018: 11). In circumstances where thinking was inhibited under totalitarian propaganda, its effect was directed towards action (behaviour), and the mobilising function of political persuasion became dominant. Precisely the fact that it was possible to observe this process in its extreme during the time of totalitarian propaganda transformed the way effects were studied, as will be discussed later. The era of totalitarian propaganda enabled insights into the reach of propaganda and people’s reactions that no experiment could provide.

Skipping almost a whole century of studying political persuasion effects and propaganda, and looking through the prism of contemporary neuroscientific research, one can notice that these studies are also part of the continuum of studying and practising propaganda from its inception. Thus, the period of Nazi totalitarian propaganda not only influenced different interpretations of the term but also the context of neuroscientific research. That context lies primarily in designating neuroscience as “a new normative foundation for politics after the traumas of the 20th century” (Meloni in Valk & Slaby, 2012: 35), indicating that the legitimisation of neuroscientific research in the field of politics required overcoming the traumas of the 20th century. Due to the abuse of biologisation of politics, on which Nazi totalitarian propaganda (racism, eugenics, Holocaust, etc.) was based, the study of politics and political communication effects mainly focused on cultural and psychological aspects, while the biological bases of behaviour or behaviour studied through brain function analysis were largely neglected (more in Meloni in Valk & Slaby, 2012). However, unlike the term propaganda which still carries the burden of historical event connotations, although the biologisation of political research can be placed in the context of the same historical events, neuroscientific research today does not face that challenge. Certainly, there are ethical debates about the application of neuroscience in politics, but these are not connected to the traumas of the 20th century discussed here, but rather concern whether and to what extent neuroscientific knowledge may be abused for greater control over people, beyond their consent and awareness of

such control. However, unlike the abuse of biologisation of politics under the Nazi regime, which was aimed at creating divisions among people, neuroscience “appears to promote a message of universal brotherhood, as we all share the same neurobiological structures of which all cultural differences are just superficial variants” (Meloni in Valk & Slaby, 2012: 36).

4.2 Different Understandings and Definitions of Political Propaganda

The previous chapter outlined how the practical application of political propaganda throughout history influenced various understandings of the concept, which in turn led to a plethora of definitions of propaganda. The history of practice primarily affected whether the focus in defining political propaganda lies in the value-laden nature of the practice or in the elements that place propaganda as a concept “between” political persuasion and political marketing. Building upon some of the key historical events influencing different definitions of propaganda presented earlier, this section will present only a selection of those definitions. The selection of definitions is not motivated by a desire to show the comprehensiveness of different understandings of the term but to highlight those relevant to this work in terms of different conceptions of the relationship between propaganda and political persuasion, with special emphasis on the understanding of political propaganda in the context of its influence on attitudes and behaviour.

Slavujević defines political propaganda as “a planned and organised activity aimed at shaping, presenting, and spreading political content, gaining people’s support, and securing their backing for certain political content and its bearers” (Slavujević, 2007: 12). He further specifies and explains the meaning of all elements of this definition:

- **A planned activity** is understood as “organised and systematic action by a larger number of institutions, groups, and individuals based on a pre-set goal and chosen means” (Slavujević, 2007: 12).
- **Political content** as defined by Slavujević is “ideas, attitudes, beliefs, qualifications of phenomena, events, and people; everything that enables the spread of positive or negative feelings towards them and motivates people to (not) participate in political activities; everything that carries an explicit or implicit political message” (Slavujević, 2007: 13). The way political content is defined shows how significant feelings towards the content of the political message are for the effect of the propaganda process. Moreover, the effect of political content is also considered in the context of motivating people to participate or not in certain activities, i.e., in the context of influencing behaviour. Here, we clearly see the interplay between feelings, motives, and behaviour, which is crucial for examining the mobilising role of political persuasion. If political content is defined as a factor motivating an individual to behave in a certain way, then it follows that motivated reasoning regarding political content is the key mechanism of processing information from the political message, i.e., the reaction to it. Feelings towards the content are certainly directly connected to the feelings activated during the triggering of motivated reasoning, so the boundary between feelings directly towards the content and feelings regarding how that content affects the individual’s motive is very thin. Insights into neural activity during exposure to political content allow us, by detecting emotional arousal and tracking which

brain regions are activated, to better understand the individual's reaction to political content as a stimulus. This is especially significant in the context of what Slavujević terms "the implicit political message" in his definition of political content.

- **Gaining people's support** is defined by Slavujević as "forming or spreading existing positive or negative rational and/or emotional-affective attitudes of people towards certain political content and its bearers, as well as changing a positive attitude to a negative one or vice versa," i.e., "gaining people's support presupposes securing their backing" (Slavujević, 2007: 13). In this element, we find ourselves essentially in the domain of influencing attitudes, where such influence may be directed towards forming new attitudes, strengthening existing ones, or changing them. It is important to note that in this definition, rational and emotional components are not viewed separately but rather equally allow for the simultaneous activation of both components of attitude.
- **Securing support** is defined as "encouraging certain engagement of people (action or inaction) in favour of or against bearers of certain political content," i.e., "it is about directing people's behaviour, an attempt to establish control over human engagement in accordance with the intentions of a given political subject" (Slavujević, 2007: 13). Here, propaganda is defined not only as directed at attitudes but also at individual behaviour. Returning to the history of political propaganda practice, it is interesting that the creators of Nazi totalitarian propaganda defined propaganda primarily in terms of influencing people's attitudes, while they linked influence on behaviour to membership in a political organisation. However, political propaganda acquired a negative connotation primarily because of how totalitarian propaganda influenced people's behaviour. Thus, totalitarian propaganda confirmed the importance of influence on behaviour, and the fact that its creators linked influence on behaviour to organisational membership is not contradictory but rather further emphasises propaganda as organised political persuasion. Influence on behaviour as an element connected to political organisational membership is practically an illustration of the fact that political propaganda is aimed at behaviour. However, that orientation is not necessarily related to membership in a particular organisation but to the organised nature of political persuasion. Some definitions of propaganda entirely exclude influence on behaviour. Examples include defining propaganda as "any organised action aimed at spreading a belief, religion, doctrine, etc." (Larousse classique, 1975, cited in Slavujević, 2007) or as "a method of forming an attitude towards a person, organisation, or idea by influencing opinion" (The Columbia Viking Desk Encyclopedia, Columbia University, cited in Slavujević, 2007). However, most authors, like Slavujević, stress that propaganda is aimed at both attitudes and behaviour, defining it as an attempt to influence behaviour, not only opinion (Domanach, 1959), as an activity directed not only at securing acceptance of a certain idea or support but also at engagement in a certain action (Driencourt, 1950). Some authors do not deny propaganda's influence on behaviour but see it as indirect, through creating predispositions for certain behaviour by deliberate and planned action on changing and controlling attitudes (Šiber, 1992, 6).
- Lastly, the final element of the definition of propaganda - **the bearers of political content** - is defined by Slavujević as "political parties, state organs, other political organisations and groups, party and state officials, and other individuals who articulate different political interests, coordinate them, and engage in their realisation" (Slavujević, 2007: 13). In the context of defining propaganda, bearers are not singled out only in the sense in which Hovland emphasises the importance of the source of a message for the effects of persuasive

communication, but primarily to indicate that it involves the organised sending and spreading of messages. Here we also see a key difference between political persuasion and political propaganda as a narrower concept, which implies only those forms of political persuasion that are organised. Thus, regarding the bearers of political content, the organised nature of political propaganda is not tied to the organisation of recipients (their membership in a political organisation) but to the organisation of communicators sending messages who represent a certain political organisation and the political interests they represent on behalf of that organisation. However, when Ellul defines propaganda as “a set of methods used by an organised group to coerce by psychological manipulation a united and organised mass of individuals to actively or passively participate in its action” (Ellul, 1962: 74), he also implies the organised nature of recipients as an element of propaganda.

Slavujić categorised the controversies associated with the concept of political propaganda into several groups, noting that “the main controversies regarding the definition of the concept arise from the understanding of a number of characteristics of political propaganda” (Slavujić, 2008: 403). The first viewpoint causing controversies concerns equating political propaganda with manipulation, deception, fraud, and lies. The second relates to the stance that political propaganda is exclusively tied to non-democratic societies, while similar persuasive activities in democratic societies are labelled differently. The third concerns reducing political propaganda to influence on the subconscious. This stance is closely connected with the use of neuroscience in the study of propaganda because neuroscientific methods enable insight into neural responses during appeals to the subconscious.

However, such a reduction of propaganda to subconscious influence completely ignores the field of so-called rational propaganda and relates only to certain propaganda techniques. This interpretation also ignores that subconscious influence is often, and almost always, only part of a more complex cognitive process. In other words, a person can have a subconscious reaction to certain elements of a political message they are directly exposed to, not only to stimuli they are not consciously aware of. This is also the case with activating the mechanism of motivated reasoning — the individual consciously processes a certain message, although the relation of that message to their motive can activate certain emotions at the unconscious level. But in a similar manner, involving both conscious and unconscious mechanisms, as well as activation of different attitude components, we could designate the effects of all political persuasive messages. However, that is not an influence on the subconscious but a “fundamental orientation of propaganda towards valuing reality and stimulating emotions” (Slavujić, 2008: 407). This aligns with authors who define propaganda communication as created to influence attitudes and behaviour, often using “symbolism and rhetoric and appeals to the emotional and irrational aspects of our sensibility” (Lilleker, 2006: 162).

The fourth viewpoint causing controversies regarding the concept of political propaganda relates to the incorrect association of political propaganda exclusively with modern societies and the existence of mass media. The fifth misconception causing controversies is equating political propaganda with paid advertising. The last viewpoint concerns the mistaken suppression of the concept of political propaganda by the broader concept of political communication and the narrower concept of political marketing. Although some authors believe that every form of direct communication is created to influence the audience (O’Shaughnessy, 2004), it is important to

understand which characteristics of persuasive communication can be designated as propaganda. Therefore, presenting these controversies is not only intended to identify viewpoints that lead to incorrect definitions of political propaganda but also clearly points out that it is first necessary to underline what political propaganda is not in order to arrive at what it is.

Regarding the negative connotation and controversies triggered by the term political propaganda, it is necessary to consider how this term was defined by Bernays (E.L. Bernays). During the aforementioned progressive movement in the US aimed at criticising propaganda, he stood up in defence of propaganda as an activity, being one of the most prominent propagandists in the US at the time. Bernays defines modern propaganda as “a consistent, enduring effort to create or shape events to influence the relations of the public to an enterprise, idea or group” (Bernays, 1928: 80). Bernays believed that everyone in a democratic society should have the opportunity to persuade people of the justification of an idea and influence public opinion (Bernays, 1928). His view of propaganda “displaces the propagandist beyond the notions of ‘good’ and ‘evil’ and situates the ethics of mass communication within the framework of professional rules” (Atlagić, 2009: 19). Bernays also introduced an approach he called the “engineering approach” (Bernays, 1947: 114), considering “manufacturing consent” to be the essence of the democratic process, freedom to persuade, and suggestion. He explained his stance that propaganda is not a term that should be associated only with anti-democratic societies but rather represents a necessity of democracy by stating that “any person or organisation depends ultimately on public approval, and is therefore faced with the problem of engineering the public’s consent to a program or goal” (Bernays 1947: 114). Thus, Bernays attempted to value-neutrally redefine the term propaganda, considering the value-laden connotation to depend solely on the characteristics and goals of those implementing propaganda, rather than propaganda being inherently “good” or “bad.” He believed that in circumstances where “the public today demands information and expects also to be accepted as judge and jury in matters that have a wide public import” (Bernays, 1934: 79), it is legitimate and in line with democratic values to have the possibility to persuade that public of one’s ideas.

Although political propaganda is a narrower concept than political persuasion, as it includes only those persuasive activities that are organised, “the content of persuasive political activity in the domain of politics almost entirely exhausts itself in the concept of political propaganda” (Slavujević, 2007: 13). Atlagić also points out that political persuasion can be spontaneous or organised, and “organised political persuasion is political propaganda” (Atlagić, 2011: 482). Based on analyses of different understandings of propaganda, Atlagić concludes that “when we speak of public relations, advertising, informational operations, publicity, etc., in the political sphere, we are always speaking of modern forms of political propaganda” (Atlagić, 2009: 32), and he includes the concept of “public diplomacy” within the framework of political propaganda. Thus, some authors define propaganda as a type of soft power, i.e., the exercise of ideological influence through subtler forms such as international aid, diplomacy, sports, entertainment, academic exchanges, and the like (Haviland et al., 2015). Comparing the key characteristics and elements of political persuasion and political propaganda, we see that these two forms of influence on attitudes and behaviour differ essentially only in the element related to organisation. All other debates about the relationship between political persuasion and political propaganda fundamentally rest only on differing attitudes towards the value-laden connotation that the concept of political propaganda has acquired through the history of propaganda practice.

However, it is important to note that these differences relate to historical events in which political propaganda was applied, but essentially not to its characteristics as defined in theory.

4.3 Functions and Types of Political Propaganda

The functions of political propaganda fundamentally differ from the functions of the broader concept of political communication in that propaganda places all functions of political communication in the service of organised political persuasion. This means that propaganda certainly encompasses elements of informing, educating, and socializing, but it does so by systematically directing all these elements towards influencing the attitudes and behaviour of its audience. Presenting the functions of propaganda is also essential for understanding its effects because, to analyse the effects, one must first comprehend what propaganda is directed at. Three key functions of propaganda can be identified: (1) the Interpretative function, (2) the function of selecting promotional content, and (3) the Mobilizing function.

- **The interpretative function** of political propaganda is emphasized in traditional definitions of the term, focusing on the dissemination of beliefs and ideas and the creation of certain opinions. The interpretative function refers to "finding and offering convincing presentations of certain political content and their bearers" (Slavujević, 2007: 14). In this function, political propaganda generally implies the promotion of an already existing political platform, created without a premeditated propaganda dimension. Thus, in this function, political propaganda represents a separate activity from policy-making itself and is not directly connected to political content and political actions. Slavujević notes that political propaganda in this function often produces counter-effects and that, in better cases, it starts from political content as given, but even then propaganda that arrives *post festum* is reduced to promotion and decoration (Slavujević, 2007: 14).

- **The function of selecting promotional content** implies "a form deeply rooted in content, inseparable from a particular policy as its content" (Slavujević, 2007: 14), unlike the interpretative function where political propaganda is a form separate from policy as content. In both of these functions, politics and political propaganda exist in a relation of form and content, differing precisely by how this relation is established. Political propaganda in this function is also referred to as political-propaganda activity, "which emphasizes the interpenetration of political and propaganda acts" (Slavujević, 2007: 14). While the interpretative function merely promotes an almost politically finished content, in this function the content itself is selected based on its potential to effectively influence people's attitudes and behaviours. Distinguishing these two functions is crucial for analyzing political persuasion effects — whether the content is created and selected to exert influence or created independently of political persuasion intentions. Thus, we distinguish "political-propaganda content" from "political content that is propagated."

- **The mobilization function** primarily concerns behavioural influence and is present in some traditional definitions of political propaganda. This is a key function in the context of examining the mobilizing role of political persuasion, placing us once again in the domain of the "encounter" between political propaganda and political persuasion as a broader concept. The focus on mobilization characterizes the modern understanding of propaganda, according to which propaganda is primarily aimed at action (Driencourt, 1950) — the goal of modern propaganda is

not to influence attitudes, but to provoke action (Ellul, 1965). This function contains a transformation of the traditional view of the propaganda process, where message dissemination is directed at forming or changing attitudes that result in behavior change, to a modern perspective where message dissemination is directed at changing behavior from which influence on attitudes may or may not follow. In this conception, “the propaganda message directly provokes corresponding audience behavior, and attitude and belief change occurs after the action and represents its rationalization” (Slavujević, 2007: 15). The rationalization process mentioned by Slavujević (2007) and Ellul (1965) links motivated reasoning and the mobilizing role of political persuasion. Rationalization results from the activation of the motivated reasoning mechanism, where the individual’s motive determines the direction and dynamics of rationalization following the action. Accordingly, Slavujević defines the ultimate goal of political propaganda as “indirectly or directly guiding individuals to participate in political activities of a particular political subject in a manner and to an extent determined by the political subject itself, or the propagandists working for it” (Slavujević, 2007: 15). The mobilizing function of political propaganda or political persuasion will be analyzed later in detail through aspects of the connection between this function and the activation of motivated reasoning mechanisms, as well as the emotions accompanying that process.

Regarding types of political propaganda, there are too many classifications, proportional to the number of criteria various authors use, making it impossible to present all of them here. Instead of a comprehensive overview, only the basic divisions that best reflect the nature of political propaganda as organized political persuasion will be highlighted. According to Slavujević (2007) one fundamental division is between diffuse propaganda, also called “sociological,” “pre-propaganda,” or “sub-propaganda,” and direct propaganda. Diffuse propaganda uses “a wide range of various non-political contents in a non-political form but with political intent: to achieve a general positive attitude towards basic societal characteristics, institutions, etc., and thereby towards significant political subjects” (Slavujević, 2007: 16). Unlike diffuse propaganda, direct propaganda is characterized by clearly expressed political messages and “aims to strengthen or change a certain political attitude or belief of the audience, mobilize people for political action, etc.” (Slavujević, 2007: 16).

This division aligns with Ellul’s distinction between sociological and political propaganda (Ellul, 1965). What Slavujević calls diffuse propaganda corresponds to Ellul’s sociological propaganda, which he defines as “penetration of an ideology by means of its sociological context” (Ellul, 1965: 63). Sociological or diffuse propaganda is based on creating a general climate and atmosphere that influences imperceptibly, without overt propaganda presence, addressing customs “through unconscious habits,” creating new habits and representing a “sort of persuasion from within” (Ellul, 1965: 64). Diffuse propaganda differs from direct political propaganda in that it never explicitly presents political goals, but aims at creating “general attitudes of people towards the nature of social relations, fundamental institutions, values, etc., determining the general spiritual climate” (Slavujević, 2007: 16) and usually refers to unnoticed influence on people’s attitudes concerning “big themes” in society. These “big themes” may range from overtly ideological attitudes to attitudes toward historical figures or even sports achievements. Diffuse propaganda does not contain direct and explicit political messaging nor conscious and deliberate propaganda action but actually creates the climate for direct political propaganda. The moment direct political propaganda begins is within a previously created atmosphere. That atmosphere

created by diffuse propaganda greatly influences the success, form, and content of direct propaganda. Thus, diffuse and direct propaganda are not opposites but rather complementary phases of the same process, in a mutually dependent relationship. An example of diffuse propaganda is the promotion of the *American way of life* and America as *the promised land* in the early second half of the 20th century (Slavujević, 2007: 16), and it can be said that diffuse propaganda is suitable for spreading what Nye calls “soft power” (Nye, 2004). Concerning direct political propaganda, depending on the nature of goals, it can be strategic or tactical (Ellul, 1965: 62). Strategic propaganda relates to creating the general line of political action, encompassing long-term political goals, core, and consistent propaganda content, implemented through a series of campaigns (Slavujević, 2007; Ellul, 1965). Tactical political propaganda is directed at achieving specific political goals in a short timeframe and results within the framework set by strategic propaganda (Slavujević, 2007; Ellul, 1965).

In literature on political propaganda, a common classification is into so-called “white”, “black” and “grey” propaganda (Atlagić, 2009: 47). Although this “colour classification” implies a value connotation, it actually refers to the degree of openness of the propagandists’ intent, where “white” propaganda explicitly reveals the goals, intentions, sources, and bearers of propaganda messages, while “black” or covert propaganda refers to cases where “sources are secret, message bearers are anonymous or false, and real intentions are hidden by highlighting fabricated goals” (Slavujević, 2007: 18). In “grey” propaganda, the facts presented are true but “presented in a way that suits only certain groups’ interests, and some authors consider this to correspond to contemporary propaganda practice” (Atlagić, 2009: 47). In practice, propagandists often combine all three types of propaganda. Covert propaganda is also called demagogic propaganda, and in the “extreme form,” black propaganda combined with agitation propaganda represents so-called subversive propaganda (Slavujević, 2007: 18).

According to the content’s connotation criterion, propaganda can be divided into positive and negative forms (Slavujević, 2007; Atlagić, 2009). Positive propaganda is characterized by “an affirmative attitude toward the object to which it relates, dominated by messages with positive content,” while negative propaganda is characterized by “a critical, negating, disqualifying attitude toward the object and dominated by messages with negative content” (Slavujević, 2007: 17). In examining the effects of propaganda messages on recipients, it is interesting to note that this division may mostly activate motivated reasoning, as it involves disqualification of the object that one side is motivated to defend. If negative propaganda is associated with the motive to defend the object by its supporters, it is logical that this type of propaganda more often leads to attitude reinforcement rather than change among the opposing side. More on this will be discussed in the section on motivated reasoning and the influence of emotions on political decision-making. At this point, this overview serves only to indicate that presenting types of propaganda is significant for better understanding and analysing its effects.

In this context, a particularly significant division is based on the component of the attitudinal structure predominantly targeted by a given propaganda activity. By this criterion, Slavujević divides propaganda into rational and irrational. Rational propaganda targets the cognitive component of an attitude and appeals to reason and the individual’s experience. Since this type of propaganda uses facts and logical argumentation, it is often equated with informing (Slavujević, 2007). Here we see how thin the line between political communication functions is,

especially when considered within the context of organised political persuasion. Irrational propaganda targets the emotional-affective component of attitude and aims to activate and ignite emotions and passions; this type of propaganda also targets subconscious impulses (Slavujević, 2007). Neuroscientific research into political decision-making processes (Westen, 2007) shows that subconscious mechanisms and emotional activation also occur under the influence of what is here classified as rational propaganda. Furthermore, “political propaganda achieves its best effects by acting on the emotional-affective plane of the human psyche, and this effect is increasingly, especially in contemporary propaganda, supported by facts” (Atlagić, 2009: 47). However, “purely irrational propaganda hardly exists” (Atlagić, 2009: 47), just as there is no rational propaganda that does not activate the emotional-affective component of attitude and subconscious mechanisms. Neuroscience allows us to track signs of subconscious mechanism activation of the emotional-affective component of attitude even in situations where the message recipient is exposed to logical argumentation and facts, so in a sense, the development and application of neuroscience in this field, if not erasing, then at least shifts the boundary between rational and irrational propaganda in the study of effects. However, in terms of form, this division certainly holds, as the differences between propaganda targeting the rational and emotional-affective components are obvious and indisputable.

According to occasion, Slavujević distinguishes preventive and prophylactic propaganda. The former prepares public opinion for some upcoming political decision or act, while the latter reacts to negative reactions to decisions and moves or to the moves of opponents (Slavujević, 2007).

According to the relationship between political leaders and their audiences, Lasswell (H. Lasswell) distinguishes participatory propaganda, which encourages group unity and personal engagement, as well as the participation of individuals in certain actions, and role-distribution propaganda, which refers to situations where clear divisions of roles between the leader and audience exist, and where the audience is expected to passively accept (Slavujević, 2007).

By the criterion of attitude towards the system, Ellul distinguishes between integrative and agitational propaganda. Ellul notes that agitational propaganda is the most visible and widespread and attracts the most attention. This is propaganda aimed at the destruction of authority or the established order and usually carries the mark of opposition (Ellul, 1965). Slavujević describes agitational propaganda as propaganda that “conceals an explosive, revolutionary, systemically destructive movement addressed to the simplest and strongest feelings” and notes that this division roughly corresponds to the division into defensive and offensive propaganda (Slavujević, 2007: 20). Integrative propaganda is aimed at preserving established institutions and relationships.

According to the object of propaganda, it is divided into leadership propaganda (creating a cult of personality), propaganda for recruiting and organising masses, and propaganda of ideals (new views on ways of life) (Ostojić, 1940: 65).

Depending on whether it is directed at the population of its own country or at the populations of other countries, propaganda is divided into domestic and foreign, and depending on the conditions in which it is conducted, into peacetime and wartime propaganda. Related to

wartime propaganda are types of propaganda designated as psychological warfare and psychological or information operations (Atlagić, 2009: 48).

According to the means used in propaganda, Slavujević notes a common division into verbal propaganda (using means transmitting verbal statements such as radio, press, or interpersonal communication), image propaganda (messages transmitted through visual representations such as film, photography, drawing, etc.), and action propaganda (the effects of which are manifested in events, parades, etc.) (Slavujević, 2007: 22).

Only some of the divisions according to different criteria are mentioned here, but even from this overview, it is clear how many aspects of political propaganda exist and how the dominance of a certain aspect influences the type of political propaganda. The complexity of political propaganda is especially reflected in the fact that one propaganda can simultaneously belong to several of the listed types. In some cases, such as the division into rational and irrational propaganda, this can also refer to subtypes within the same criterion. Although not all divisions directly relate to the effects of political propaganda, each presented criterion ultimately affects its effects, so each can be an important element in analysing effects. In studying effects, it is therefore crucial to clearly understand what kind of propaganda is in question, in order to consider all the formal and content features implied by that specific type. This equally applies to examining the mobilizing role of political propaganda as organised political persuasion. In this sense, results of neuroscientific studies of political decision-making processes can be properly applied to studying the mobilising role only if analysed also in the context of the type of political persuasion to which the message recipient is exposed.

4.4 External and Internal Characteristics of Propaganda according to Ellul

In the mid-20th century, Ellul put forward the thesis that modern propaganda can truly function only within the context of a modern scientific system (Ellul, 1965). Although propaganda, from its beginnings under the auspices of the Catholic Church until today, has retained its essence reflected in exerting influence on attitudes and behaviour in accordance with the interests of the propagandist, the manner in which it has been conducted and studied has changed in line with the development of certain sciences and their methods. At the time when Ellul presented this thesis, this particularly referred to the then-development of psychology and sociology. Insights from other sciences resulted in a different understanding of the propaganda process itself. Although propaganda can be seen more as a technique rather than a science, it represents “an expression of these branches of science” on which it is based (Ellul, 1965: 3). In this sense, the sciences whose knowledge is used in studying and practising propaganda not only give propaganda scientific elements and characteristics but also cause propaganda in every other sense to “share the fate” of those sciences. This particularly relates to how it “shares in their successes, and bears witness to their failures” (Ellul, 1965: 4).

When speaking about the transformation of propaganda in the context of the development of other sciences, a parallel could be drawn with medicine and pharmacy — although people before the development of modern medicine and pharmacy could recognise certain diseases and apply

certain therapies based on accumulated experience, the scientific and technological development of these sciences enabled much more precise diagnostics and more effective therapies. This also changed the understanding of certain diseases. Diseases once fatal today can today be treated simply with antibiotics. On the other hand, modern medicine has enabled the diagnosis of new previously unknown diseases, and we witness the emergence of new illnesses in new circumstances. The principle is the same with propaganda. Propaganda was applied and studied based on generating experiential practice, but the development especially of psychology and sociology enabled a transformation in study and application that equally related to both form and content. Without applying knowledge from psychology and sociology, propaganda would certainly exist, as it did for centuries before the development of these sciences, but would remain at the “primitive stages of propaganda that existed in the time of Pericles or Augustus” (Ellul, 1965: 4). This equally applies to the change in context with the development of neuroscience. Ignoring the possibility that today, by applying neuroscientific methods, we can directly observe neural activity in the brain of a subject exposed to a political message as a stimulus would halt the development of propaganda studies in those aspects that were under constraints of lesser or greater speculation. In circumstances where neuroscience knowledge is widely applied in nearly all parts of social reality, the effectiveness of propaganda also depends on adapting to that context.

When discussing the relationship between science and propaganda, Ellul emphasizes four positions (Ellul, 1965), each of which can be placed in the context of today’s neuroscience development. First, that modern propaganda is based on the scientific analysis of psychology and sociology. In the context of 21st-century neuroscience development, in accordance with the principle Ellul states, the possibility opens up for modern propaganda to also be based on the scientific analysis offered by this science. Second, Ellul claims that propaganda is scientific in the sense that it tends to establish a set of rules — rigorous, precise, and tested — and that in this regard, the propagandist is less and less free to follow their own impulses. Returning to the previously mentioned potentials of neuroscientific methods in testing what has remained speculative, the contribution of neuroscience development to the “scientific nature of propaganda” as Ellul describes it is obvious. Third, modern propaganda implies an exact analysis of both the environment and the individual who is the subject of propaganda. This means that the choice of approach is based on clear calculation, not arbitrariness, and that propaganda action involves prior scientific analysis. Neuroscientific methods enable information about the neural response of an individual to a certain stimulus, which undoubtedly contributes uniquely to the analysis of the individual upon which the selection of propaganda approach is based. Lastly, the scientific character of modern propaganda implies increasing attempts to control its use, measure results, and define effects. Here neuroscience provides unique answers that contribute to the “scientific nature of propaganda” according to this criterion - insights from neuroscience provide guidance for more efficient control of the subject’s reaction, and insight into the neural activity of the individual certainly contributes to more exact measurement of the results, i.e., the effects of propaganda.

However, to understand how the development of sciences whose knowledge is applied in the field of propaganda influences the transformation of propaganda itself, it is necessary to point out its basic characteristics, which Ellul divides into (1) external and (2) internal (Ellul, 1965).

4.4.1. External Characteristics of Propaganda

(1) The first external characteristic Ellul mentions concerns the relation of propaganda in the context of influencing masses and individuals. He argues that propaganda directed at the individual is inseparable from propaganda aimed at the masses. According to him, the individual is not the primary interest of the propagandist unless they are part of a mass. This means propaganda can be directed at an individual only insofar as this orientation can lead to effects on the masses or provide insights on how to achieve effects on the masses. In the context of neuroscience applications, it is hard to imagine a neuroscientific method applied simultaneously to entire masses — for example, it is impossible to measure electrical brain signals of all participants in a mass at once. However, a representative sample of individuals subjected to neuroscientific methods can provide data that clarify human behaviour in general under the influence of certain messages. Thus, deeper knowledge about a sufficient number of individuals can offer information on the political behaviour of larger groups of people, or even humans in general. The results of Westen's neuroscientific experiment (Westen et al., 2006) indicating the influence of emotions on political decision-making did not only provide information about the subjects in the experiment but about human reactions in general under the activation of motivated reasoning if exposed to a stimulus in the form of a certain type and content of political message. Indicating that people as an audience of mass media are moved by "the same motives, receive the same impulses and impressions, find themselves focused on the same centres of interest, experience the same feelings, have generally the same order of reactions and ideas, participate in the same myths – and all this at the same time" (Ellul, 1965: 8), Ellul labels such a mass as psychological, if not biological. Accordingly, if a mass as an audience of mass media can be considered a "biological mass," where influence on the individual is simultaneously influence on the entire mass, then such circumstances essentially negate the limitations of applying neuroscientific methods to all participants of the mass.

(2) The second external characteristic of propaganda according to Ellul is that propaganda must be total. This means that the propagandist uses all available means and communication channels so that no part of the intellectual or emotional life remains outside the influence of propaganda; in other words, so that "man is surrounded on all sides" (Ellul, 1965: 10). He also states that every technique or communication channel must be used in its specific way to produce the best effects. Therefore, this entails adapting propaganda to the specificities of the communication channel and the means and techniques it employs.

(3) The third external characteristic of propaganda relates to continuity and duration. Ellul notes that effective propaganda must "fill the citizen's whole day and all his days" (Ellul, 1965: 17). Explaining this characteristic, Ellul states that "propaganda is not a stimulus that quickly fades, but consists of successive impulses and shocks directed at different feelings and thoughts," adding that "as soon as one effect wears off, it is followed by a new shock" (Ellul, 1965: 18). It is interesting to note that Ellul, in such formulations from the mid-20th century, practically uses language fully adequate for the application of neuroscientific methods. He identifies propaganda as a stimulus directed at various feelings and thoughts. It is also significant to place Ellul's description of propaganda having long-term inconsistencies in the context of studying the relationship between motivated reasoning and the effects of political marketing, as a commercialized version of political propaganda. Ellul points out that for an individual,

confrontation with propaganda inconsistencies is "too painful" (Ellul, 1965: 18), and when encountering such a situation, the individual "feels" it is not an attack on their beliefs and prefers to maintain previously established habits (created under the influence of that propaganda). In this section, we see perhaps the clearest link between Ellul's description of propaganda characteristics and motivated reasoning, as well as Westen's findings on the role of emotions during activation of the motivated reasoning mechanism. What Ellul describes as "too painful confrontation" that an individual avoids by feeling it is not an attack and continues with old habits essentially represents the effect of motivated reasoning, while simultaneously highlighting the role of emotions by emphasizing that the individual "feels" something. This characteristic is an adequate illustration for identifying the role of neuroscience in testing theses from traditional propaganda studies from before neuroscience emergence. Again, here we see that Ellul already in the mid-20th century observed the role of what we call motivated reasoning and the role of emotions in that process. However, only the development of neuroscience allows such theses to be tested, replacing speculative conclusions based on practical experience with exact data derived from neuroscientific methods.

(4) The fourth external characteristic relates to the organisation of propaganda. This characteristic addresses the thesis that without administrative organization, successful propaganda is impossible. Additionally, according to Ellul, propaganda organization implies that "no propaganda is possible unless psychological influence rests on reality and the recruitment of individuals into cadres or movements goes hand in hand with psychological manipulation" (Ellul, 1965: 20). He also states that, if the organization does not exert physical influence, it cannot be called propaganda.

(5) The last external characteristic of propaganda, according to Ellul, concerns so-called 'orthopraxy', that is, the focus of successful propaganda on the behaviour of the individual rather than their attitudes and beliefs. This characteristic directly relates to the mobilising role of political persuasion and will be particularly addressed in one of the upcoming chapters. At this point, it is only mentioned to clarify the context in which Ellul places orthopraxy as an external characteristic of propaganda.

4.4.2 Internal Characteristics of Propaganda

(1) The first internal characteristic of propaganda according to Ellul is what he calls "knowledge of the psychological terrain" (Ellul, 1965: 33). According to Ellul, although propaganda can create certain reflexes, it is not possible to manipulate an individual as if they were a robot (Ellul, 1965: 33). He states that abundant experience shows that a propagandist cannot go against what is already within a person, meaning it is impossible to create every psychological mechanism or produce any decision or action. For propaganda to be successful, the propagandist "must know the sentiments and opinions, current tendencies, and the stereotypes among the public he is trying to reach" (Ellul, 1965: 34). This internal characteristic of propaganda also relates to motivated reasoning, implying knowledge of the motives of the individual addressed. Ellul suggests that a propagandist should never directly attack "an established, reasoned, durable opinion or an accepted cliché, a fixed pattern" (Ellul, 1965: 34), providing detailed instructions on how to approach attempts to change already formed opinions. This characteristic will be explored further in the chapter on motivated reasoning. The essence of Ellul's thesis in the context of

understanding the psychological terrain of the individual targeted by propaganda is that existing opinions should be used, not contradicted. When Westen examines the effects of activating motivated reasoning (Westen et al., 2006; Westen, 2007), he does so precisely by investigating neuronal activity of subjects exposed to inconsistencies and contradictions. Observing what happens in the brain of an individual who activates faulty reasoning to protect their motive from obvious inconsistencies in presented facts, he effectively uses neuroscientific methods to test what Ellul describes as the internal characteristic of propaganda, often employing the same terminology.

(2) The second internal characteristic of propaganda according to Ellul concerns knowledge of fundamental currents in society. This characteristic builds on the first by emphasising that the success of propaganda does not depend solely on understanding the individual but also on society itself. In other words, the propagandist should know the socio-psychological foundations on which the society in which the propaganda operates rests, and “propaganda’s main task clearly is the psychological reflection of these structures” (Ellul, 1965: 39). This especially applies to understanding the myths of the society in which the propaganda activity takes place.

(3) The third internal characteristic of propaganda according to Ellul is timeliness, meaning “propaganda in its explicit form must relate solely to what is timely” (Ellul, 1965: 43). In practice, this means that propaganda should address current events rather than rely on historical facts. Ellul notes that modern man lives in circumstances where one thought replaces another, and old facts are replaced by new ones; “the modern man does not think about current problems; he feels them” (Ellul, 1965: 47). This conclusion aligns with Westen’s thesis that people make political decisions based on new feelings rather than new information (Westen, 2007). This internal characteristic essentially concerns adapting propaganda content to the capacities and characteristics of human memory. Here again, we see the connection between Ellul’s conception of key propaganda characteristics and neuroscience, as memory (alongside attention and emotion) is central to neuroscientific research (Bridger, 2015). Highlighting the importance of timeliness, Ellul essentially speaks not only about memory but also about attention, emphasising that only “current-events man” is a ready target for propaganda (Ellul, 1965: 47). Attention and memory are connected by the claim that events not actively present in a person’s memory do not attract sufficient attention.

(4) The fourth internal characteristic of propaganda according to Ellul relates to propaganda’s relation to undecided individuals. He emphasises that the undecided—those who have not yet made a political decision—represent “the most fertile public for the propagandist” and stresses that the undecided should not be equated with the indifferent (Ellul, 1965: 48). In attracting the undecided, Ellul presents three principles: (1) the propagandist must position propaganda within the boundaries of the focus of interest, (2) the propagandist must understand that propaganda has the greatest chance of success where the collective life of individuals targeted is most intense, and (3) the propagandist must bear in mind that collective life is most intense where it concerns the focus of interest (Ellul, 1965: 52).

(5) Finally, the last internal characteristic of propaganda Ellul identifies is the relationship between propaganda and truth. Ellul considers it necessary to distinguish between facts in propaganda messages and intentions and interpretations. He designates facts as material and intentions and interpretations as elements of morality, believing that it “pays off” for the

propagandist to base facts on truth while conducting manipulation on the terrain of interpretations and intentions (Ellul, 1965: 53).

Presenting the external and internal characteristics of propaganda is significant because it represents the context in which Ellul situates his thesis on the transformation of the propaganda process. To fully understand his thesis, which essentially concerns the mobilisation role of political persuasion in the propaganda process, it is necessary to comprehend the framework he sets for this process, which these external and internal characteristics represent.

4.5 Ellul's Concept of the Propaganda Process

After presenting the external and internal characteristics of propaganda, this section will focus specifically on what Ellul designates as 'orthopraxy' (*ortopraxy*, *orthopraxie*), given that this external characteristic directly relates to Ellul's thesis on the transformation of the propaganda process. This transformation occurs in the realm of the mobilisational function of political propaganda and emphasises the impact of propaganda on behaviour as key to the success of the propaganda process. Thus, Ellul's thesis on the sequence of the propaganda process is situated within a kind of debate with traditional definitions of this process, which concern different answers to the question of whether a successful propaganda message influences attitudes and beliefs or behaviour. In other words, Ellul provides an answer to the question raised by modern propaganda regarding the place of these two influences in the sequence of the propaganda process, specifically which follows immediately after the message is delivered. Traditionally, the definition of the sequence of the propaganda process assumes that after the message is delivered, influence on attitudes and beliefs occurs, and a change in behaviour follows as a result of that influence.



Figure 9 The traditional notion of propaganda process

Contrary to this understanding, proponents of modern propaganda emphasise the mobilisational function, which relates to the direct impact of the propaganda message on people's behavior (Driencourt, 1950; Ellul, 1965). According to their view, "giving form to a particular political content and promoting it is always, therefore, in the service of provoking certain elements of the motivational system, i.e., stimulating certain human behaviours" (Slavujević, 2007: 15). Going a step further in this understanding of the propaganda process, Ellul introduces the concept of orthopraxy, which he contrasts with orthodoxie, described as "the hallmark of traditional political propaganda emphasizing influence on changing people's attitudes and beliefs" (Slavujević, 2007: 15). In contrast to orthodoxie, orthopraxy refers to the direct orientation of political propaganda toward provoking certain behaviours, and Ellul designates this as a decisive

fact in the transformation of modern propaganda.

Ellul opposes orthopraxy, as the key external characteristic of modern propaganda, to the understanding of traditional propaganda, which has mostly been described as “manipulation for the purpose of changing ideas or opinion, of making individuals “believe” some idea or fact, and finally of making them adhere to some doctrine - all matters of mind” (Ellul, 1965: 25). Such a conception of traditional propaganda is therefore oriented toward people’s consciousness, while modern propaganda is oriented toward their behavior. Ellul points out that to view propaganda as it was in the 19th century would mean adhering to an outdated concept of viewing humans and the means by which influence can be exerted on them. He believes that “the aim of modern propaganda is no longer to modify ideas but to provoke action”, but he also underlines that “it is no longer to change adherence to a doctrine, but to make the individual cling irrationally to process of action” and that “it is no longer that to lead to a choice, but to loosen the reflexes”, but also that “it is no longer to transform an opinion, but to arouse an active and mythical belief” (Ellul, 1965: 25). In line with these views, Ellul proposes an inversion in the sequence of the propaganda process so that behavioral change follows immediately after the message is delivered, and any change in attitude and belief comes only after the behavioural change and serves as a form of rationalisation of the undertaken action.



Figure 10 Ellul's notion of propaganda process/Orthopraxy

Ellul argues that knowing what an individual believes or which idea they support absolutely does not determine how that individual will behave, and therefore, the core of modern propaganda is action. Accordingly, modern propaganda, according to him, should not appeal to the individual’s intelligence or use persuasion aimed at intelligence, since that kind of persuasion is prolonged and uncertain in its outcome. Instead, the propagandist should introduce the individual to action, and their participation in the action can be active or passive - “active if propaganda has been able to mobilise the individual for action” and “passive, if the individual does not act directly but psychologically supports that action” (Ellul, 1965: 26). A conditional parallel can be drawn between this passive participation and the previously mentioned behavioural intention. The fact that Ellul considers psychological support for action as participation greatly facilitates testing his thesis with neuroscientific methods, which are difficult to apply when the individual is in active participation. The justification for testing Ellul’s thesis on orthopraxy and the inversion of the order in the propaganda process is particularly visible in his emphasis that entering into action implies irrationality, that the propagandist does not address “intellectual persuasion,” and that the propagandist operates on the subconscious level (Ellul, 1965: 26).

Ellul states that the individual does not have to be aware of being influenced by external forces (which, according to him, is one of the prerequisites for successful propaganda), but “some central core in him must be reached in order to release the mechanism in the unconscious which will provide the appropriate - and expected - action” (Ellul, 1965: 27). Returning again to Westen’s findings on motivated reasoning and the role of emotions in activating that mechanism (Westen et al., 2006), we conclude that the neuroscientific method he applied for studying political decision-making can also be used to test Ellul’s thesis. Specifically, if the motive in the individual exposed to a political message and the emotions activated when confronted with content inconsistent with that motive are positioned as that unconscious core Ellul points to as the destination of successful propaganda, neuroscientific data on activating that mechanism provides a new level of insight into this process. Although Ellul formulated his thesis decades before the development of neuroscience, he paved the way for further research not only through speculative description of this process but also by insisting on the “scientific nature of propaganda” in the sense of its development alongside other sciences whose knowledge and methods propaganda uses. In this sense, failing to apply neuroscience to the field of his research and knowledge would be directly contrary to the platform on which he bases propaganda research and development.

Accordingly, it is especially significant that Ellul emphasizes the “separation of thought and action” in the context of propaganda’s operation in a society (Ellul, 1965: 27). He points out the trend in modern society for thought and action to be separated and notes that this mechanism is mirrored at the individual level. The consequences of such circumstances in modern society affect propaganda in the way that a propagandist can influence a person to behave contrary to their beliefs. The introduction of the individual into action occurs in the realm Ellul designates as the nexus of action and reflex, with the propagandist’s role being to activate the reflex that inevitably leads to action. Another reason Ellul places behaviour change, i.e., action, earlier in the sequence of the propaganda process than possible changes in opinions and beliefs lies in the fact that “action makes propaganda’s effect irreversible” (Ellul, 1965: 29). He notes that an individual who has taken part in a certain action is “obliged to believe in that propaganda because of his past taken action” (Ellul, 1965: 29). He explains this by stating that a person who has taken a certain action has thereby taken their place in a particular society and from that moment “has enemies” (Ellul, 1965: 29).

Ellul argues that propaganda, in the context of its mobilisation function, proceeds in two phases: there is pre-propaganda (sub-propaganda) and active propaganda (Ellul, 1965). Sub-propaganda, which occurs over a longer period, mobilises individuals so that at the moment of intense active propaganda they undertake action. Sub-propaganda happens over a longer period, without concrete ideological goals and under the influence of psychological manipulation, by creating feelings or stereotypes that will be useful when the time comes. In other words, sub-propaganda is aimed at creating a certain “psychological climate” (Ellul, 1965: 31). In the context of testing Ellul’s thesis through neuroscientific examination of the role of motivated reasoning, sub-propaganda would actually be aimed at creating a motive in the individual, which then becomes the filter through which the individual receives political messages. Under the influence of sub-propaganda, “a person begins to believe in the motives provided by propaganda to justify their actions, to interpret the meaning of their actions to themselves and others, and to provide legitimacy to their actions” (Slavujević, 2007: 15). Thus, although the impact of motivated reasoning on the mobilisation role of political persuasion is examined regarding how motive and

emotions affect the processing of a political message, it must be kept in mind that this motive is built by the prior effect of sub-propaganda. In other words, sub-propaganda creates the filter for active propaganda. The political content to which the individual is exposed over a longer period determines how the political message to which they are exposed at that moment will influence them.

In Ellul's approach to the propaganda sequence and focus on the mobilization function of modern propaganda, several key elements can be distinguished. First, this sequence involves the emission of a certain message and a change in behavior, and the change in attitude or belief does not necessarily follow from that. Thus, a change in attitude and belief may or may not occur – according to this approach, propaganda is already successful if there has been a change in behavior. Second, the approach to action is connected to the irrational and unconscious field, with the crucial role played by previously applied sub-propaganda, i.e., prolonged exposure to the influence of a certain psychological climate. Third, the propaganda process in terms of influence on attitudes implies rationalization, through which legitimacy is acquired. Unlike approaches to traditional propaganda, which assumed that attitude change precedes behavioural change, here the action is viewed as a reaction to a reflex, i.e., driven by irrational impulses, and any eventual attitude change occurs as a consequence of rationalizing the undertaken action.

Ellul's break with the traditional conception of propaganda, in which attitude change precedes behavioural change, has not been universally accepted as a permanent break but rather remains an actively open question today. For example, Nimmo (D. Nimmo) remains attached to the traditional approach to the propaganda process in his study of political persuasion, effects, and political campaign organisation. Unlike Ellul, he emphasizes the leading assumption that "a person's attitudes direct his behaviour by predisposing him to respond in certain ways to a stimulus-positively, negatively, or with indifference" (Nimmo, 1970: 164). Accordingly, he remains committed to the position that if a political leader wishes to influence the behaviour of individuals to whom they address themselves, they must first influence their attitudes.

Neuroscientific testing of Ellul's thesis cannot provide a direct but only an indirect answer to whether the success of a propaganda message depends on behavioural change and not on attitude change, or whether the attitude change is an expression of behavioural rationalisation or vice versa. Furthermore, neuroscientific studies of Ellul's thesis cannot give a complete answer to these questions, as this requires not only "translation" of neuronal activity data into the language of political communication but also positioning those findings within the broader body of knowledge in this field. The data on the neuronal background of the propaganda process are useful only within the framework of knowledge that transcends neuroscience and primarily falls into the body of knowledge from political communication. However, those data uniquely illuminate the speculative field and are especially significant in studying the role of emotions. As such, they can provide guidance and a kind of biological explanation of the phenomenon of the mobilisation function of political persuasion. Westen's findings point to the key role of emotions and are summarised in his formulation that the political brain is actually an emotional brain (Westen, 2007). On the other hand, Ellul mentions emotions only sporadically as part of the enumeration of different processes and factors that he groups under the category of the irrational. Thus, testing this Ellul's thesis, following Westen's experimental model that obtains information on the role of emotions through the neural bases of motivated reasoning, can be appropriate for uncovering new data on what

Westen calls the “political brain.” In this sense, and in line with Ellul’s principle that the development of sciences whose knowledge and methods can be applied to the study of propaganda influences the transformation of propaganda, neuroscientific testing of his thesis according to Westen’s experimental model can also serve as a springboard for at least guidelines toward a new understanding of the propaganda process in the current circumstances. From this follows the question – can the development of neuroscience in the 21st century be a driver of a new understanding of propaganda in the way that was the development of psychology and sociology when Ellul formulated his concept of modern propaganda?

4.6 Logic of Political Propaganda

The logic of political propaganda refers to the way in which the elements and phases of propaganda activity are selected and put into operation in a given propaganda effort. This includes elements such as the articulation and selection of goals, methods and means of their realisation, justification of those choices, the way people are mobilised to participate in achieving these goals, etc. Depending on which elements or aspects of propaganda activity are emphasized, propaganda can be based on either affective or objective, i.e., scientific logic. Slavujević notes that “in the part concerning the definition of goals, justification of choices, and formation of intention, political-propaganda activity is predominantly based on value-intentional reasoning, on so-called affective logic (M. Boll and J. Reinhardt), logic of feelings (Ribou), logic of the heart (B. Pascal), while the part concerning the choice of means and methods of realising goals rests on the principles of logical-discursive thinking, the so-called scientific, objective logic” (Slavujević, 2007: 62).

Thus, propaganda relies on logic based on both cognitive and affective elements, and the success of propaganda depends on the proper coordination of elements of these two logics, i.e., on the adequate application of both logics of propaganda. The relationship between these two logics has been the subject of many communication studies, precisely because this relationship is crucial in the context of the effects of political persuasion. For example, Rosenberg’s structural theory of attitude dynamics (Rosenberg, 1960) points out that in the conflict between cognitive and affective elements within an attitude structure, affective elements are dominant. This theory relates to the harmonisation of beliefs, attitudes, and feelings, i.e., the cognitive and affective, and Rosenberg (M.J. Rosenberg) indicates that if people strive for consistency between their beliefs and feelings towards an object, attitudes may be changed by modifying either beliefs or feelings (Rosenberg, 1960). A certain parallel can be drawn between this approach and Westen’s thesis that political decision changes occur due to changes in emotions rather than information (Westen, 2007). Therefore, dominant dynamics of emotion activation influence whether certain attitudes are changed or maintained. Translating this thesis into the realm of the unconscious and irrational, as discussed by Ellul (Ellul, 1965), and since “emotional brain processes are much more typically unconscious than conscious” (Franks, 2006: 38), it follows that the modification of attitudes and beliefs largely occurs under the influence of emotions activated in response to a certain stimulus. Citing communication studies that investigated the relationship between affective and cognitive elements, Slavujević emphasises the significance of McGuire’s model of volitional opinion, according to which when a series of attitudes contains internally inconsistent relations, volitional opinion prevails — that is, what the message recipient wants (Slavujević, 2007). Starting from the

notion that “what a person wants” includes reducing emotional discomfort in cases where a message attacks their motive, resorting to motivated reasoning, this model highlights the importance of studying motivated reasoning mechanisms also in the context of propaganda logic. Slavujević also highlights the importance of Festinger’s theory of cognitive dissonance, according to which “if logical inconsistencies are noticed or if messages provoke conflicting motives, the message that reduces dissonance in the recipient is accepted” (Slavujević, 2007: 62).

The relations between these two logics are very complex, and neither logic has an *a priori* advantage over the other. Just as applying either logic does not guarantee greater success in a given propaganda effort, neither can be attributed a higher or lower level of protection against manipulation. If manipulation is defined as “an attempt to win people over to goals they would not accept and participate in realising if they were aware of the real meaning, all conditions, and consequences of their realisation” (Slavujević, 2007: 62), then a propagandist’s intent to resort to manipulation can be carried out under the guise of either type of propaganda logic.

Affective logic of propaganda “represents a way of thinking in which feelings precede reason, and the rational component of the attitude is built subsequently, as justification, as the so-called rationalization of emotions” (Slavujević, 2007: 62). Authors who claim that “emotional arousal organizes and coordinates brain activity” (Le Doux, as cited in Franks, 2006: 40), and who believe affective reactions precede cognitive ones, or that cognitive processes are based on affective ones (Zajonc, 1982), essentially explain why affective logic is much more frequently encountered in propaganda efforts. Affective logic is adapted to the human trait of much easier acceptance of attitudes and beliefs consistent with one’s feelings. In other words, in the context of the previously mentioned model relating to consistency between beliefs and feelings (Rosenberg, 1960), affective logic follows the principle that it is easier for an individual to modify beliefs according to feelings than vice versa. Accordingly, propaganda based on affective logic aims at individual feelings, directing irrationally within a person to lead to attitudes and behaviours that rationalize those feelings in the manner desired by the propagandist. In other words, this logic assumes that managing emotions and affective attitude components is the most efficient way to control an individual’s cognitive mechanisms.

Propaganda based on the affective logic is particularly suitable for overcoming contradictions both within propaganda content and in contradictions between different messages from the propagandist or between what the propagandist says and does. In Westen’s experiment, when participants were exposed to contradictory statements by candidates and contradictions between what candidates said and did, these contradictions were noticed significantly less when coming from candidates they supported than from those they did not support. Furthermore, activation of brain regions responsible for emotions showed the key role of emotions in this faulty reasoning, i.e., during the activation of the motivated reasoning mechanism (Westen et al., 2006; Westen, 2007). Analysis of Ellul’s concept of propaganda shows that this concept is essentially based on the affective logic of propaganda. The difference is that Ellul insists on the notion of the irrational and subconscious rather than the affective. Slavujević believes that Ellul’s insistence on the importance of the subconscious involves obvious exaggerations, and certainly the entire conception of modern political propaganda cannot be reduced solely to the irrational and subconscious, but he also emphasizes that “the strongest stimuli for action come from emotional charges and subconscious impulses” (Slavujević, 2007: 63).

The division of propaganda logic into affective and cognitive elements corresponds with Ellul's thesis of the split between thought and feeling (Ellul, 1965). However, the justification for such a strict division rests on the open question of whether a clear line can truly be drawn between the affective and the cognitive. This dilemma in propaganda practice is resolved by acknowledging the fact that propaganda activity is never based solely on one logic but on a combination of elements of both. Nevertheless, it is necessary to note that there is a dilemma as to whether any of these elements can be called purely affective or purely cognitive. The division into affective and cognitive depends primarily on how cognition is defined. For example, "if one equates cognition with conscious thought, which is the traditional approach in philosophy, then much of emotion does not involve cognition" (Lane et al., 2000: 7). This claim simultaneously suggests that the activation of emotions mostly occurs in the unconscious domain. However, even if we start from the position that affective reactions precede cognitive ones (Zajonc, 1982), we still speak of a process that involves both components.

On the other hand, the objective, scientific logic of propaganda addresses the need for effective propagandistic action by ensuring that messages have a sufficient logical basis and adequately appeal to the rational component of attitude, at least enough for the message recipient to find a sufficient basis for the process of rationalization. This need to include cognitive elements in the logic of propaganda action stems from the human need to believe that their political decisions are reasonable and thoughtful, since "even when a person believes, chooses, or judges, they always strive to judge rationally" (Slavujević, 2007: 63). Scientific logic represents a mode of thinking in which "an attitude is rationally formed, facts available are examined, hypotheses formulated and attempted to be confirmed as true or rejected as false" (Slavujević, 2007: 64). Slavujević understands logically correct argumentation as (1) the accuracy of facts used in reasoning, (2) respect for logical rules of inference, (3) precisely defined terms used, defining an argument as "any statement that is beyond doubt and by which the validity of another statement can be confirmed, a rational procedure of proving one already proven stance by another" (Slavujević, 2007: 64). Slavujević lists rules of formal logic applied at the level of concrete messages, related to basic forms of reasoning. However, some authors, who associate propaganda exclusively with affective aspects, deprive it of any logical predication. Thus, the term propaganda may be separated from logic already in the very definition of the term as implying "non-logical, or affective appeals in the public dissemination and modification of ideas, attitudes, and beliefs" (Doob & Robinson, 1935: 88).

When speaking about motivated reasoning as a mechanism leading to faulty inference, it is significant to review these rules of formal logic since the message recipient, rationalising their decision whether related to attitude or behavior, tries to fit it into some of the formal logic reasoning rules. Here, we encounter the intertwining of affective and cognitive elements — if a political decision is an expression of the rationalisation of emotions (Westen et al., 2006), the unconscious and irrational (Ellul, 1965), and if affect precedes cognition (Zajonc, 1982), then in that context the application of these rules of formal logic can be seen through the perspective of selecting the most appropriate form of rationalisation. From the propagandist's viewpoint, logical rules of inference help to select the stimulus so that the recipient can more easily and efficiently rationalize their reaction to it. This means the propagandist must craft the message not only so that it appeals to emotions, the unconscious, and the irrational but also so that it satisfies the rules of formal logic. In other words, scientific, objective logic essentially plays the role of "packaging" in

which the message recipient receives stimuli directed both at emotions and the unconscious in the person. Simultaneously, applying rules of logical inference allows the propagandist to control which attitude component will be influenced and how. Thus, applying these rules within the scientific, objective logic of propaganda influences both the process of rationalization and the activation of mechanisms that lead to a reaction which is then rationalized. Slavujević identifies the following basic forms of inference that follow formal logic rules and are applied in propagandistic action (Slavujević, 2007: 64):

- (1) Opposition (acceptance of the truth of one predicate excludes the truth of the opposite predicate),
- (2) Analogy (based on the similarity of individual features of different phenomena, a conclusion is drawn about their identical essence),
- (3) Induction (a general conclusion is based on knowledge of the characteristics of a certain number of individual cases or a representative sample),
- (4) Deduction (conclusion about an individual case based on belief in the truth of a general statement, i.e., a general premise),
- (5) Traditional principle of sufficient reason or cause (premises are presented that indicate a causal relationship between them and the consequences stated, eliminating the impression of arbitrariness in reasoning and choice),
- (6) Principle of homology (based on one true consequence of a statement made, another consequence logically derivable from the first is considered true),
- (7) Principle of transitive implication (based on one true consequence of a statement made, not only the second consequence derived from the first but also all subsequent consequences that can be derived from other consequences are considered true),
- (8) Principle of substitution (according to this principle, one concept or symbol can be replaced by another to break the uniformity of content and reduce the saturation caused by its constant repetition without changing the truth of the statement),
- (9) Principle of reducing the unknown to the known (an innovation presented in the statement as a whole or at least in some elements is transferred to other contents already known to the message recipient to reduce resistance to the uncertainty brought by the novelty and to facilitate acceptance of novelty),
- (10) Principle of deliberate vagueness (using “open statements” where the meaning of certain terms in the statement is deliberately left vague so that such claims can be later concretised or so that message recipients themselves can specify to what or whom they refer, etc.).

These rules provide the propagandist with a kind of scheme into which they selectively place propagandistic elements, which can certainly (and often are) affective elements. For

example, take analogy: the propagandist selects similarities among phenomena to produce the effect of concluding that the essence of those phenomena is identical to that of the phenomenon in question. Thus, when explaining some purely political event, the propagandist can make analogies with phenomena from the personal life of a person that appeal directly to emotions, thereby producing the effect that the recipient identifies the essence of the political event with a phenomenon from their private life. This example shows how the cognitive element of scientific logic can be used to manipulate affective elements, and in combining these two logics in propagandistic action, the distinction becomes blurred.

It is almost impossible to fulfil all three elemental demands of political communication in a propaganda message – a) truthfulness, b) acceptability, and c) sincerity (Slavujević, 2007: 65). Therefore, in circumstances where one demand is not met, it is compensated by greater focus on another. If the propagandist does not present a message that is acceptable, they put greater focus on the truthfulness and sincerity of the message. However, the absence of any of these demands creates a “gap” in the propaganda message and makes it vulnerable. Accordingly, returning to the previous statement that it is almost impossible to create a propaganda message that is not vulnerable in this sense, we conclude that propaganda often resorts to so-called pseudo-argumentation (Slavujević, 2007), i.e., falsehoods, half-truths, or even direct lies. Therefore, when speaking about the logic of propaganda, it is important to present the field of pseudo-argumentation, because without presenting this field, it is impossible to fully understand the effects of organised political persuasion and to analyse the content of political messages as stimuli aimed at influencing attitudes and behaviour. In the context of pseudo-argumentation, it is important to point out that it is based on the “possibility of dividing reasoning into (1) psychological and (2) logical processes” (Slavujević, 2007: 65). Additionally, Slavujević emphasises the importance of distinguishing “(1) the logicity of the organisation of the propagandistic statement from (2) the nature of the motives that the propagandistic statement arouses in a person and that drive them to act” (Slavujević, 2007: 65). In such a presentation of the significant field of pseudo-argumentation in the logic of political propaganda, we see the role that the motive of the message recipient plays in how effective the message will be in influencing them. It should be emphasised that when Slavujević speaks about the role of motive, he underlines the influence on triggering action, implying that reasoning influenced by motive is actually crucial for the influence on behaviour, which Ellul focuses on as the key factor of successful propaganda. In other words, in this understanding of the logic of propaganda, we are precisely in the field of the relationship between motivated reasoning and political persuasion. Motivated reasoning, which will be discussed in more detail later, is directly connected to the logic oriented toward the motive of the message recipient and the way they will make conclusions under the influence of the message. Also, it is important to emphasise that argumentation in political-propagandistic action does not necessarily have to be verbally expressed but can be also through “a whole series of ‘perceptual proofs’ (argumentum ad oculus)” (Slavujević, 2007: 65) arguments, which include visual elements of the message, i.e., everything that is “in the eye” of the message recipient at the moment they are exposed to it.

There are different types and divisions of pseudo-arguments, and here some divisions, given by Slavujević will be presented with the aim of illustrating the nature of pseudo-argumentation but also to establish the basis for analysing the content of propaganda messages through the lens of pseudo-argumentation. Among verbal pseudo-arguments, Slavujević

distinguishes (2007: 66) qualifications (by which certain properties are explicitly or implicitly attributed to something or someone), labeling (a type of explicit qualification), and insinuations (a type of implicit qualification). Some authors see one of the basic features of propaganda in a special type of argument – argumentum ad hominem, and these arguments are “designed so that a certain statement is rejected or accepted not because of logical (in)consistency and factual (in)accuracy but because of other reasons” (Slavujević, 2007: 66). These reasons relate to every type of personal attack on someone's personality for the purpose of their disqualification, which results in the rejection of their views regardless of their content. If this type of argument is directed at pity for the one who advocates it, it is called argumentum ad misericordiam; if it is based on the threat of physical force, argumentum ad baculum; intimidation also falls into this group of arguments (Slavujević, 2007). Political propaganda also uses other types of pseudo-arguments such as (1) the argument of the majority (argumentum ad populum), when the truth of an argument is confirmed by the fact that the majority accepts it, (2) the argument from authority, where a certain authority is used as a guarantee of the truthfulness of a claim, and (3) the argument of duty (Slavujević, 2007). These types of arguments are not governed by logical correctness but by directing the psychological reasoning process. These three arguments can also be explained through the way Hovland analyses the role of the message source (Hovland, Janis & Kelley, 1953), and are certainly closely related to motivated reasoning because they appeal to the motive of the message recipient in relation to the source, which by its number, authority, or duty guarantees the truth of the claims.

When speaking of motivated reasoning characterized by faulty inference, in the context of pseudo-argumentation, we will also address some of the reasoning errors frequently used in political-propagandistic action. Reasoning errors appear logically grounded, and Slavujević distinguishes the following (Slavujević, 2007: 66):

(1) Errors in the use of factual material – these errors refer to the manipulation of facts so that by omission, invention, and tendentious selection of certain facts, despite the message recipient reasoning according to logical rules, a wrong conclusion is reached. One example of such errors is the manipulation of statistical data. An example is when a government presents data on the increase of the average salary as proof of successful economic policy but omits to provide data on the widening gap between the rich and the poor, or that the salary increase results from enormous growth in earnings of the minority while most of the population have the same or lower salary. The message recipient logically correctly concludes that the increase in average salary is a positive economic indicator, thus reaching the wrong conclusion about the rise in living standards of all citizens.

(2) Errors in the application of logical rules of inference – some examples are inference based on opposition (when acceptance of one stance implies rejection of the opposite stance, propaganda resorts to this type of reasoning error both when opposing stances mutually exclude each other and when no transitional solution exists). Other examples are reductio ad absurdum, when the opponent's stance is simplified to absurdity to make it easier to reject, and analogy. Errors in inductive reasoning generally refer to an insufficient or unrepresentative sample of individual cases on the basis of which general conclusions are drawn.

According to Slavujević (2007: 68), the most complicated errors to detect are errors in deductive reasoning. Among these errors he distinguishes the following examples: a) *petitio principii* (when one stance is proved by another which has not yet been proven), b) *circulus vitiosus* (“circular reasoning” where the premise is set as proof and vice versa), c) *non sequitur* (immediately proceeding to a conclusion not justified by previous premises), d) *ignoratio elenchi* (instead of proving one stance, another is proved, creating the impression that arguments in favour of the second stance also apply to the first which has not yet been proven).

(3) Errors due to manipulation of concepts, the most common being ambiguity of a term due to different meanings attributed to it, and the use of terms with the same root referring to cases where the meaning of one term is attributed to different terms solely based on the same root of the word.

Finally, in the field of the logic of propaganda, Slavujević points out the use of symbols, placing them in the field of reductionism as one of the “basic rules of propagandistic activity, so it acts as much as possible in the domain of the symbolic because reductionism is also a basic characteristic of symbols” (Slavujević, 2007: 69). He defines symbols as “a sign with all elements: expression, content, and meaning, but still a special kind of sign, a sign that has the ability to express an entire complex of ideas and values, a sign that has special meaning for the one to whom it is addressed and whose reaction is expected” (Slavujević, 2007: 69). Slavujević (2007) divides symbols into simple and complex and indicates their direction (whether they are aimed at positive or negative feelings) and intensity (the strength of feeling the symbol provokes).

Research on propaganda in light of the division into affective and scientific logic, i.e., the use of affective and cognitive elements, makes this field suitable for the application of neuroscientific methods and knowledge in the field of affective and cognitive neuroscience. What primarily separates these areas in this field is precisely the open debate about the existence and position of the boundary between affective and cognitive. In this sense, the application of knowledge and methods from neuroscience can be viewed as a parallel process that supports research in this area in the field of political communication. This is especially important in the field of emotions, which by definition belong to the affective field, however, certain directions in the field of neuroscience do not separate the study of emotions from the cognitive field, i.e., they consider that there is also cognitive neuroscience of emotions (Lane & Nadel, 2000; LeDoux, 2000, et al.), while others study these two fields by drawing the boundary between them (Zajonc, 1982; Panksepp, 1998, et al.). The neuroscientific perspective of studying emotions and the relationship between the cognitive and affective fields will be discussed in more detail later. Here it is only pointed out that the mentioned dilemmas in the field of the logic of political propaganda are reflected in the context of the relationship between cognitive and affective fields also in the field of neuroscience. Presenting the sources of these dilemmas and the intertwining of cognitive and affective elements in the logic of political propaganda is significant for neuroscientific research in this field because it provides insight into exactly what we investigate when neuroscientifically testing the effects of a certain political-propagandistic message. The finding of neural activity itself does not provide relevant data unless it is placed in the context and a precise analysis of which logic of political propaganda was applied in that message. Only with an adequate interdisciplinary approach is it possible to generate relevant data on which type of message, i.e., applied logic (especially in terms of a scheme of combining affective and cognitive elements) leads to which neural activities in the brain of the message recipient.

4.7 Psychological Effects of Political Propaganda According to Ellul

Besides socio-political effects, Ellul also points out the psychological effects of propaganda (Ellul, 1965). In this division, he does not speak in the context of the efficiency of political-propagandistic action, but primarily in terms of the traces that this action leaves on the psyche of the individual exposed to it. Ellul claims that a person exposed to propaganda cannot remain “intact or undamaged” by this influence, because “not only will their thoughts and attitudes be modified, but also their impulses and mental and emotional structures” (Ellul, 1965: 161). In the context of analysing the psychological effects of propaganda, the applicability of neuroscientific methods is clear, as they can provide data on the neural traces of modification of impulses and mental and emotional structures, as well as on the damage Ellul mentions. The psychological effects of propaganda, which Ellul stated in the mid-20th century produce “profound changes” (Ellul, 1965: 161), can now be viewed also from the perspective of neuroscience in the 21st century. Although psychological effects do not literally refer to the effectiveness of political-propagandistic action, they certainly directly influence its effectiveness, since the message recipient makes decisions under the influence of psychological effects. Ellul emphasizes that when investigating psychological effects, it is important to understand that each communication channel, or each medium, produces specific psychological effects, and that a comprehensive analysis of these effects requires studying each communication channel separately, and then the effects of combining communication channels and specific propaganda techniques to which the message recipient is exposed (more in Slavujević, 2007: 91-105).

The first psychological effect of propaganda indicated by Ellul is psychological crystallization, which refers to strengthening and intensifying latent attitudes and impulses in a person at the moment of exposure to propaganda. He gives the example of prejudices – a person who has latent prejudices, under the influence of propaganda telling them they are right to hold those prejudices, discovers that others share their views and under the influence of such propaganda, their prejudices strengthen and intensify (Ellul, 1965). Interestingly, he uses the term “crystallization” to describe one of the psychological effects of propaganda, after Bernays (Bernays, 1934) had already used the same term to summarise the function of public relations. It is also significant to note that Bernays uses the term crystallization of public opinion at a time when the term propaganda, due to its negative connotation, was replaced by the term public relations. However, he still essentially speaks about propaganda in the way it was understood when he justified its purpose under that name. Thus, both Ellul and Bernays speak of crystallization as an effect of propaganda and, what is even more interesting, they practically speak about the same nature of the effect, with Ellul describing it as negative and Bernays as a positive and socially necessary influence. While Bernays states that the role of this crystallization is to help people navigate circumstances in which “the mental equipment of the average individual consists of mass judgements” (Bernays, 1934: 106) about things no individual can have deep knowledge of, Ellul compares the imposition of these assessments by propaganda to creating neurotic states in the individual (Ellul, 1965).

He states that propaganda introduces a “black-and-white” view of the world around the person, maximally strengthening stereotypes and prejudices, giving as an example that this leads

to the involvement of individuals in unreal conflicts created by propaganda. Describing the effect of psychological crystallization using the example of involving individuals in artificial conflicts, Ellul considers replacing artificial conflicts with real ones as a reflection of neurosis and a result of the tendency of propaganda to give everything a narrow interpretation, separating facts from their real meanings so they can be integrated into the propagandist's system and acquire an "emotional coloration, which the non-neurotic would not attribute to them" (Ellul, 1965: 167). Thus, while Bernays views crystallization as a kind of way out of the "neurosis" of the modern person, whom society forces to have assessments about many phenomena they cannot have enough knowledge about, Ellul sees the psychological effect of propaganda crystallization as a source of neurosis in the modern individual. However, it is important to note that Bernays speaks about crystallization of public opinion more as a function of propaganda (renamed public relations), whereas Ellul talks about crystallization as a psychological effect. Still, it is undeniable that both essentially denote the same phenomenon with different evaluative connotations.

The second psychological effect of propaganda according to Ellul is alienation through propaganda. Explaining this psychological effect, Ellul states that being alienated means "to be someone other" and can also mean "to belong to someone else" (Ellul, 1965: 169). He particularly associates this type of alienation under the influence of propaganda with the creation of artificial needs, which are not the real needs of the individual. Under the influence of propaganda, the individual not only moves from a position of individual rationality to collective irrationality but also enters a situation where, for example, they experience "through artificial satisfaction of real needs, or the real satisfaction of artificial needs" (Ellul, 1965: 174). He explains this process as a reaction to the creation of artificial stimuli through propagandistic action, which results in suppressing certain personal impulses to reduce tensions in relation to such stimuli. Ellul compares this reaction of the individual exposed to propaganda to a situation "when he reacts biologically to a tranquillizer" (Ellul, 1965: 177). Here, a parallel can be drawn with the activation of the motivated reasoning mechanism. If the individual's motive is a consequence of a previously artificially created influence of propaganda, then the faulty reasoning when facing contradictory facts and data aligns with Ellul's understanding that in this way, the individual reduces tensions. Westen's research in this area emphasises the role of emotions in this process, further explaining that the reduction of tension is actually determined by the dynamics of emotions activated. However, the question arises whether motivated reasoning can be analyzed within the framework of the psychological effect of alienation through propaganda, even if the motive triggering it was not artificially created. In other words, can the fact that under the influence of motive defense and tension reduction due to negative emotions activated when the individual's motive is "attacked," also be considered a form of alienation?

The third psychological effect of propaganda mentioned by Ellul — psychic dissociation — is directly related to the mobilising function of propaganda, i.e., to Ellul's focus on orthopraxy as a key feature of modern propaganda. Namely, Ellul states that psychic dissociation is the result of the splitting of thought and action of the modern person, meaning that the "nowadays, man acts without thinking, and in turn his thought can no longer be translated into action" (Ellul, 1965: 179). He considers this a very disturbing feature of modern society. Ellul states that for the success of modern propaganda, it is even harmful for a person to think, as thinking prevents them from entering action in the required manner. He states that "action must come directly from the depths of the unconscious; it must release tension, become a reflex" (Ellul, 1965: 180). However, if we

look at the mentioned psychological effect of alienation, the reaction of an individual under its influence can also be categorised as unconscious. From this arises the question of whether action or rationalization in accordance with the attitude or motive imposed by propagandistic action is truly at the center of modern propaganda. Moreover, referring to Westen's neuroscientific experiment results that indicate the key role of emotions, it is reasonable to question whether Ellul's unconscious field can actually be equated with Westen's field of emotions. Following the trail of such interpretation and the mentioned parallels, we arrive at the ultimate question — are emotions actually the unconscious that is then rationalised in a form and manner that induces the effect of alienation, with action arising from such rationalisation? If neuroscience has provided answers related to the role of emotions in political decision-making, it is justified to test with the same methodology the dynamics of emotions in the case of action preceding or following rationalization under the influence of motivated reasoning. In any case, given all the above, it is necessary to test the relationship of motivated reasoning in the context of rationalisation and the mobilising role of political persuasion in the context of Ellul's propaganda process sequence, in which action, i.e., orthopraxy, occupies a central place.

As the final psychological effect of propaganda, Ellul mentions the creation of a need for propaganda. This psychological effect refers to the idea that “the more propaganda there is, the more the public wants” (Ellul, 1965: 182). Ellul explains this effect by stating that propaganda provides certainty to the individual under its influence, i.e., “he who permitted to be led, no longer knows where to go”, then propaganda gives the individual a sense of personal importance and finally gives them justification (Ellul, 1965: 184).

In the context of applying neuroscientific methods in the field of political persuasion effects, understanding the mentioned psychological effects of propaganda allows certain results of insight into neural activity to be translated into the language of psychology and political communication. Only through the perspective of these well-formed psychological effects of propaganda can we use neuroscientific research results to better understand the brain mechanisms behind these effects.

5. Political Marketing as a Commercialized Variant of Political Propaganda

5.1 History of Political Marketing Development

The history of political marketing development is directly connected to the history of propaganda development in the 20th century, representing both continuity and discontinuity relative to it. The terminological transformation from the concept of propaganda to political marketing in the context of certain activities in the promotion of political ideas has already been mentioned (Bernays, 1934; Slavujević, 2007; Atlagić, 2011). As noted, this transformation was primarily motivated by a value-based distancing from what was called "bad propaganda" during World War I, then a distancing from the way the Creel Commission also fought propaganda through propaganda, and during the Cold War when the word "propaganda" was declared the legacy of Dr. Goebbels and directly linked to totalitarian regimes (Atlagić, 2009: 29). In such an atmosphere of distancing from the word propaganda, "until 1948 persuasion, communication, and information were favoured terms for what had until then been called propaganda," and "the terminological transformation reflected a shift in attention from those being led to those who acted as leaders" (Sproule, 1997: 217). Therefore, the discontinuity relative to propaganda refers above all to the context of value-based distancing from the term propaganda, while continuity refers to designating by the term political marketing those activities that were earlier designated as propagandistic activity. In that sense, the history of propaganda certainly represents part of the history of political marketing.

The "birth" of political marketing as an activity is the result not only of new terminological trends toward the end of and after World War I in the context of distancing from the term "propaganda" but also of the emergence of modern political campaigns, primarily shaped by the development of mass media. The beginning of political marketing is considered to be F.D. Roosevelt's campaign in 1936, although ideas about the "so-called sale of politicians, government, its policies, etc., appeared already at the end of the 1920s" (Slavujević, 2007: 33). The development of the "campaign management" industry essentially determined the dynamics of political marketing's development, and this industry emerged as a direct successor of the public relations profession after the 1920s (Nimmo, 1970: 35). However, the term political marketing was first used only in 1956 by S. Kelly in his work *Professional Public Relations and Political Power* (Atlagić, 2009). Thus, from the 1920s, when the field of political marketing began to take shape, to the first use of the term political marketing, nearly four decades passed, during which this field was shaped by mirroring models from the parallel development of commercial marketing, political and social circumstances, and the development of mass media, with the emergence of high-circulation press playing a key role.

The appearance and development of each new medium directly shaped the channels of political advertising and the form of political campaigns, essentially charting the path for political marketing development. The rise of the high-circulation press in this sense represents a springboard for political marketing's development into the present digital age. The emergence of the high-circulation press represented the "beginning of the industrialization of the communication

process and led to a change in the form of communication, the organisation of written words, the method of information distribution, etc.” (Slavujević, 2007: 33). Kelly notes that more than anything else the public relations profession owes its existence to the development of mass communication media (Kelly, 1956: 202). Returning to the fact that political marketing arose from the field of public relations, it is clear that the influence of mass media development equally applies to political marketing.

In the U.S., Roosevelt supporters already purchased four pages in *Saturday Evening Post* and other magazines in 1916, and from the 1920s, election winners were those who spent the most on political advertising (O’Shaughnessy, 1990: 25). All this represented the precursor of political marketing “born” with Roosevelt’s 1936 campaign (Slavujević, 2007). Simultaneously, in the U.S., the emergence of new media initiated research measuring the effects of these media, which crucially influenced the form of political campaigns and the dynamics of political marketing development. As the most successful capitalist power in the 20th century, the U.S. was the ground for the emergence of political marketing and precisely there the pioneering endeavors in this field and the most sophisticated techniques were developed (McNair, 2011: 90). In the mid-1930s, the *National Center for Public Opinion Research* was established, and the first profession-based pre-election survey was conducted by Gallup (G. Gallup) in 1932 for the candidacy of his mother-in-law for Secretary of State in Iowa (Slavujević, 2007).

Already the following year, Whitaker (C. Whitaker) and Baxter (L. Baxter) founded the first professional campaign management agency - Campaigns - basing their work on experiences and knowledge from commercial advertising and public relations (Slavujević, 2007). The fact that the first professional electoral campaign agency was founded by Whitaker, a reporter and lobbyist from the field of public relations, and Baxter, a local chamber of commerce manager (more in Nimmo, 1970), indicates that professional practice in political marketing is marked by the fusion of communication and business fields. From 1933 to 1955, experts from Whitaker’s and Baxter’s agency led 75 election campaigns, of which 70 were victorious (Nimmo, 1970; Slavujević, 2007). The results demonstrated the effectiveness and necessity of developing a new field of political marketing, which from its inception until today has had election campaigns as its central activity. However, campaigns in the political marketing field development were not only marked by the development of new mass media but also by the systematisation of knowledge and experience that laid the foundation for the new discipline. This implied the professionalisation of campaign management, the use of mass media based on public opinion and media effect research, and the application of knowledge from commercial marketing. In the 1930s and 1940s, Roper (E. Roper) was the first to develop a scientifically based predictive function for public opinion research, by which he predicted Roosevelt’s re-election three times (Slavujević, 2007).

Before the advent of television, campaigns were characterized by large numbers of volunteers and fieldwork (Scammell, 1999). The introduction of television made election campaigns far more efficient, with fewer volunteers and activists and fewer face-to-face communication activities required. The first American president to systematically use television for political marketing was Eisenhower (D. Eisenhower) in 1952, and the first television spot of Senator Benton (W. Benton) from Connecticut appeared in 1950 (Slavujević, 2007: 34). Although “Eisenhower’s Answers to America” (more in McNair, 2011: 92) is certainly one of the most significant events in the emergence of television political advertising, the greatest effect of

television use in political marketing at that time is believed to have been the broadcast of Nixon's (R. Nixon) speech known as *Checkers* (O'Shaughnessy, 1990). The first TV debate was held in 1960 between presidential candidates Kennedy (J. Kennedy) and Nixon (R. Nixon). In the 1960s in the U.S., empirical research began to be linked with computer technology, leading to a shift from quantitative to qualitative research, more precise targeting of groups, longer campaign preparations, and as a result, candidates' political positions increasingly reflected public opinion attitudes and mood (Slavujević, 2007: 35). The first fully marketing-processed campaign was organised only in 1980 (campaign of presidential candidates J. Carter and R. Reagan) (Slavujević, 2007: 35).

Techniques, formats, and styles of political advertising were imported from the U.S. to Great Britain, as well as to other liberal democracies where mass media started to take a central cultural role (McNair, 2011: 100). The first market research in Great Britain was conducted by Harrison (T. Harrison) in 1937 when he established the research institution Mass Observation, while the BBC started measuring programme listenership the same year (Slavujević, 2007: 36). However, only in the 1950s and 1960s did public opinion research begin to be used for political marketing purposes. The so-called "14-day rule," introduced in Great Britain during World War II, which prohibited reporting on controversial topics two weeks before Parliamentary debates, greatly slowed the development of political marketing until 1956 when this rule was abolished (Slavujević, 2007: 36). The first elections in which television was systematically used also marked the professionalization of political marketing and political advertising in Great Britain. This occurred in 1955 when the Tories engaged Gillard (R. Gillard), and Labour failed for a long time thereafter to catch up with the Tory success resulting from this period of professionalization in political advertising (McNair, 2011). The first television interviews with political leaders were organised in 1964, and in 1959, the target group was first precisely defined, but the first fully marketing-executed campaign in Great Britain was Thatcher's (M. Thatcher) campaign in 1979 and 1983 (Slavujević, 2007: 36). Although political advertising, "also used as a synonym for political marketing" (Slavujević, 2007: 24), was imported from the U.S., comparing the years in which certain development phases occurred shows that Great Britain did not lag far behind, following the American model. That model soon became the predominant form of commercialized propaganda in all liberal democracies worldwide and underpins contemporary political marketing in those states. The brief overview of historical development is also an overview of the socio-political context that gave birth to this discipline, and without considering this context, it is impossible to comprehensively analyse and understand the effects of political marketing from its inception to the present.

5.2 Elements of Definition and Types of Political Marketing

From the socio-political circumstances in which political marketing emerges, it could be said that the definition of what political marketing is primarily depends on determining the similarities and differences in relation to propaganda, and adopting basic elements of the concept's definition from the field of commercial marketing. Returning to the previously mentioned tendency of terminological distancing from propaganda, it is important to emphasize that this primarily refers to a reaction to two types of traditional political propaganda - "the uniformity and

intrusiveness of monopolistic totalitarian propaganda and the inefficiency and diffuseness of diffuse propaganda” (Slavujević, 2007: 23). In the first case, the foundation of defining political marketing lies in highlighting the key differences in relation to totalitarian propaganda, especially in the context of setting boundaries for achieving political goals, while in the second, it lies in emphasising the efficiency and systematic nature of political marketing compared to the type of diffuse propaganda. From such outlines for defining political marketing, we see that it actually occupies a space which, in terms of the systematic application of knowledge and techniques for promoting political ideas and organization, conditionally lies between totalitarian and diffuse propaganda. What remains indisputable is that political marketing still remains within the space of propaganda, as a narrower concept relative to it, or more precisely as a type of commercialised propaganda. It could be said that elements borrowed from commercial marketing build the specificity of the form of political marketing, while its content is built through its relationship to propaganda.

There are many definitions of political marketing, and in the context of this work - which starts from political communication as the broadest concept, followed by political persuasion as a function of political communication, and by propaganda as an organized form of political persuasion - to arrive at political marketing as a commercialized type of political propaganda, the most adequate definition is offered by Slavujević. Namely, according to him, political marketing is defined as “a commercialized variant of political propaganda, directed at concrete political goals and shorter-term effects, which, under conditions of political pluralism and media autonomy, is realized through publicity and paid advertising” (Slavujević, 2007: 23). The definition of political marketing which starts from its relationship with political propaganda not only points to the circumstances in which this field arises but also to the place political marketing occupies in the broadest field of political communication.



Figure 11 The relationship between political communication, political persuasion, political propaganda and political marketing - from the broadest to the more specific terms

However, when this definition is considered in the context of highlighting the relationship between political propaganda and political marketing, it is important to emphasise that the definition underlines: a) the orientation of political marketing towards shorter-term and more concrete goals (a difference compared to diffuse propaganda), b) the realisation of political marketing activities under conditions of political pluralism and media autonomy (a difference compared to totalitarian propaganda), and c) the focus on competition for publicity and political advertising (elements of commercial marketing) (Slavujević, 2007). It is also important to stress that defining political marketing as a commercialised variant of political propaganda often leads to the conflation of political marketing and political advertising, which is why these two terms are

frequently used interchangeably. At the same time, it is crucial to point out that in American literature political advertising refers solely to paid advertising in electronic and print media, whereas in Western European literature it covers all media publications aimed at promoting the interests of a particular political party or candidate (Slavujić, 2007).

There are authors who distinguish between political advertising and political marketing in their definitions. For example, Lilleker defines political advertising as “a purposely placed piece of communication, using a range of media, designed to garner positive feelings towards the sponsor” (Lilleker, 2006: 147), while political marketing is defined as “the use of marketing tools, concepts, and philosophies in the field of policy development, campaigning and internal relations by political parties and organisations. It is seen as a reaction to the rise of political consumerism, and the collapse of partisanship in Western democratic societies as well as emerging democracies” (Lilleker, 2006: 151). Among authors who differentiate political advertising from political marketing in this way, advertising is seen merely as a part of the broader field of political marketing.

For the development of political marketing as an interdisciplinary field, it was crucial to integrate knowledge from other disciplines and sciences into this domain, which applies not only to commercial marketing but also to fields such as sociology and psychology. One particularly significant integration has concerned knowledge related to voter behavior prediction (Newman & Perloff, 2004; Scammell, 1999). A fundamental axiom of the voter behavior model integrated into the knowledge base of political marketing is that voters are consumers of services offered by politicians and, in that role, choose candidates based on the perceived value they provide (Newman & Perloff, 2004). This model assumes five distinct cognitive domains that influence voter behavior (Newman & Perloff, 2004: 20): **(1) Political issues** (i.e., the policies advocated by the candidate), **(2) Social imagery** (which refers to the use of stereotypes appealing to voters through linking candidates with selected social segments), **(3) Candidate personality**, **(4) Situational contingency** (the dimension where voters believe they could be affected by a hypothetical event profiled in the campaign), and **(5) Epistemic value** (which appeals to voters’ curiosity in the context of news arising from the choice of a particular candidate). This model represents just one example of the interdisciplinary nature and capacity of political marketing - it connects knowledge from sociology and psychology and frames it within behavior prediction principles adopted from commercial marketing.

Although political marketing originated based on certain parallels with commercial marketing, proponents of political marketing have been aware since its inception that it is impossible to fully transfer economic relations into the political sphere (Altagić, 2009). Political marketing, as a commercialisation of propaganda, implies that this element of commercialisation, although borrowed from the field of economics, is ultimately adapted to the characteristics of political persuasion. Persuasion, through its goals, effects, and overall characteristics, fundamentally determines the differences between political and commercial marketing. Marketing in politics and in the economic sphere differs primarily in that (1) in business, marketing is determined by profit orientation, whereas in democratic societies it is determined by the successful implementation of democracy, and (2) in business, research results are typically followed, whereas in politics, the candidate’s political philosophy determines the extent to which they are followed (Newman & Perloff, 2004: 19). If we translate the definition of the American Marketing

Association, which states that marketing is “an activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large” (Kotler & Keller, 2017: 5), into the field of political communication, we observe that this definition can almost be directly mapped onto the practical application of political marketing. The elements defining political marketing emerge precisely by mapping concepts from economics onto political communication, that is, political persuasion.

Accordingly, Slavujević presents the basic elements defining political marketing as follows (Slavujević, 2007: 24):

- **The political market** as an element defining political marketing creates a key distinction from political propaganda, especially totalitarian political propaganda. The market implies the existence of competition, the contest between different propagandas. Political marketing, among other things, arises as a reaction to changes in the rules of *political contests* in Western-type democracies, and these rules imply competition among different propagandas, which are commercialised and clearly distinguished both from totalitarian and diffuse propaganda. It can thus be said that political marketing offers “new ways of understanding modern politics” (Scammell, 1999: 719), but it also reciprocally influences the shaping of that politics through its effects. In the traditional sense, the term market denotes “a physical space where buyers and sellers gathered to buy and sell goods,” and economists describe the market as “a set of buyers and sellers who conduct transactions of some product or class of products” (Kotler & Keller, 2017: 7). What is a physical space for the traditional market definition, and a set of buyers and sellers for economists, represents the public in the field of political marketing.
- **Political goods** consist of “political organizations, politicians, their ideas, political affiliation, especially personal characteristics, and others, formed according to the expectations of the electoral clientele” (Slavujević, 2007: 25). However, if we start from the premise that both politicians and politics are goods sold on the market, and drawing a parallel with the field of economics where “marketing is the profitable satisfaction of needs” (Kotler & Keller, 2017: 5), the question arises whether politics articulated through political marketing creates or responds to the needs of consumers, i.e., voters. Some authors argue that the key innovation in political marketing is the postulate that the politician becomes a good adapted to the research of the “political market” (Slavujević, 2007: 25), while others see one of the key differences between political and commercial marketing precisely in the fact that politicians can determine the extent to which they adapt to the market (Newman & Perloff, 2004). In any case, due to the specificity of political goods compared to goods in economics, it is difficult to speak of complete adaptation to market research, as well as complete ignoring of such research. Perhaps the closest to reality is the definition that sees the relationship between political goods and the political market through the possibility of creating “a sense of involvement and control of its creation by consumers in order to succeed” (O’Shaughnessy, 1990: 73). The application of neuroscientific methods in studying the effects of political goods provides us with additional information about which aspects of these goods affect the market and how. If neuroscience offers us a deeper insight, previously unknown before its development, into the reactions of recipients of political messages to these messages as political goods, then

we effectively take a step further towards the thesis that the relationship between the political market and goods is interactive. Furthermore, the specificity of political goods lies also in the fact that they are “often also intangible, complex, and not fully understood by its customers,” which makes their sale different and more difficult compared to physical goods (Scammel, 1999: 727). When engaging in transactions on the political market, the buyer “invests trust (as well as money), and the producer fulfills promises” (Scammel, 1999: 728). Accordingly, it is justified to conclude that a deeper understanding of the reactions of the members of the public constituting the political market to campaigns, messages, promises, etc., which represent political goods, certainly contributes to strengthening the knowledge base on the successful functioning of that market. If we translate this into the field of neuroscience, political goods can actually be identified as stimuli, and reactions to that stimulus provide us with additional information on the effects of political marketing.

- **The consumer or buyer of political goods** in the shortest terms represents “voters in general, but also specific categories of voters” (Slavujević, 2007: 25). Just as political goods are not passive elements that merely follow market research according to some authors, the consumer of political goods is not in a passive status either. They certainly react to political goods as stimuli, but those goods are also to a greater or lesser extent adapted to prior research of the needs of consumers of political goods, who expect these needs to be satisfied by the political goods. Thus, just as the relationship between the political market and political goods is interactive—meaning political goods influence the shape and rules of the political market—the relationship between political goods and their consumers is also interactive (Scammel, 1999). The use of marketing precisely changes the relationship between leaders, parties (political goods), and voters (consumers of political goods) (Scammel, 1999).
- **Differentiation, or product positioning**, is the fourth element defining political marketing according to Slavujević, which he defines as “a clear distinction of the marketing-shaped ‘political good’ in relation to the ‘goods’ of competitors, aiming to increase its recognisability and highlight its advantages” (Slavujević, 2007: 25). Positioning thus relates to emphasising the comparative advantages of one good over another. Here too, we observe a specificity compared to the economic market, since buyers of political goods are attached to the goods they “buy in a different way.” For example, in the political market during a campaign, most “buyers” have already decided which goods they will “buy” before the campaign itself (Nimmo, 1970: 3), so positioning does not encounter neutral buyers who make decisions based solely on a “specific form of economic rationality” (Scammel, 1999: 719), but are also guided by motivated reasoning (Westen et al., 2006; Westen, 2007; Lodge & Taber, 2000).
- **Sales** in the context of political marketing consist of “organized familiarisation of the public with certain political content and securing support for certain political subjects as their bearers” (Slavujević, 2007: 26). In other words, sales in political marketing could be equated with political persuasion, that is, persuasion, in which the means, techniques, and tools of political marketing are involved during the sale. In the context of Ellul’s definition of the propaganda process, sales would represent the activation of the political message for

the purpose of influencing the behavior of recipients, and in the context of the application of neuroscientific methods, the reaction of recipients to the political message as a stimulus. Sales are, in fact, the element defining political marketing that activates all other elements from a static state and leads to their interaction.

- **Profit**, according to Slavujević, represents the final element defining political marketing, and consists of “the welfare or benefit that the entire community, a certain social group, or an individual gains from the election of a certain political subject and their opportunity to realise their political project” (Slavujević, 2007: 26). Profit is directly linked to the effects of political marketing, although it represents a more specific term, as it concerns the outcome of the application of political marketing in promoting the elected political subject.

When the renowned management theorist Peter Drucker (P. Drucker) states that “the aim of marketing is to make selling superfluous” and that “we know and understand the customer so well that the product or service fits him and sells itself” (Kotler & Keller, 2017: 5), he directly points to the fact that the key to successful marketing lies in a deep understanding of the customer, and that the more we know the customer, the less marketing is actually needed. From this, it follows that marketing is simultaneously guided by market research but also compensates for what these studies do not reveal about the customer. The application of neuroscience in the field of political marketing certainly reveals new dimensions in the context of knowing and understanding the consumer of political goods. However, in the context of Drucker’s thesis, it could be argued that the application of neuroscience is a step towards more efficient political marketing rather than the obsolescence of political selling.

5.3 Theoretical Foundations of Political Marketing

The specificity of political marketing as an interdisciplinary field that systematizes practical experience along with knowledge, methods, and results from various disciplines is also reflected in its theoretical foundations. Regardless of whether we speak about the theoretical foundations of the predecessors of political marketing, the reliance on other disciplines, or the integration of knowledge based on the systematization of practical experiences, it is indisputable that political marketing has its theoretical bases. Moreover, the interdisciplinarity of political marketing keeps the boundaries of its theoretical foundations open to knowledge from new sciences applied within political marketing, such as neuroscience.

In line with these specificities of the theoretical foundations of political marketing, since it arises as an adaptation of propagandistic-political activities to modern politics and represents a commercialised variant of political propaganda, the historical development of propaganda can also be viewed as the historical development of political marketing. This applies also to the historical foundations of its theoretical bases, which, as already mentioned, date back to ancient Greece, specifically to the Sophist movement. Plato’s vision of the organisation of society and the state “shapes a lasting orientation in propaganda that would give rise to large propaganda systems, especially in totalitarian states” (Slavujević, 2007: 43), referring to monistic propaganda systems. However, if Plato’s approach is considered the historical foundation of the theoretical bases of

propaganda, the Sophists' approach can be taken as the historical foundation of political marketing, which arose in the 20th century. Just as political marketing originated as a reaction to propaganda and adaptation to modern politics, the Sophist movement represented in ancient Greece an articulation of a modern approach in relation to the ancient tradition, emphasising anthropocentrism and practical orientation (Slavujević, 2007). Assemblies in ancient Greece, and later in Rome, were spaces for the application of oratorical skills, and rhetoric schools in Athens functioned as something like propaganda seminars (O'Shaughnessy, 1990). If we start from the fact that Plato laid the theoretical foundations of propaganda, it can be said that the Sophists, whom Plato criticized, established the theoretical foundations for political marketing, which in its present form emerged only tens of centuries later. Thus, in the relation between Plato's and the Sophists' approaches, we simultaneously find the historical basis for the relationship between propaganda and political marketing - in both what they share and what separates them.

During the Renaissance and with the advent of modern science, theoretical foundations were established aimed at further developing a modern approach to politics, primarily reflected in a greater focus on the efficiency of political representation and "the instrumentalization of the forms and content of human consciousness" (Slavujević, 2007: 44). One of the key milestones in this direction is Machiavelli's *The Prince*, which represents the first modern manual for the instrumentalization of politics, based on the concept that the end justifies the means. The development of theoretical foundations concerning the instrumentalization of politics moved along two paths - it represents the beginning of a systematic approach to the use of various techniques and means to achieve political goals, but also forms the basis for the still-vibrant ethical debate related to such an approach to political persuasion. Theoretical approaches relying on modern science reflect the emergence of a new world shaped by the secularisation of social and political life, and this world is also shaped by the technological development of communication means. Slavujević notes that many figures from the science of that time, mostly unintentionally, laid the theoretical foundations for political marketing through their works, such as Bacon (F. Bacon), Montesquieu (Montesquieu), Tocqueville (A.H. Tocqueville), Pareto (V. Pareto), Michels (R. Michels), and others (Slavujević, 2007).

The theoretical foundations of political marketing also rest on a range of 20th-century research and works in psychology, communication studies, sociology, etc. Some authors consider Lippmann's work in this regard pioneering, and his *Public Opinion* (1922) "the founding document of communication studies" (Kaid, 2004: 4), thereby certainly placing it within the theoretical foundations of political marketing. Furthermore, by establishing the concept of "the world outside and the pictures in our heads," Lippmann (1922) created the theoretical basis for further research based on the division between reality and perception of that reality, which is especially significant in the context of applying neuroscience in political marketing and interpreting insights into neural activity influenced by political messages as stimuli. Included among such foundational works is also the famous work by Lasswell (H. D. Lasswell), *Propaganda Technique in the World War* (1927). Particularly influential on the theoretical foundations of political marketing are studies in mass communication and political communication, which later became almost synonymous in terms of their focus on research into the effects of mass media (Kaid, 2004). Especially important are studies on electoral behaviour by Lazarsfeld (P. Lazarsfeld) and Berelson (B. Berelson). Lazarsfeld, one of the founders of market

research in America, also conducted the first significant study in political communication in 1940, known as the *Erie County Study* (more in Kaid, 2004).

One of the key influences on the theoretical foundations of political marketing comes from the field of psychology, with behaviourism having had a particularly significant impact by placing “the very act of choice, i.e., the stimuli of human behaviour,” at the center of attention, as well as Scott’s (D. W. Scott) study *The Psychology of Advertising* (Slavujević, 2007: 45). Even from the dedication in which the author notes that the study is dedicated to the growing number of American businesspeople who successfully apply science where their predecessors limited themselves to customs (Scott, 1908), it is clear that the author strives to apply scientific knowledge in the field of advertising. At the beginning of the study, Scott emphasises that scientific knowledge must be applied in advertising and cites as the first example the law requiring that in medicine, doctors must first be men of theory, and only then men of practice (Scott, 1908: 1). His fundamental concept was based on the “suggestiveness of the message,” which he “developed through hypnotic persuasion and the ability to evoke numerous associations charged with feelings” (Slavujević, 2007: 45).

Exactly a century later, Westen published his neuroscientific study addressing the same field that Scott addressed — the relationship between emotions and message effectiveness (Westen, 2007). The application of neuroscience, which did not exist at the time Scott published his study, is actually in line with the demands he set, relating to the use of science in advertising. In this sense, knowledge from neuroscience can be viewed as a continuation of the theoretical foundations of political marketing based on psychology. Both fields deal directly with studying how individuals think and behave, as well as the conscious and subconscious mechanisms that influence how they react to marketing stimuli. Thus, neuroscience provides not only deeper insight into voter behaviour and decision-making, but also enriches the theoretical foundations of political marketing. This approach is also consistent with the principle outlined by Ellul (1965), which highlights the need for propaganda - i.e., the field of political persuasion - to adapt to the development of the sciences on which its knowledge and methods rely.

As mentioned earlier, political marketing also draws on economic theory and practice, and Slavujević argues that this field had the most decisive influence on the conceptions of both commercial and political marketing (Slavujević, 2007). Already Bernays, in his work *Crystallizing Public Opinion* (1934), pointed out that politicians should base their communication with voters on experiences from commercial marketing. Political marketing “borrowed” knowledge from many theories and approaches in economics, including theories of subjective value, game theory, domination theories, group dynamics, etc. (more in Slavujević, 2007). Of particular importance is Downs’s model, which is based on the rational behaviour of citizens in politics. *Rational* is defined as *efficient*, and the theory of rational choice, as well as prospect theory, have since their inception been viewed as models for understanding and explaining the political decision-making process (Jović, 2020: 131). It is important to note that the transplantation of concepts from economics, as well as the application of economic models and theories, contributed to political marketing not only through their use in practice but also by highlighting the inadequacies of such application. Specifically, in the case of the rational choice model, it did not only serve in political marketing to explain rational voter behaviour, but also as a platform for precisely opposite explanations - the role of emotions and irrationality in the political decision-making process.

Finally, a brief overview of the most important works in the fields of propaganda and political marketing represents the foundation of the theoretical bases of this field. These works, starting from the interdisciplinary nature of political marketing, summarise research results and knowledge from other relevant disciplines, as well as conclusions based on the systematisation of practice and speculation. Among the most significant works published in the United States is certainly S. Kelley's (S. Kelley) 1956 work in which the term "political marketing" was used for the first time — *Professional Public Relations and Political Power*. One of the first works systematically analysing election campaign strategies is *The Making of the President 1960* by White (T. White), analysing John F. Kennedy's presidential campaign, while Nimmo's (D. Nimmo) 1970 book *Political Persuaders* represents one of the first works to successfully systematise practical experience in election campaigns. Also significant are Bernays's (E. L. Bernays) works that lay the theoretical foundation for the terminological transition from the concept of propaganda to public relations. From the French-speaking world, the already mentioned work by Ellul (J. Ellul), *Propaganda*, is particularly important, as it offers not only a detailed conceptualization of propaganda based on experience and knowledge from relevant sciences but also a reconceptualization of the propaganda process, focusing on the mobilizing function of propaganda in the context of its effectiveness. Also significant works contributing to the theoretical foundation of political marketing from the French-speaking area are Bongrand's (M. Bongrand) *Political Marketing* (1968), Lindon's (D. Lindon) *Political Marketing* (1986), and Bobin's (J.P. Bobin) *Political Marketing* (1988). In Great Britain, some of the foundational works of political marketing theory include Rose's (R. Rose) *Influence on Voters* (1967), Diamond and Bates's (E. Diamond and S. Bates) *Spot: The Rise of Political Advertising on Television* (1984), and O'Shaughnessy's (N. O'Shaughnessy) *The Phenomenon of Political Marketing* (1990). These works are largely based on systematising and analysing experiences from which new theses and conclusions arise, which are then incorporated into the theoretical foundations of political marketing.

5.4 Value Orientation as the Basis for Political-Propaganda Action Strategies

The analysis of any propaganda activity, including political marketing activities, is incomplete without understanding the political-propaganda strategy within which that activity takes place. The same political marketing message can have completely different effects and meanings when used in different political-propaganda strategies. This brings us to the importance of the previously mentioned distinction between tactical and strategic propaganda, where the interpretation of any propaganda tactic is incomplete without understanding the context previously created by strategic propaganda. This equally applies to all types of propaganda activities as well as political marketing. Whether we speak of Hitler's propaganda speech as an example of totalitarian propaganda or an election billboard as an example of modern political marketing, neither can be interpreted independently of understanding the foundational strategy behind the political persuasion at work - that is, the value orientation that determines the strategy.

Slavujević argues that value orientation “determines the central question of every politics - the goals of political action at various levels of generality, their mutual relations, the means of their realization, and the social forces as their social carriers” (Slavujević, 2007: 51). He points out the sequence in which the formulation of a certain value orientation comes first, around which ideology is then formed, from which political doctrine is derived. This sequence represents the basis of political-propaganda activity, and the grounding of political-propaganda activity in values has a twofold function (Slavujević, 2007):

- **Orientation-situational function** — This relates to positioning the individual within the environment of phenomena and events, both those in which they personally participate and those beyond their immediate experience. An individual under the influence of totalitarian Nazi propaganda considers every propaganda activity and tactical application through their positioning relative to the values and ideology underlying that propaganda. For example, they need not be personally present at Hitler’s speech to relate to it from their position regarding the values of the cult of personality or the ideology of *blood and soil*. Simply put, every propaganda activity reflects the value underpinning the political-propaganda strategy of which it is a part. That value need not be explicitly stated or verbalised to be omnipresent. Hitler need not mention the *Jewish question* in every speech for people to understand that their attitude toward his speech also positions them relative to that issue. This positioning applies not only to events or phenomena the individual personally witnesses but also to those based on what Lipman called *pictures in the head*. The prior effect of the category of propaganda Ellul designates as strategic propaganda creates “unconscious habits” (Ellul, 1965: 64) in individuals, who represent a sort of filter through which they interpret the reality around them. This effect of propaganda can also be classified as the so-called engineering of the way direct propaganda operates on the foundations of sociological propaganda (Ellul, 1965; Bernays, 1947). Every major propaganda idea not only emerges from the foundations of prior strategic propaganda but also must “articulate and contribute to the realisation of certain objective tendencies of social development and have effective social forces behind it” (Slavujević, 2007: 52). In other words, propaganda simultaneously creates and follows tendencies of social development. The same applies to the field of political marketing. When a U.S. citizen sees a campaign billboard of presidential candidate Donald Trump that reads “*Make America Great Again*,” that message carries not only the value Trump represents but also the circumstances in which that value is promoted. These circumstances, in light of the previous explanation, imply the prior strategic promotion of the idea that America has lost its significance; this idea is promoted by relying on parts of reality (following tendencies of social development) but also creates an impression of such a state of America (creating “pictures in the head”). Furthermore, an individual’s attitude toward the message on Trump’s billboard is an attitude toward the value he represents, regardless of the positive or negative connotation the individual assigns to that value relative to their worldview. In any case, this results in orientation-situational positioning of the individual.
- **Motivational-Action Function** — This function is based on the previously mentioned orientation-situational function, relating to practical action through additional incentives -

“developing a motivational system by bringing general values through a system of more concrete values to the needs and interests of people; emphasising the likelihood of certain engagement or its social (un)acceptability and (il)legitimacy, etc.” (Slavujević, 2007: 52). This function is directly aimed at motivating the individual towards mobilisation to take action, i.e., change behaviour. These two functions of grounding political-propaganda activity in values can be connected to Ellul’s concept of the propaganda sequence (Ellul, 1965), where the first function relates to influencing attitudes and beliefs, and the second to behaviour change, i.e., taking action. If we start from Ellul’s thesis that successful propaganda is based on the influence of the message on behaviour, then in the context of this functional division, we can conclude that the key instrumentalisation of value-based propaganda activity lies in activating the motive that drives the individual to action. Accordingly, it can be concluded that, ultimately, the value basis of political-propaganda activity is oriented towards managing motivated reasoning of individuals influenced by that activity. Therefore, investigating the mobilising role of political persuasion and the role of motivated reasoning in the context of political marketing effects must take into account the value basis of political-propaganda activity if it aims to understand the foundation on which the motive for individual action under the influence of a political message arises.

Thus, to better understand the role and effects of political-propaganda strategy, it is necessary to understand human beings’ relationship to values. Knowledge from neuroscience related to the neurobiological foundations of values (Changeux et al., 2005; Damasio, 2005) certainly provides significant insight into a deeper understanding of how values arise and influence our thinking and behavior. How values originate and their role in our personal and social life are questions addressed in various scientific fields such as philosophy, anthropology, psychology, sociology, and others. However, developments in neurobiology and neuroscience have offered new answers to these *old questions* about values. Understanding the neurobiological process of emotion construction starts from the premise that a biological *scheme* existed for the intelligent construction of human values, which was also present in other species and in early stages of human development (Damasio, 2005).

Damasio, from the perspective of cognitive neuroscience and neurobiology, directly links the origin and functioning of values to *social emotions*, which he refers to as *action programs*, reflected in deep human values typically expressed through ethical or aesthetic impressions (Damasio, 2005). Damasio suggests that values actually arise through a process of fine cultural tuning of reactions to an emotionally competent stimulus (ECS), pointing out that this entire process occurs on an intuitive level, but also stressing that values should certainly not be reduced solely to intuitive reactions. For this reason, he emphasises the process of cultural and social tuning, highlighting the importance of this process on the path from emotional reaction to values embodied, for example, in a social norm. However, insight into the neurobiological foundations of values gives us new information about the role of emotions in the context of the foundations of political-propaganda strategy. If we consider Westen’s research on the role of emotions in activating the mechanism of motivated reasoning (Westen et al., 2006; Westen, 2007) and Damasio’s thesis on the role of emotions in value construction, we can conclude that their findings converge precisely on the motivational-action function impregnated with values in political-propaganda activity. If social emotions, in the role of “action programs,” underlie emotion

construction, and emotions accompany the activation of motivated reasoning in response to whether the individual feels their motive is “attacked” by the message, it is reasonable to pose the question whether emotions are at the core of the motivational-action function. In other words, do emotions serve as the bridge between the role of values and the motivational-action function of the relationship between values and political-propaganda activity?

Also, when discussing the role of motives and motivated reasoning, it is important to consider two traditions of approaches to how individuals react under the influence of values in the context of moral judgments. According to Damasio (2005), one tradition relies on the assertion that when confronted with a situation, we use reason to detect the violation of a norm, then also use reason to measure and classify that violation, and then again by reason to make a judgment or impose a sanction. This tradition is associated with thinkers such as Plato, Kant (E. Kant), and Rawls (J. Rawls). The other tradition, linked to Hume (D. Hume) and Smith (A. Smith), relies on the claim that we react emotionally and automatically to social situations, producing moral sentiments and intuitive responses that guide our reaction to the situation. According to this tradition, after intuitive reasoning, rationalization occurs, i.e., the conclusion or decision is reached as a *post-hoc* construct, not deductive reasoning. Westen’s experiment, which shows that decisions result from rationalisation of emotional reactions during motivated reasoning, aligns with this tradition.

Finally, to fully understand the significance of the value basis of political-propaganda strategy, it is important to indicate what that strategy entails. Slavujević offers a definition that defines strategy as “a long-term program of political action, a premise of planned and coordinated management of politics and propaganda activities, a condition of offensiveness, consistency, and continuity of the propaganda performance, as well as the dynamization of its intensity” (Slavujević, 2007: 55). Additionally, he states that strategy also represents “a guarantee of complementarity of general and long-term goals of the political subject’s action and the concrete immediate goals, means, and expected effects of the propaganda campaign” (Slavujević, 2007: 55). Slavujević (2007) identifies the following political-propaganda action strategies: (1) identity of general political goals and main directions of propaganda activity, (2) complementary presentation of all elements of the political subject, (3) unity of intentions throughout the entire propaganda activity, (4) coherence of content elements within individual propaganda messages, and (5) selection of factual material within the propaganda message.

5.5 The Principle of Political Marketing Efficiency

The principle of efficiency represents the supreme principle of political marketing (Slavujević, 2007) and is one of the methodological postulates that constitute “the fundamental principles guiding political marketing in its relation to the reality it addresses, as well as the audience to which it presents its products” (Slavujević, 2007: 75). It has already been mentioned that political marketing emerged as a kind of new philosophy of relation to reality and the needs of modern politics, but also as a reaction to the weaknesses of propaganda. The transition of political marketing from propaganda does not only occur as a response to the socio-political need to distance itself from the negative value connotation caused by the abuse of propaganda during

the First and Second World Wars, but also as a response to lessons learned about the inefficiency of traditional propaganda. Borrowing terminology from economics, political marketing adopts a market logic whereby the key is successfully selling a product.

The orientation toward concepts in which the process of promoting political ideas is analysed and adjusted according to effects is present in works that still treat these concepts within the terminological framework of propaganda. Thus, Ellul, when emphasising the importance of directing a political message toward influencing behavioral change, speaks of propaganda efficiency. It is important here to highlight the difference between the effects and efficiency of political marketing - effect is what results from political marketing activity, while efficiency refers to the means and methods used to achieve the desired effect. Ellul's proposal to transform the sequence in the propaganda process already ventures into the field of political marketing, embracing the methodological postulate of efficiency. By pointing out that the study of propaganda must follow the development of sciences whose knowledge is utilized in this field (Ellul, 1965), he essentially refers to adaptation to modern politics, upon which political marketing is founded. In other words, although Ellul never uses the term political marketing, he essentially points to its foundational principles. Ellul's work exemplifies how political marketing arose as a result of analyzing the weaknesses of traditional propaganda and the tendency toward new concepts primarily driven by the quest for models that increase the efficiency of political-propaganda action.

In the case of Ellul's thesis, it is therefore irrelevant whether a particular political message influences an individual's attitudes or beliefs to any extent; what matters is whether it produces a change in behaviour. This brings us to the key distinction between propaganda and political marketing - political marketing accepts elements of commercial marketing, i.e., the commercialisation of propaganda. Just as in an economic market success is measured by whether the buyer purchased the product, regardless of what they actually think of it or whether they truly need it, so in political marketing the principle of efficiency dictates that the crucial outcome is the desired change in individual behavior, not necessarily their opinion or attitudes. Thus, in this case, the effect is the change in behavior, and efficiency is determined by the ways in which that change is most quickly and effectively influenced. If we start from Ellul's thesis that individuals are driven to action by irrational means and Westen's findings on the role of emotions in political decision-making, we conclude that neuroscientific research provides us with guidance for effectively managing emotions to achieve the ultimate effect - the change of individual behavior.

Slavujević (2007) associates the principle of efficiency with the fundamental orientation of political marketing, which manifests in the fact that it (1) has strictly defined and time-limited goals, (2) reacts quickly to societal problems and immediately adapts to the political moment, (3) promptly applies the results of relevant scientific and professional research, (4) utilizes all available means of persuading people, and (5) experiences continuous, immediate evaluation in political life, i.e., insists on researching the effects of its activities, etc. Besides the principle of efficiency, Slavujević identifies the following methodological postulates of political marketing — (1) simplification of the worldview, (2) personalisation of politics, (3) separation of identity and image, and (4) audience segmentation and propaganda layering (Slavujević, 2007).

6. Theories on the Effects of Political Marketing

Theories on the effects of political marketing actually emerge from various communication theories about the effects of mass communication, or mass media. These theories are based on the results of a large number of studies conducted over the span of a century. Due to the abundance of research in the field of media effects, there are different systematisations of these studies according to various classification criteria. One classification, which relies on the systematization by Vorderer et al. (2019), divides the research chronologically into phases as follows: (1) The first phase – All-powerful media (from the 1920s to the 1940s), (2) The second phase – Limited effects (from the 1940s until the late 1960s), (3) The third phase – Long-term effects (from the 1960s onward), and (4) The fourth phase – Cognitive shift (Ninković Slavnić, 2024).

Regarding the classification related to theories, since this work deals with the mobilisational role of political persuasion in the context of political marketing effects, the most appropriate classification is offered by Slavujević (2007), which distinguishes between (1) Theories on effects on attitudes and (2) Theories on effects on behavior. This classification most closely corresponds with the analysis and examination of Ellul's thesis, which specifically concerns the effectiveness of influence on attitudes and behaviour in the sequence of the propaganda process. Therefore, these two groups of theories will be presented first, followed by an overview of theories concerning the study of mass communication effects (Slavujević, 2007).

6.1 Theories of Effects on Attitudes

Numerous theories address effects on attitudes, with the common premise that in the scheme of the propaganda process, influence on attitudes precedes influence on behavior. These theories posit that under the impact of a political message, changes in attitudes occur first, which then cause changes in behavior. Slavujević (2007) distinguishes within these theories between (1) theories of maximal attitudinal effects and (2) theories of limited attitudinal effects (Slavujević, 2007).

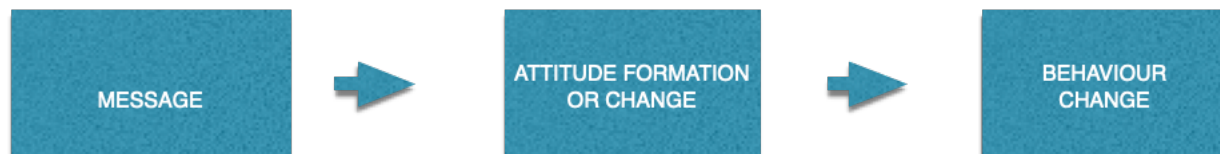


Figure 12 Persuasive sequence according to theories of attitude change

6.1.1 Theories of Maximum Effects on Attitudes

In the early phase of theories about effects on attitudes, emerging from the 1920s to the 1940s under the influence of the experience of the First World War, the rise of dictatorial regimes,

the ascent of fascism, and the development of consumer society (Ninković Slavnić, 2024), research on effects conducted during this period was characterised by viewing social changes in the context of the development of mass society. Society, on the one hand, faced the development of mass communications and the changes brought by the formation of mass society, and on the other hand, the destructive effects of propaganda during the two world wars that occurred in these circumstances. During this phase, the dominant conception of omnipotent media was established, significantly influenced by theorists from the Frankfurt School (Milivojević, 2001). Above all, the experience of the "encounter" between the technological development of mass media and wartime propaganda led to the perception of media as omnipotent, i.e., their effect on the audience was viewed as almost hypnotic. This conception, in a way, also represented society's defensive reaction to the destructive impact of war propaganda and a kind of warning about media effects to form some kind of preventive reaction for the future. During this period, the theories of effects were marked by the so-called hypodermic needle theory (also called the magic bullet theory or hypodermic syringe theory), founded on the belief that media have the power to directly influence people's attitudes and behavior, that is, they have "inevitable, universal, uniform, and powerful effects" (Slavujević, 2007: 193), before which the audience is powerless. According to this theory, a message can influence people's attitudes and beliefs if it meets five conditions, namely if it is: (1) current, (2) well understood, (3) relevant to the evaluation of some event, phenomenon, or personality, (4) different from existing beliefs, and (5) trustworthy (Slavujević, 2007: 193).

This theory emerged under the influence of behaviourism, relying on the stimulus-response theory (S-O model) (Ninković Slavnić, 2024: 104). Even in this early phase of effect theories, within the S-O model, one can observe the precursors of what nearly a century later became the subject of effect research using neuroscientific methods. Thus, the initial framing of effect research within behaviorist stimulus and response frameworks opened the way for exploring the stimulus-response relationship through methods developed much later. In this sense, it can be said that neuroscientific research in this field indirectly relies on the behavioral epistemological paradigm, starting from the basic question addressed by the behavioral approach in social and political analysis: "why do people behave the way they do?" (Marsh & Stoker, 2005: 43). If behavior is seen as an act that includes muscular reactions and spatial movements, and implicit behavior or thought is distinguished from that act (Milosavljević & Radosavljević, 2006: 340), then neuroscience can conditionally be placed in the field of behavior—as "neuron behavior." In other words, "neuron behavior" or "neuronal act" represents the physiological basis of implicit, and thereby explicit, behavior. Observing behavior in this extended sense, based on knowledge from neuroscience, reveals how thin the boundary actually is between influence on attitudes and influence on behavior. In a certain way, neuroscience enables the demystification of this boundary and provides new insights into the relationship between attitudes and behavior through the observation of "neuron behaviour." In this respect, this early phase of media effects research, characterised by the perception of media as omnipotent, or omnipresent, foreshadows categories and terms that would be used a century later in the application of neuroscientific methods in this field. It is important to note that the S-R model has its extended behavioral scheme in the form of the *S-O-R model* (where O stands for organism) (Milosavljević & Radosavljević, 2006: 341), and neuroscience can provide a crucial contribution to these theories by investigating intervening variables between stimulus and organism, and organism and response.

Thus, in this early phase dominated by the so-called *magic bullet theory*, communication is viewed as a “transmission process by which messages are sent from sender to receiver” (Ninković Slavnić, 2024: 104). The behaviourist approach to media effect analysis implied that every message was perceived as a “direct and powerful stimulus to action that causes an immediate and direct response” (Milivojević, 2001: 158). Regarding the behavioural foundations of this theory, it is important to emphasize that it assumes human behaviour as the result of involuntary reactions to environmental stimuli. However, “what happens inside the human mind during this process is treated as a black box” (Vorderer et al., 2019: 7, cited in Ninković Slavnić, 2024: 104). If we start from the fact that neuroscience allows at least partial opening of this black box, we see how connected the beginnings of effect theory foundations are to today's application of neuroscience in this field. Neuroscience provides insight into the neural background of what has been labeled as “involuntary reaction.” Another connection between neuroscience and this early phase of media effect research lies in the element of uniformity of reaction—the hypodermic needle theory assumes that all people react equally to media influence, while neuroscience, based on human brain physiology, also assumes uniformity at least in those brain mechanisms common to the entire human species.

The period of this early phase of effect theories coincides with the period of active study of propaganda effects during the two world wars. We are talking about a time before the emergence of political marketing, so the amalgamation of propaganda studies at that time, the establishment of effect theories, and early research in this field also represent the foundations for the later emergence of political marketing. The most famous work of the progenitor of propaganda analysis and proponent of establishing effect studies, Harold Lasswell's *Propaganda Technique in the World War* (1927), is precisely based on the foundations of the hypodermic needle theory. Thus, the first systematic studies of propaganda started from theories based on the assumption of media omnipotence and audience passivity. Since Lasswell defines propaganda as the management of collective attitudes (Lasswell, 1927), his work can certainly be classified within the theories on effects on attitudes.

6.1.2 Theories of Limited Effects on Attitudes

Questioning and contesting the dominance of theories based on the assumption of media omnipotence and maximal effects on attitudes began even before the Second World War, however, a new theoretical position was ultimately established in the 1960s under the influence of Joseph Klapper's (J. Klapper) *The Effects of Mass Communication* (1960). From the earliest phase marked by the dominance of the hypodermic needle theory up to Klapper's book, there was already an ongoing discussion based on the idea that direct media influence with maximal effects on attitudes is actually an extremely rare phenomenon. Besides Klapper, theories of limited effects on attitudes were also based on the works of authors such as Berelson (B. Berelson), Steiner (A. Steiner), Katz (E. Katz), Lazarsfeld (P. Lazarsfeld), and others. Two main theories that emerged from these works are (1) the theory of individual differences and (2) the theory of social determinants (Slavujević, 2007). It is important to emphasize that theories of limited effects do not deny media effects, nor necessarily describe them as weak; rather, they differ from theories of maximal effects on attitudes primarily by pointing out the limitations of effects determined by the circumstances in which influence is exerted.

Theories of limited effects (also referred to as the law of minimal effects) start from the premise that “people enter communication processes with certain group and individual socio-demographic and psychological characteristics, with already formed beliefs that are not easily changed” (Slavujević, 2007: 195). Thus, this model implies that after a message is disseminated, its influence on changes in attitudes and behavior is both limited and conditioned by predispositions and selective exposure.



Figure 13 Persuasive sequence according to theories of limited effects (adapted from Slavujević, 2007: 195)

When discussing theories of limited or minimal media effects, we also address the context of continuity or discontinuity in relation to propaganda. Since the development of these theories occurred after the Second World War, the traumatic experiences of the war and the negative connotation of the term *propaganda* certainly influenced their development. The term *propaganda*, which after the Second World War acquired the connotation of an “explosively emotional term” (Milivojević, 2001: 164), was replaced by the term *communication*. Advocates of this change included authors such as Lazarsfeld and Merton, who argued that “communication research is the legitimate successor to the outdated study of propaganda” (Milivojević, 2001: 164). Thus, in this phase, we again encounter research practically of the same field – communication – but through the lens of different terminology, which was determined not only by the development of science but also by socio-political circumstances. However, although the intention was to limit propaganda research after the phase of limited effects theory to direct persuasion and focus on commercial and political campaigns (Milivojević, 2001: 164), it was practically impossible to separate the research of propaganda and communication.

The dominant S-R model in theories of maximal effects is expanded in theories of limited effects by including the organism as an intervening variable between stimulus and response (S-O-R model). This also reflects the key difference between these two types of theories. The individual is no longer viewed as a passive recipient, as in the hypodermic needle theory, but their characteristics are taken into account, which also influence the intensity, direction, and nature of the impact on their attitudes and behaviour. In the context of modern applications of neuroscientific knowledge and methods in this field, this shift in effects research is crucial, as the contribution of neuroscience lies precisely in the deeper investigation of the *O* (organism) element in the presented schema. Milivojević (2001) points out that the development of this research phase, dominated by theories of minimal or limited media effects, was conditioned not only by Cold War experiences and circumstances of belief in the integrative role of media but also by the rise of social sciences, especially social psychology, and the development of new research methods. Milivojević situates this shift within the so-called scientific code, while theories of maximal effects fall under the so-called behavioural code (Milivojević, 2001). If we place these conditions under which the paradigm shift in media effects research occurred in the context of contemporary developments in neuroscience and neuroscientific methods, it is justified to conclude that neuroscience also poses

new challenges in this field. Since today the individual, i.e., the organism, can be observed at the level of neural activity during exposure to political messages, this certainly raises questions about how these new findings can redefine theories of influence on attitudes and behaviour. In other words, whether new findings in neuroscience and their application in effects research open the way to formulating some kind of 'neuro code,' under which a new phase of effect theories could develop.

Klapper, whose work represents one of the key milestones from the theory of maximal to limited media effects, argued that media rarely have a direct impact (Rogers, 2004). He believed that media primarily function by reinforcing existing beliefs, which is why he is considered the founder of the so-called reinforcement doctrine (Ninković Slavnić, 2024). The classification of effects based on changes in the direction and intensity of attitudes provided at the time an answer to the question of how media influence attitudes and to what extent, if not from a position of omnipotence. In seeking an answer to this question, Klapper (1960) classifies possible media effects as follows (Slavujević, 2007: 193): (1) formative effects – creation of an attitude towards a certain phenomenon, event, or person, (2) reinforcing effects – strengthening and intensifying beliefs, (3) effects of small changes – modification of attitude without significant change, and (4) effects of attitude change – complete reversal of attitude. Another classification indicated by Slavujević (2007) is Kent's (A. Kent) 1985 classification of effects into: (1) updating effects – maintaining an already formed attitude with new, current information, (2) attitude strengthening effects, (3) attitude weakening effects, (4) formative effects, (5) shaping effects – articulation and crystallization of a previously incompletely formed attitude, and (6) attitude conversion effects.

Another significant classification is the one offered by Nimmo, which directly concerns the effects of political campaigns, i.e., political propaganda and political marketing on people's attitudes. This classification also falls under theories of influence on attitudes, as Nimmo bases it on the earlier mentioned claim that "persons's attitudes directs his behavior by predisposing him to respond in a certain way to a stimulus - positively, negatively, or with indifference" (Nimmo, 1970: 164). Thus, the classification that Nimmo offers starts from the premise that attitudes govern behavior, and in order to influence behavior, one must first influence attitudes. Slavujević (2007: 194) classifies the effects distinguished by Nimmo (1970) as follows: (1) acquisition effects – aligning with a certain party or candidate despite previous affinities toward another party or candidate. Nimmo refers to this effect as "converting" (Nimmo, 1970: 165); (2) modification effects, among which the strengthening of attitudes, weakening of attitudes, neutralization of attitudes, crystallization of attitudes, and activation effects stand out; and (3) formation effects – the creation of attitudes toward a new phenomenon, event, party, or candidate. Nimmo notes that the most common effects among those listed are the strengthening and weakening of attitude intensity, while acquisition effects are the rarest (Nimmo, 1970).

The previously mentioned formulation of the theory of individual differences and the theory of social determinants essentially relies on identifying limiting factors of message effects, which Nimmo classifies as follows (Nimmo, 1970; Slavujević, 2007):

(1) Limiting factors of the communication environment: a) personal factors – such as intelligence, personal traits, and individual cognitive styles; b) social factors – the influence of group norms, standards, and prejudices on the group member; c) source of information – the reputation and

trustworthiness of the individual delivering the message; d) form and content of the message; and e) the media.

(2) Limiting conditions of voting behaviour: a) personal factors – relating to voter predispositions; b) social factors – concerning the immediate social environment of the voter; and c) political factors – relating to the voter’s assessment of the acceptability of the political offer.

6.2 Theories of Effects on Behaviour

Theories of effects on behaviour, also known as theories of perceptual effects, are based on the assumption that the key effects manifest in behaviour change rather than attitude change. This theory is also called the theory of perceptual effects because it posits that behaviour change depends on changes in perception, i.e., observation, rather than changes in attitudes or beliefs. This theory is directly related to the mobilization function of political persuasion and rests on the claim that only a change in behaviour constitutes a real effect of successful political persuasion. When discussing this theory in the context of attitude influence, it assumes that the “expected effect of persuasion could only be conversion, i.e., a change in the direction of attitude,” and that communication which “only changes the intensity of the attitude - by strengthening, neutralizing, crystallizing, or activating it - is almost by definition ineffective” (Slavujević, 2007: 198). In this sense, the theory of effects on behaviour can be seen as a reflection on both the theory of maximal effects and the theory of limited media effects. In other words, from the perspective of this theory, the influence on attitudes is effective only if it produces complete attitude conversion (maximal effect), but only if this conversion leads to a change in perception, which subsequently leads to a change in behavior. Conversely, the theory of limited and minimal effects has led to increased pessimism regarding effects resulting from attitude influence. It is important to emphasize that the theory of perceptual effects “abandons the change of voters’ attitudes as the purpose of persuasion, instead viewing its purpose as changing the perception of weakly involved voters so that their behavior changes without a change in attitude” (Slavujević, 2007: 198).



Figure 14 Persuasive sequence according to theories of effects on behaviour (adapted from Slavujević, 2007: 198)

One of the most influential authors who adhered to the view that successful political persuasion is that which targets behavioural change is Ellul. His thesis is based on the assertion that “the aim of modern propaganda is no longer to modify ideas, but to provoke action” (Ellul, 1965: 25). It is significant to note that Ellul presented this thesis on so-called orthopraxy versus orthodoxy a few years after the publication of Klapper’s work, which marks a springboard for the theory of limited or minimal media effects. This chronological marker seems important for two

reasons. First, Ellul analyzes propaganda and the scheme according to which influence on behavioral change immediately follows message emission, also situating this within the context of propaganda, i.e., the propaganda sequence. This aligns with the aforementioned tendency that after the development of the theory of limited effects, propaganda research remained largely within the bounds of direct propaganda and political or commercial marketing (Milivojević, 2001). Thus, when Ellul speaks of the success of modern propaganda, which he directly links to behavioral influence, he refers to direct propaganda. Second, Ellul's work was published in the years when Nimmo released one of the first works systematizing electoral campaign strategies (Nimmo, 1970).

However, Nimmo analyses the effects of electoral campaigns from the perspective of influence on attitudes and expresses a pessimistic view that campaigns actually have very little impact on voters' attitudes. He notes that most voters decide whom to support before the campaign begins (Nimmo, 1970). Accordingly, he argues that electoral campaigns may have the greatest effect on undecided voters who have yet to form an opinion. This aligns with the shift in focus within the theory of observational effects from the entire electorate to the "segment of insufficiently interested and politically weakly engaged voters" (Slavujević, 2007: 198). Thus, although the effect of electoral campaigns is voting, i.e., behaviour, Nimmo analyzes this act based on influence on attitudes, not directly on behaviour. Although stemming from different positions regarding whether effects are viewed through attitude or behavioural influence, fundamentally, both Ellul and Nimmo measure the success of the ultimate effect by behavioural change. In other words, they agree that even if changes in attitudes occur under the influence of a message, the effect of propaganda or political marketing is measured solely by behavioural change.

Assuming the premise of this theory that change in perception leads to behavioural change, and that behavioural change is the key effect, the effectiveness of propaganda and political marketing therefore depends on the efficiency of finding ways to influence individual perception. Although Ellul nowhere explicitly mentions perception as an element of the propaganda sequence, he notes that the individual is irrationally led into the process of action (Ellul, 1965). A parallel can be drawn between Ellul's element of irrationality and the change in perception depicted in the presented scheme of observational effects theory. Thus, according to this theory, it is not important what a person truly thinks or what their attitude is, but rather how they perceive reality. This can also be connected to Lippmann's concept of *pictures in the head* (1922). The study of effects has increasingly focused over time on attempts to reveal how voters reason, that is, the "unique organization of their motives, beliefs, and habits, that, taken together, make sense of their political choices" (Caprara & Zimbardo, 2004: 581), and the voter has increasingly been regarded as an active agent whose decision depends on how much their personal attitudes and beliefs correspond with their perception of the political offer. The so-called cognitive revolution of the late 1960s and the affective revolution occurring at the end of the 20th and into the 21st century have resulted in studies of perception that also examine the significance of affect in political decisions (Caprara & Zimbardo, 2004). To understand how an individual constructs perception relative to the emitted message, we must understand cognitive mechanisms — how information is organized in their memory, how memory is used, how their knowledge influences learning new information, etc., as well as affective mechanisms relating to the influence of emotions on the way reality is perceived under the influence of the message.

Westen's research indicating the key role of emotions during the mechanism of motivated reasoning (Westen et al., 2006) through analysis of the interaction between cognitive and affective factors essentially also refers to the factors that shape an individual's perception. Depending on whether the individual perceives that their motive is "supported" or "attacked" by the information in the message to which they are exposed, they react driven by emotions activated in the process. Thus, not by rational assessment of the accuracy and logic of the messages, but by the emotions those messages evoke within them. Neuroscience certainly offers an unprecedented level of analysis, prior to its development, of how an individual's perception or "pictures in the head" are constructed. The development of neuroscience offers a deeper understanding of the "relationship between the external environment and human emotion and brain functions that hold a great deal of political significance" (Friend & Thayer, 2013: 73).

When speaking about perception as a factor influencing behaviour, neuroscientific research also points to the existence of perceptions that an individual might not even be consciously aware of. What was previously colloquially called a "gut feeling" has been explained by neuroscientific research at the level of neuronal bases. An example of this is the study by Peelen et al. (M.V. Peelen) published in *Nature*, which explained the situation where American soldiers in the wars in Iraq and Afghanistan had emotional experiences and reactions in situations where they anticipated the presence of dangerous explosive devices before actually seeing them. Using magnetic resonance imaging, they demonstrated through analysis of neuronal mechanisms involved in extracting information from complex natural scenes, that there is "a possible neural base s for both the limitations in our perception of real-world scenes and our remarkable ability for categorizing such scenes inside and outside the focus of spatial attention" (Peelen, Fei-Fei & Kastner, 2009:96 as cited in Friend & Thayer, 2013: 73). In the example with American soldiers, such research answers the question about the source of their intuitions, pointing out that the brain registered the presence of explosives even before they could consciously understand it. Thus, when discussing perception as a factor in the effects of a political message, neuroscience allows us to understand the foundations or causes of that perception of which the individual is unaware and which they certainly could not report in self-assessment other than as a feeling that cannot be rationally explained.

Insight into an individual's neuronal activity can actually provide valuable information about the position of emotions, or affect, as a generator of the mobilisation role of political persuasion within the presented scheme of observational effects theory. A crucial question to which neuroscience can provide an answer in this context is whether perception arises as a consequence of the activation of emotions or whether emotions are activated in relation to the individual's perception. If this question is placed in the broader context of the presented scheme, i.e., the theory of behavioral effects, it can ultimately be reduced to the question of whether an individual, if influenced by emotions and irrationally (Ellul, 1965) led to action, creates perception before or after the undertaken action. In the context of motivated reasoning, i.e., rationalization as the product of such reasoning, the question can also be posed as how the undertaken action influences the process of rationalisation.

As decisive factors in changing voter perception, Slavujević identifies (2007: 198):

- (1) Message form - relating to argumentation style, mode and style of communication, prestige of the source, etc.
- (2) Imagination - referring to the ambiguity of the message in terms of its content, quality of the electoral program or candidate, allowing audience members can project their own needs and aspirations onto relevant perceptions.
- (3) Media prestige - relating to the fact that information transmitted by trusted media significantly influences a voter's final electoral decision, regardless of how trivial the information may be. This particularly concerns undecided voters.

6.3 Research and Theories of the Effects of Political Marketing

As previously mentioned, research on the effects of political marketing relies on the tradition of media effects research, which began to be conducted in the 1920s. It was also noted that throughout the past century, this research has been systematized in various ways according to different criteria. Based on these studies, numerous theories of effects have emerged, of which the theories concerning attitude influence and behavior influence have been presented. These two theories reflect the first two phases of media effects research - the phase indicating maximal effects and the second phase grounded in findings about limited or minimal media effects. Here, a brief overview will be given of the next two phases in the development of media effects research, along with a presentation of the most influential theories since the origin of media effects research.

Following the phase of limited or minimal media effects in effects research, the third phase emerged, which could be described as the phase where effects are predominantly viewed as long-term (Ninković Slavnić, 2024) or as the phase of the cultural turn and redefinition of effects (Milivojević, 2001). Milivojević (2001) characterizes the third phase as the most turbulent period marked by challenges to the absolute dominance of the prevailing paradigm. Unlike the second phase, which was based on a post-war optimistic view of pluralistic society and the integrative role of media, this phase is distinguished by criticism of the post-war idealisation of modern society. In this phase, "communication is seen as the production of meaning rather than message transmission," and "instead of social consensus, there emerges hegemony; instead of passive recipients of media messages, there is an active audience; instead of objective media products, there are socially constructed meanings" (Milivojević, 2001: 156). The American experience during the Vietnam War, which called into question the neutrality of the media, significantly influenced this phase marked by critical attitudes toward the media's power to produce socially constructed meanings. In such socio-political circumstances, questions of power relations and conflicts came back into focus. This phase is labeled the phase of long-term effects due to the shift in paradigm regarding the nature of media effects from "a focus on direct, short-term, and specific effects toward continuous, long-lasting, and cumulative impacts" (Ninković Slavnić, 2024: 115). Theories formed in this phase characterize the media as creators of audience perception, i.e., their worldview.

The focus on perception and the *pictures in the head* that the media create certainly indicate a direct link between this phase of media effects research and the theory of observational effects, i.e., the theory of behavioural influence. From the 1960s onward, research has focused precisely on how media change audience perception, and thus, according to the theory of observational effects, also audience behaviour. Research on political perception processes “allows us to understand how people form images of various political entities — images of individual politicians, especially candidates in electoral campaigns, political parties, political institutions, and the state as a whole” (Atlagić, 2020: 9). In the context of creating a “worldview,” it is important to emphasise that “individuals are socialized by linguistically constructed ‘images’ being ‘implanted’ in their heads” (Louw, 2013: 164), as this indicates one of the key ways in which media create audience perception, but also that “any group intending to rule must pay attention to the language used in society” (Atlagić, 2020: 10). When Louw emphasises that in the “worldview” there is a mixture of belief (rational and emotional) and lived experience (actions) (Louw, 2013: 164), he essentially points out the unwarranted strict division between influence on attitudes and influence on behavior, as well as between rational and emotional factors. However, this claim in the context of the theory of observational effects pertains only to the perception-creation phase and does not call into question the premise that perception directly influences behaviour.

The thesis that *worldview*, i.e., perception, is created through socialisation is consistent with the observation that the key theories developed in this phase of media effects research — such as agenda-setting theory, cultivation theory, and social learning theory — are fundamentally learning theories (Ninković Slavnić, 2024). These theories “consider that the media teach the audience what desirable values, behavior patterns, socially relevant events, and people are, and what kind of world we live in” (Ninković Slavnić, 2024). Specifically, the agenda-setting theory, formulated in the late 1960s by McCombs (M. McCombs) and Shaw (D. Shaw), is based on research in which undecided voters expressed which issues they considered key in society, which was then compared with the media coverage of these issues. The research results showed alignment. If these results are compared with Nimmo’s thesis from the same period that electoral campaigns have their greatest effect precisely on undecided voters, it is evident that this research concerns not only media effects but also directly the effects of political marketing. Agenda-setting theory is, in essence, a theory explaining Lippmann’s thesis of *pictures in the head*, indicating that these pictures arise because the media, through their agenda, tell people not only what to think but also what to think about. Agenda-setting theory has several variants but essentially boils down to a scheme in which the media agenda (measured by content analysis) influences the public agenda (measured by opinion polls), which then affects the political agenda (which includes laws, regulations, etc.) (Rogers, 2004: 11). Not all theories from this period will be presented here in detail; agenda-setting theory is provided only as an example of how these theories are oriented toward explaining the ways media create people’s perception, thus influencing their attitudes and behavior through learning, i.e. socialisation processes.

The fourth phase of effects research is also referred to as the phase of the cognitive shift (Ninković Slavnić, 2024). Unlike the third phase, which was dominated by learning theories, this fourth phase focuses on what happens inside the human mind. Chronologically observing the phases of effects research, it could be said that the first phase unconditionally acknowledges the existence of media influence on the human mind; the second phase questions the conditions under which that influence occurs; the third phase investigates how the creation of influence is managed;

and the fourth phase pertains to the direct processes within the human mind during the exertion of influence. Thus, in this phase, the research focus is directed “at the very act of encountering the message and how it is processed” (Ninković Slavnić, 2024: 124). The cognitive shift in this phase signifies a departure from the previously mentioned behavioural code and is characterised by the influence of the development of psychology. The specificity of theories in this phase is that, unlike theories of effects from earlier phases, they proceed from the understanding that whether media influence an individual depends on insight into the process of message processing to which the individual is exposed. The development of psychology initiated this phase; however, the development of affective and cognitive neuroscience enabled a deeper insight into what happens in the human mind during exposure to a certain persuasive message. Three key characteristics of theories emerging in this phase are selectivity, transactional nature, and conditionality. Ninković Slavnić (2024, 124) describes these characteristics as follows: (1) Selectivity means acknowledging that by making choices, individuals partially influence the shaping of their media effects; (2) Transactionality involves abandoning old linear theories of media effects and recognising that certain media preferences lead to specific media choices, which can consequently result in certain media outcomes, which then may further affect choices and media use; and (3) Conditionality explains that media effects may depend on predispositions, situational factors, and social context.

One of the most representative theories of this phase is the Elaboration Likelihood Model of Persuasion (ELM), developed by social psychologists Petty (R. Petty) and Cacioppo (J. Cacioppo). This theory is based on the assumption that there are two routes to persuasion—central and peripheral—and concludes that “people can form or modify their attitudes or judgments by investing varying amounts of thought in the process” (Ninković Slavnić, 2024, 125). The central route involves the individual’s reliance on existing experience and knowledge and engaging in the interpretation and understanding of the information contained in the message. The peripheral route relates to minimal cognitive engagement, with the message being processed through heuristics. Two key factors influencing whether an individual processes a message via the central or peripheral route, apart from emotional state, are “the motivation of the recipient and the ability to process the message” (Ninković Slavnić, 2024: 126). Thus, from the perspective of this theory, motivation emerges as one of the key factors influencing the individual’s reasoning, i.e., how the message is received and responded to.

In addition to developing this theory, which relates not only to persuasion but also to reasoning in general, Cacioppo also analysed the relationship between political psychology and social neuroscience (Cacioppo & Visser, 2003). The cognitive shift in researching the effects of persuasive communication, as it focuses on events within the human mind, naturally integrated knowledge and methods from neuroscience. As early as 2003, Cacioppo highlighted the organic connection between political psychology and social neuroscience, emphasising that neuroscientists investigate what he calls the foundations of neurobehavioral mechanisms, while social scientists recognise ways in which neuroscientific principles and techniques can contribute to more realistic models of the diversity of mechanisms underlying social behaviors (Cacioppo & Visser, 2003). From the approach of Cacioppo, as the author of one of the most influential theories of this fourth phase of effects research, it is clear that neuroscience is organically included in this phase. The significance of motivation in the Elaboration Likelihood Model, as well as the fact that it belongs to the field of neuroscience, certainly places Westen’s research among the studies of the fourth

phase of the cognitive shift, which is still ongoing. Research on motivated reasoning at the level of neuronal activity and direct insight into which brain regions are activated under the influence of the message undoubtedly contributes to a new level of understanding of the human mind.

Table 1 Media effects theories: An overview (Valenberg & Oliver, 2019: 20, adapted from Ninković Slavnić, 2024: 103)

Theory	Authors	Focus/Main Idea
Two-step flow theory	Lazarsfeld et al. (1948)	Media effects are indirect and mediated by personal influence. Opinion leaders play a key role.
Diffusion of innovations	Rogers (1962)	Explains the spread of new ideas and technology
Cultivation theory	Gerbner (1969)	The more time people spend watching TV, the more they perceive of reality.
Knowledge gap theory	Tichenor et al. (1970)	Explains how mass media can increase the knowledge gap between people of high and low socioeconomic status.
Agenda-setting theory	McCombs&Shaw (1972)	Describes how news media influence the prominence and perceived importance of issues among the public.
Uses and gratifications	Katz et al. (1973) Rosengren (1974)	Explains how and why people use specific media to satisfy particular needs.
Spiral of silence theory	Noelle-Neumann (1974)	Examines people's tendency to withhold opinions when they perceive themselves as being in the minority and the role of media in this process.
Media system dependency theory	Ball-Rokeach & DeFleur (1976)	The more a person depends on media to fulfill needs, the more important media becomes and the stronger its effects.
Social learning theory	Bandura (1977, 2009)	Analyzes mechanisms through which media communication affects human thoughts, emotions, and behaviors.

Priming theory	Berkowitz (1984)	Explains how media can activate stored knowledge (and associated emotions and behaviors) in human memory.
Third-person effect	Davison (1983)	Predicts people tend to believe media messages have a greater effect on others than on themselves.
Elaboration Likelihood Model	Petty & Cacioppo (1986)	Explains how media information is processed (via central or peripheral routes) and how this affects attitude formation and change.
Framing theory	Entman (1993) Scheufele (1999)	Media highlight certain issues and place them within a field of meaning, influencing how the audience perceives those issues.
Limited capacity model	Lang, Dhillon&Dong (1995)/Lang (2000)	Analyzes how people's limited capacity to process information affects memory of media messages.

7. Emotions and Cognition

The relationship between cognition and emotions has occupied philosophers and other thinkers throughout the history of studying human behaviour and the ways people react and make decisions. Until the late 20th century, the study of this relationship was characterized by the foundational stance that emotions and cognition are completely separate and were therefore studied independently. As an illustration of the prevailing approach to studying cognition and emotions, Damasio notes that in the earlier stages of his life, it was the dominant opinion that reason and emotions do not mix “any more than oil and water,” and it was widely accepted that reason and emotions were separated both mentally and neurologically (Damasio, 1994). Essentially, the study of the relationship between emotions and cognition was fundamentally based on the assertion that such a relationship did not even exist. Even during the 1970s, when new techniques for studying cognitive processes such as attention, perception, and memory were being developed, emotions were rarely included as subjects of these studies, and the interaction between emotions and cognitive processes began to be researched only in the 1980s (De Houwer & Hermans, 2010). It was only during this period that the first studies on the role of emotions in marketing emerged (Veneziano & Ramsøy, 2011).

This approach also influenced theories on the study of effects, which only in the fourth phase, marked as the cognitive shift, began focusing on occurrences within the human mind and later began connecting cognitive and affective processes. Thus, in the initial phases, theories of effects were primarily focused on the target and types of effects - whether they were directed at attitudes or behavior, and the nature of those effects. However, the cognitive shift, which places emphasis on the occurrences within the human mind - i.e., how the processing of a message in the human mind (psychology), or brain (neuroscience), influences the formation of an effect - shifted the focus of investigation to cognition, and later also to emotions. Although at first glance this may seem like a discontinuity, in political marketing new knowledge provided answers to questions from earlier phases and filled gaps in essentially the same field of study - how individuals make political decisions under the influence of political marketing.

Although neuroscience research provides evidence of the parallel activation of emotions and cognitive processes, even within neuroscience there are separate fields of cognitive and affective neuroscience. However, increasingly, research results dictate that these two fields should be investigated separately only to the extent that knowledge from the separate domains contributes to a better understanding of processes that simultaneously involve the influence of both emotions and cognitive processes. After presenting the phases of effects research that accompanied the development of knowledge from various scientific disciplines (especially psychology and sociology), in the fourth phase, known as the cognitive shift, knowledge from neuroscience is applied. The discovery of the growing importance of emotions in political decision-making within this phase might even raise questions about the appropriateness of calling this phase the cognitive shift, and it is increasingly justifiable to propose the opening of a fifth phase, which would be termed the affective shift.

Tracing the path from political communication as the broadest theoretical framework, through the entire history of political persuasion as one of its functions, we see that the question

of emotions has been addressed since the first systematic approaches to this field in ancient Greece. However, only by the late twentieth century, with the development of psychology and subsequently neuroscience, did the study of political persuasion effects place emotions at the center. The path to the focus on emotions led through the focus on attitudes and then on behaviour. Even Ellul, as one of the founders of the theory of effects on behaviour, said that “modern man does not think about current problems; he feels them” (Ellul, 1965: 47). However, the field of motivated reasoning research, especially the neuroscientific investigations of this mechanism (Westen et al., 2006; Westen, 2007), places emotions and cognitive processes as connected and inseparable at the core of political persuasion research. Westen’s neuroscientific study of the mechanism of motivated reasoning concludes that the political brain is essentially an emotional brain (Westen, 2007), thus confirming theses related to the primacy of the affective (Zajonc, 1980). At the same time, neuroscientific research on motivated reasoning represents a turning point in the previous understanding of affective and cognitive as opposites, positioning them as “two elements functioning in tandem” (McRae, 2022: 19). Therefore, the path to neuroscientific investigation of the mobilisation role of political persuasion through the perspective of the relationship between motivated reasoning and political marketing, naturally follows the previously presented theories of effects on attitudes and behavior and leads to the analysis of emotions as the next logical step. However, emotions here will be analyzed through the prism of their interaction with cognition and their role in cognitive information processing.

7.1 Theories of Emotions

The fact that the history of studying emotions is marked primarily by the absence of consensus about a common foundation on which various definitions of emotions could be based actually points to their key characteristic and a sort of consensus about why it is impossible to establish consensus — the complexity of emotions. This complexity “results in internalised and manifest diversity” (Jović, 2020: 52), which constitutes a key reason not only for the abundance of different definitions but also for the variety of foundations on which those definitions rest. The question “what is emotion” was posed precisely in this form by James (W. James) over 100 years ago, and philosophers have been interested in the nature of emotions since before Socrates (Solomon, 2008). However, a consensus on an answer to this question still does not exist today, and despite various definitions, it remains equally challenging to ask - what are emotions?

Starting from the premise that there are emotions which are expressions of basic instincts and evolutionarily predetermined (Ekman, 2011; Panksepp, 1998), to those that result from more or less complex cognitive processing. Some influence our decisions consciously, while others do so in a way that leads us to believe our decisions are solely expressions of cognitive processing (Westen, 2007). We can also speak of emotions in terms of their intensity - whether they are strong or weak - as well as in terms of their valence - whether they are positive or negative. Additionally, the challenge of establishing consensus on a common foundation for defining emotions is compounded by the fact that different authors label “emotional phenomena” differently — for example, some consider affect or affective processes as broader concepts, seeing emotion as just one of the affective processes, while for others emotion is the broadest term or the “main label” (Kleinigina & Kleinigina, 1981). These are only some aspects of emotions that may serve as

bases for different definitions, and thus far in scientific literature there is no definition encompassing all these foundations. One definition that includes elements and foundations relevant to this research defines emotions “as motivational systems with physiological, behavioral, experiential, and cognitive components. Emotions have a positive or negative valence (that is, feel good or bad) and also vary in intensity, or arousal levels, from mild to strong. They are often precipitated by interpersonal situations or by events that warrant our attention because they affect our well-being” (Brody, 1999: 15).

Although emotions are ubiquitous in human life, it is quite difficult, even in everyday speech, to explain exactly what a person feels under the influence of an emotion. An additional challenge is posed by neuroscientific research showing the activation of brain regions responsible for emotions even when we are unaware that we are under the influence of emotions. However, even though it is often difficult to verbalise and articulate exactly what we feel when influenced by emotions, the universality of emotions and their expressions - regardless of whether this universality is viewed in terms of social learning or evolutionary heritage (Ekman, 2008) - enables us to recognise, feel, and understand different emotional states. Although one often hears that wisdom lies in giving precedence to reason over emotion, the absence of emotions causes just as much harm, since emotions “allow us to make decisions in accordance with a sense of personal future, social conventions, and moral principles” (Damasio, 1994). This argues in favor of a partnership relationship between cognition and emotions, which must also be taken into account when analysing the effects of political marketing. Even if it were possible to make decisions completely excluding emotions, that would not mean those decisions would be more purposeful. This applies to all types of decisions, including political ones.

What is colloquially called “a cool head” (exclusively rational decision-making without involving emotions) always actually involves emotions to some extent - whether we are unaware of them or whether established criteria by which we decide already include emotional relationships. If we decide to support a candidate believing that we reach that conclusion solely through logical reasoning - for example, that their political offer brings economic prosperity - are we truly doing so without involving emotions? Regardless of whether the reason is rational, fulfilling a certain expectation certainly triggers a positive emotion, and vice versa. Moreover, even when we believe that we are making a decision purely rationally, our attitude towards a certain candidate also forms subconsciously through the activation of certain emotions. Factors such as the candidate’s facial expression (Ballew & Todorov, 2007), character (Bishin, Stevens & Wilson, 2006), or even the similarity between our facial features and those of the candidate (Bailenson et al., 2008) can influence our political decision. Behind each of our political decisions ultimately stands a certain motive and activation of emotions in relation to how we interpret the connection between the political message and our motive. In other words, growing research shows that there is actually no “cool head” in political decisions, and that it is “warmed” to some degree, more or less consciously, by emotional activation. However, this does not make our decisions less rational but aligns with the interaction of cognition and emotions. Therefore, to understand how an individual makes political decisions — i.e., the cause and nature of political marketing effects — we must understand the role of emotions in this process. To this end, some theories of emotions will be presented here, divided into philosophical, psychological, and social categories.

7.1.1 Philosophical Theories of Emotions

The precursors to psychological theories are philosophical considerations of the nature and role of emotions, which are as old as the study of human nature itself. However, if we talk about the first systematic considerations of emotions, that beginning is linked to Ancient Greece.

Plato (circa 430–350 BCE) started from the idea that the human soul consists of three parts: reason, will, and appetite. He based this division on the one he applied to the organisation of the state, because he believed that in every person there are structures and character traits similar to those in the state, since “they did not come into the state from some other place” (Plato, 2002: 122). Thus, Plato draws a parallel between his division of the three classes in the state - those who work (engaged in production and crafts), those who defend and serve in the military, and those who govern (the ruling part) - with the tripartite division of the human soul, basing the parallel on the belief that in each of the mentioned parts of society the corresponding part of the soul is dominant. Reason corresponds to the ruling part, will to the part engaged in defense and the military, and appetites to the part engaged in production. Although emotions are not explicitly mentioned in this division, Plato states that “we will call that one thing with which the soul thinks, reason; and that other, by which the soul feels love’s pleasure, hunger, thirst and other appetites, we will call irrational and that which is accompanied by pleasures and satisfactions” (Plato, 2002: 127). Thus, even though emotions are not explicitly named, from these parts it is clear that Plato places emotions in the realm of appetites, or the “irrational,” but he also lays the groundwork even then for distinguishing basic emotions, drives, feelings, etc.

Furthermore, in Plato’s work, we can also see early reflections on what today we would call the relationship between cognition and emotions, when in the context of dividing actions, from which “by some we learn, by others we become angry, and yet by a third we relate to food, reproductive pleasures, and everything akin to them,” he asks whether “perhaps our soul as a whole participates in all those particular impulses” (Plato, 2002: 123). Even then, Plato indicated that this would be “hard to unravel and to depict properly” (Plato, 2002: 123). It is significant to notice that the questions Plato posed more than two millennia ago are essentially the same questions that modern neuroscience attempts to answer in the 21st century, and they align with the questions posed throughout the history of theories on the effects of political persuasion. In any case, Plato calls the field we might equate with the irrational realm “irrational” in *The Republic*, although in his dialogue *Symposium* emotions are also included in reason (Solomon, 2008: 4), where again we see the precursor to reflections on the partnership between cognition and emotions. It is especially interesting that in one part, when speaking about the human soul and particularly its appetitive part, Plato observes that certain characteristics of appetites can also be seen in animals, which is the starting point upon which affective neuroscience was founded at the end of the 20th century.

Aristotle (circa 380–320 BCE) was the first philosopher to directly address emotions, since Plato nowhere explicitly mentions them but only treats fields that we might call emotional. In his work *Rhetoric*, Aristotle defines emotions as those influences that “lead one’s condition to become so transformed that his judgement is affected, and which is accompanied by pleasure and pain” (Solomon, 2008: 5). Aristotle explicitly names emotions such as anger, fear, pity, and their opposites (Solomon, 2008). Besides pointing out in his definition of emotions the existence of emotional valence and their influence on reasoning, Aristotle also noted the physical

manifestations of emotions (Solomon, 2008), which is significant for contemporary research on the mobilisational function of political persuasion through the influence on emotions, as well as for later neuroscientific studies of somatic markers (Damasio, 1994). What is especially significant is that Aristotle noticed that “emotions can have their hues, a finding that had to wait over two thousand years for experimental proof” (Jović, 2020: 55). Regarding the study of the influence of emotions on motivated reasoning, it is important to mention that Aristotle was the first to state the thesis that “emotions provide the impulse for human action through motivation” (Jović, 2020: 55). These are only some of Aristotle’s theses on emotions, which have found their place in contemporary psychological and neuroscientific research and theories. Aristotle devoted special attention to studying the role of emotions in the context of ethical norms, a topic he treated extensively in his work *Nicomachean Ethics*.

During **the Roman Empire**, the issue of emotions was particularly dealt with by the philosopher Seneca and other Stoics, analysing the relationship between emotions and ethics. Whereas Aristotle viewed emotions as necessary for a good life, “the Stoics analyzed emotions as conceptual errors, conducive to misery” (Solomon, 2008: 5), thus aligning more with Plato’s stance that made the key value dichotomy in the parts of the human soul between rational and irrational. According to Solomon, the Stoics believed emotions were judgments about the world and the individual’s position in it, and since “Roman society was neither happy nor rational” at that time (Solomon, 2008: 5), it is not surprising that the Stoics associated emotions with misery and frustrations and considered such reasoning influenced by emotions as erroneous. An important contribution of the Stoic understanding of emotions is their belief in a “higher” reason that can control emotions and that the best life is achieved precisely by the exclusion of emotions. Jović concludes that on some level, through such a thesis, the Stoics were actually “the first to question the idea of emotional regulation, a concept that only appeared in modern psychology and psychotherapy” (Jović, 2020: 55).

In the **Middle Ages**, philosophical reflections on emotions were, as expected, determined by the Christian tradition and teachings, which meant that the question of emotions was primarily linked to the question of morality. Emotions were generally equated with selfish desires, and the qualification of emotions was strongly influenced by the preoccupation of Christian teaching with the phenomenon of sin. Accordingly, emotions, passions, and desires were examined in the context of sin (Solomon, 2008). It is interesting to note that virtues such as love, hope, and faith were not interpreted as emotions. Such virtues, for example in the teachings of Thomas Aquinas, were elevated to a higher level and even equated with reason (Solomon, 2008). Clearly, during the Middle Ages, as well as in the thinking of Roman philosophers, emotions retained a negative value connotation, which was also maintained in the terminological distancing of positive emotions from being identified as emotions at all. Thus, in the Middle Ages, greed was considered an emotion, while love was a virtue.

René Descartes (1596–1650) is a significant philosopher in the context of philosophical theories of emotions, primarily because of his work *The Passions of the Soul* (1649), in which he presents his conception of emotions. Descartes believed that “emotions are not just sensations of our physical body, but the true experiences of our soul” (Jović, 2020: 55). In Descartes’ analysis of emotions, it is crucial that he viewed humans as divided into two parts—soul and body—and defined emotions as a kind of passion, which he described as perceptions, feelings, or passions of

the soul (Solomon, 2008). Although Descartes thought that emotions were responsible for the interaction between mind and body (Solomon, 2008) and that the union of mind and body happens in the brain, as the most complex human organ (Jović, 2020), his basic premise rested on the separation of mind and body. It is precisely on this analysis of Descartes' conception that Damasio, at the end of the 20th century, based his famous Somatic Marker Hypothesis (Damasio, 1994), naming the book in which he published this hypothesis *Descartes' Error*. Damasio saw Descartes' error as precisely the separation of mind and body, proving with neuroscientific methods that mind and body are inseparable. Pointing to human evolution, Damasio also believed that the error is contained in Descartes' famous maxim *Cogito, ergo sum* ("I think, therefore I am"), since humans existed before developing consciousness, i.e., the mind. Although the aforementioned neuroscientific research refers to Descartes' conception as an error, Descartes' contribution to theories of emotions lies also in the fact that contemporary neuroscience tests his premises, regardless of whether it confirms or refutes them.

Baruch Spinoza (1632–1677), like the Stoics, viewed emotions as a form of faulty reasoning about the world and our position in it, and as "a form of "thoughts" that, for the most part, misunderstand the world and consequently make us miserable and frustrated" (Solomon, 2008: 7). Spinoza believed that a person could achieve "bliss" if they adopted the correct attitude toward the world, which for him meant giving up the idea that we can control our lives and instead accepting that man and his mind are parts of God (Solomon, 2008).

Charles Montesquieu (1689–1755) was among the first philosophers to see the positive role of emotions and did not oppose them to reason and Christian virtues but saw them as an integral part of the human spiritual being (Jović, 2020). Thus, unlike most of his predecessors, Montesquieu is the first to propose that emotions can have a positive role in human judgment. In this sense, it can be said that he builds upon Aristotle's conception of emotions, at least in the sense that, unlike Plato, he does not necessarily assign emotions a negative value connotation. In his work *Essay on the Causes of Affective Thoughts and Character* he presents two important theses about emotions—that feelings represent alternative forms of intelligence and that feelings are a superior form of intelligence (Jović, 2020). Among philosophers, Montesquieu was the first to give any kind of primacy or superiority to emotions over reason and thus represents a precursor of what today is called the affective revolution or theories that imply the primacy of affect (Zajonc, 1980). It is important to emphasise that Montesquieu certainly did not speak about the primacy of affect, but his work is the first to mention any aspect of human behavior or thinking that gives preference to emotions, and to explicitly state that emotions can also have a positive impact.

David Hume (1711–1776) was one of the Enlightenment thinkers who opposed the then-prevailing deterministic worldview framed by dogma, church ethics, and Christian teachings. Accordingly, his conception of emotions was expressed in his view that instead of being marginalised, passions deserve "central respect and consideration" (Solomon, 2008: 7). In his work *A Treatise of Human Nature* (1739), Hume placed passions at the center. Hume defined emotions as "a certain kind of sensation, or what he called an 'impression', which (as in Descartes) is physically stimulated by the movement of the 'animal spirits' through the blood" (Solomon, 2008: 7). Solomon points out that Hume acknowledged the essential role of ideas in emotions, which today is called the cognitive dimension of emotions. Another important contribution of Hume's view on emotions is that for him, "emotions represent the essence of human social bonds

that create society, as well as the essence of personal and social morality” (Jović, 2020: 56). In this context, Hume particularly emphasised the importance of empathy. The connection between emotions and morality in Hume’s thought can also be regarded as a precursor to modern neuroscientific research and analyses related to the neurobiological traits of humans in the context of morality (more in Valk, 2012).

Immanuel Kant (1724–1804) also considered the relationship between emotions and reason in the context of morality, but unlike Hume, he believed that ethically correct decisions are only those made under the dominant influence of reason. Kant did not deny the existence of emotions, but for him, “decisions motivated by emotional impulses have no value” (Jović, 2020: 56). However, Kant also recognised the significance of emotions not only in a negative but also in a positive sense, as evidenced by his insistence that “nothing great is ever done without passion” (Solomon, 2008: 8).

In addition to this overview, which chronologically presents key milestones in the history of philosophical thought on the theory of emotions, a brief overview will be provided here of two modern philosophical theories of emotions - philosophical cognitivism and philosophical perceptual theories.

Philosophical cognitivism emerged as a reaction by authors such as Lyons, Nussbaum, and Solomon against the proposal to identify emotions with feelings. These philosophers rely on “a narrow meaning of feeling as the purely phenomenal part of the mental, the part that is not about something and that cannot be captured in representational form” (Moors, 2010: 25). Cognitive philosophers, regarding the intentionality of emotions, assume that emotions are a form of cognition or even equated with cognition, meaning they represent a judgment or evaluation of a stimulus. Judgment within these theories is understood as “mental contents to which one ascribes truth value” (Moors, 2010: 25). One direction within philosophical cognitivism equates cognition and emotion, viewing emotion as evaluation or judgment, while another sees cognition as the cause of emotion. More specifically, this direction holds that the emotion of anger corresponds to the judgment that one will be intentionally harmed, fear to the judgment of being threatened, etc.

Philosophical perceptual theories identify emotions with the perceptual representations of a stimulus (Moors, 2010: 26). Perceptual theorists consider that emotions are not forms of judgment but perception, of what we see regardless of whether we believe it. They claim that “emotions and perception arise automatically” and occur instantly and without intention, and that people “lack control over their emotions in a similar way as they lack control over their perceptions” (Moors, 2010: 26). An example is irrational emotions that can be compared to perceptual illusions - a person may perceive a certain stimulus as dangerous and thereby evoke fear, despite judging that they are not actually in danger. An example of this is irrational fear. However, these theories stem from a narrow understanding of cognition, excluding perceptual representations. In a broader understanding of cognition, these theories can also be classified as a version of philosophical cognitivism.

7.1.2 Psychological theories of emotions

Psychological theories of emotions differ primarily in how they define the origins and causes of emotion activation. Additionally, they vary in which components they identify as part of an emotion. Some theories equate emotions with a single component, such as feelings or cognition, while others consider emotion as a syndrome composed of multiple components like feelings, cognition, motivation, etc. (Moors, 2010).

Charles Darwin is certainly the scientist from whom we should start when discussing theories of emotions, especially when emotions are viewed from a neurophysiological and biological perspective. In his work *The Expression of the Emotions in Man and Animals* (1872), he presented the first evolutionary-biological theory of emotions, “which was based on his idea of survival as a process of selection and learning” (Jović, 2020: 57). Darwin’s work represents a “groundbreaking, revolutionary book in which emotions were studied as a product of evolution, and human emotional expressions as relics of once-useful, adaptive actions” (Trebješanin, 2011: 9). Interestingly, this work was largely ignored for almost a century in academic psychology, only to be revived in light of basic emotions theories (Ekman, 2011) and especially due to the development of neuroscience, particularly affective neuroscience (Panksepp, 1998). In modern psychology, Plutchik was the first to incorporate Darwin’s foundations into the organisational principles of his theory of emotions (Ekman, 1992). Darwin’s approach to studying emotions began to be seen as the bases for the biologization tendencies in social sciences, especially in light of the development and interdisciplinary application of neuroscience. Based on the concept of natural selection and evolution theory, Darwin believed that emotions are inherited from animal ancestors and function to help us adapt more efficiently to our environment and situations. According to Darwin, “emotions in modern humans are therefore caused by ancient parts of our nervous system, according to Darwin, and each emotion has a specific, consistent fingerprint” (Barrett, 2017: 157). As such, emotions according to Darwin are directly linked to instincts and are reflexively activated following a pattern evolution has left in our nervous system.

William James and **Carl Lange** are authors of the first systematically organised theory of emotions at the end of the 19th century. According to James, emotion arises as a consequence of a physiological reaction to a stimulus, meaning that “the stimulus activates the sensory cortex, which directly (or in some unspecified way) elicits peripheral somatic and/or motor responses” (Moors, 2010: 10). According to this theory, emotions are equated with emotional experience and represent the awareness of the body’s physical reaction. For example, if you see something that makes you happy, you start to smile and feel the emotion of happiness. Thus, according to this theory, “physiological reactions are older than emotions” (Jović, 2020: 57). In the given example, it would mean that you are happy because you smile, not that you smile because you are happy.

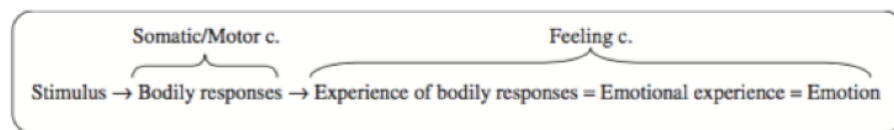


Figure 15 Order of components in James' theory (Moors, 2010: 10)

One of the most influential critiques of the James-Lange theory comes from Cannon (W. Cannon), who empirically criticised the theory because the automatic responses accompanying an emotion are not specific. For example, a racing heart can be accompanied by both fear and happiness. Additionally, the critique pointed out that the same physical manifestations can be triggered without emotion, and that disconnecting peripheral organs from the central nervous system does not eliminate emotions. The key criticism is that the theory equates emotions with the experience of bodily reactions (Moors, 2010: 11). In contrast to the James-Lange theory, Cannon together with Bard proposed a theory according to which the same stimuli simultaneously trigger emotional feelings and bodily reactions (Jović, 2020).

Schachter's theory actually “reconciles” the two previously mentioned theories by integrating the thesis that somatic responses precede emotional experience with Cannon's critique that these responses lack specificity. Schachter's theory is two-step (Moors, 2010) - in the first step, a stimulus produces a certain state of psychological arousal, and in the second step, this “arousal is interpreted in light of the characteristics of that input” (Moors, 2010: 12). This means that we first physically react to a stimulus and then consciously interpret it. The second step of stimulus interpretation represents the cognitive component in Schachter's theory. For example, if we encounter danger, the body will react with an accelerated heartbeat, and the same reaction occurs if we experience a positive surprise. According to Schachter's theory, although the physical reaction is the same in both cases, the conscious processing of the stimulus distinguishes the emotions — in the first case fear, in the second happiness. However, this theory has also faced much criticism, including from Zajonc, who presented evidence that emotions can occur under the influence of subconscious stimuli, that is, stimuli that cannot be consciously processed. This was one of the arguments leading to Zajonc's conclusion that cognition is not necessary for affect (Zajonc, 1980; Moors, 2010).

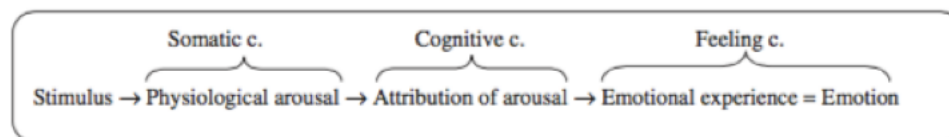


Figure 16 Order of components in Schachter's theory (Moors, 2010: 13)

Appraisal theories retain the premise from Schachter's theory that cognition precedes emotion, but they also incorporate the type of critique offered by Zajonc, such that “cognition is no longer equated with conscious cognition” (Moors, 2010: 13). These theories are also referred to as cognitive because they “rest on assumptions formulated by Aristotle and the Stoics, who regarded emotions as evaluations,” starting from the premise that “each emotion contains cognitive appraisal and belief” (Jović, 2020: 58). The difference from Schachter's theory lies in the sequence of components, namely that in these theories the cognitive component occurs after the stimulus but before the bodily reaction. One of the most influential cognitive theories is that of Richard Lazarus (R. Lazarus), which follows this component order.

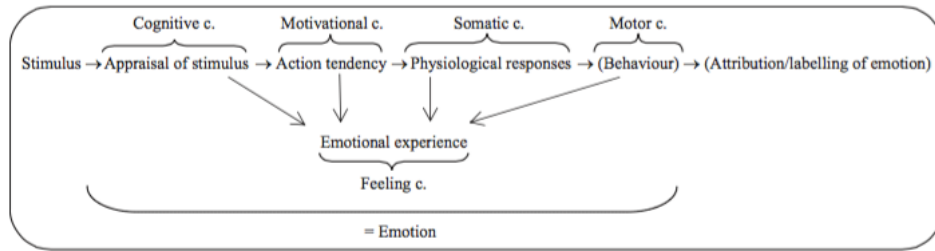


Figure 17 Order of components in appraisal theories (Moors, 2010: 14)

Network theories place memory at the center and start from the premise that there are records of emotions in memory, and that the activation of these records is actually the cause of emotions. According to this theory, emotion is activated as information about the stimulus, action tendencies, responses, conceptual meanings, and emotional experience are encoded in memory (Moors, 2010). Activation of these memory networks is also regarded as a form of the cognitive component.

Affect program theory is based on the hypothesis (Ekman, 1992; 2011; Panksepp, 1998; 1992) that each basic emotion has its unique neural circuit or some other 'neural signature,' and that these neural circuits are "installed by evolution to serve specific adaptational functions" (Moors, 2010: 20). These neural circuits are activated by specific stimuli. This theory is particularly significant for the later development of affective neuroscience, after neurological evidence for the existence of neural circuits linked to specific emotions was obtained using neuroscientific methods (Panksepp, 1998). In addition to such direct evidence, there is also indirect evidence for these neural circuits, such as Ekman's research on facial expressions and proof that these specific emotional responses are universal (Ekman, 2011).

Conceptual act theory, developed by Barrett (L. Feldman Barrett), starts from scepticism about the direct and indirect evidence on which affect program theory is based. Instead of the premise that basic emotions are the building blocks of emotional life, this theory focuses on sub-emotional variables of valence and arousal (Barrett, 2017; Moors, 2010). According to this theory, these variables are considered properties of stimuli and neurophysiological state, but also properties of conscious experience, and the combination of the values of both variables is called the quality of affect. This quality, according to the theory, causes a state in the person called the core affect. Instead of specific emotions, this theory argues there are categories of core affect that are socio-culturally constructed. Barrett's theory is two-factorial - one factor triggers the core affect, and the other factor categorises this core (Moors, 2010). Thus, the key difference from affect program theory is that this emotional experience is linked to socio-cultural construction rather than a biological or natural source. Panksepp (2007) criticised this theory, stating that neurobehavioral data, which this theory does not consider, confirm the existence of distinct basic emotional operational systems in the ancient subcortical region of the brain. He warned that "human emotions researchers should not ignore these systems and simply look at the complex and highly variable culturally molded manifestations of emotions in humans if they wish to determine what kind of "natural" emotional processes exist within all mammalian brain" (Panksepp, 2007: 281).

7.1.3 Sociological theories of emotions

Sociological theories of emotions proceed from the premise that to understand the role of emotions in society in general, and especially in social relationships, it is insufficient to observe emotions solely from a biological perspective. Besides the biological basis, emotions certainly have a social aspect. This broader interpretation of the role of emotions is particularly significant in the context of research on emotions in the field of political marketing, i.e., political communication. Certainly, for example, neuroscience provides deeper knowledge and insights into the biological and neurophysiological aspects of emotions. However, that knowledge is of little help if we do not also consider other aspects of emotions that relate to the context in which we examine their role - in this case, the context of political persuasion. Sociological theories that study emotions while considering their social aspect, in the field of political communication or political persuasion, may offer more of a guideline for systematizing political theories of emotions than be directly applicable in political communication. Still, to understand how biological and psychological aspects of emotions fit into a broader context, it is necessary to provide a brief overview of basic sociological theories of emotions.

When Le Bon (G. Le Bon) analysed crowd behaviour in his 1895 work *The Crowd: A Study of the Popular Mind*, although not explicitly, he also argued that the influence of emotions that arises in a specific way when people find themselves in a crowd. He explains that “only their feelings, and never their reason, appeal to speakers who are skilled at making an impression on them” and “that to convince crowds about anything, one must first take care of the feelings that enthuse them... constantly stirring up the feelings we want to provoke” (Le Bon, 2018: 92-93). Not only do these words of Le Bon coincide with the results of contemporary neuroscientific research in political persuasion, but they also explicitly include a social aspect, as they refer to the influence of emotions in specific social relationships—between individuals in a crowd. In sociological theories of emotions, emotions are actually observed with a focus on their component related to social relations. Considering this component, we must also consider “to what extent this is socially shaped in the dialectical relationship between human behaviour and social structure” (Powel & Gilbert, 2008: 396). If we observe emotions in the context of social relations, we can say they occur on three levels: “(a) at the level of personal interaction (individuals with individuals), (b) at the level of collective-group interaction (states, peoples, classes, institutions), and (c) at the level of cultural interaction (long-term socio-cultural patterns such as matriarchy or patriarchy)” (Jović, 2020: 59).

According to Turner (Jonathan H. Turner) and Stets (Jan E. Stets), sociological theories can be divided as follows (2006):

1. Dramaturgical theories emphasise that individuals' actions are guided by a “cultural script” relating to “ideologies, norms and rules, logics, vocabularies, and implicit stocks of knowledge about which feelings should be experienced and expressed in episodes of face-to-face interaction” (Turner & Stets, 2006: 26).
2. According to this theory, actors are actually in the role of performers on a stage playing roles dictated by culture. Thus, culture plays a key role in emotions. Negative emotions in this theory are linked to situations where individuals step out of their assigned roles. The

theory also posits that individuals maintain some flexibility in their role performance, including the ability to manipulate by feigning certain feelings to meet audience expectations. This may refer, for example, to facial expressions that should show a particular feeling even if the individual does not actually feel it at that moment. In political marketing, this could apply to a situation where a candidate smiles and greets gathered supporters. Regardless of how he feels at that moment, his facial expressions and body movements play the role of showing positive feelings and gratitude to the gathered supporters.

3. Symbolic interaction theory adopts from dramaturgical theory, or the cultural script theory, the premise that an individual expresses emotions in relation to the role played in a given environment, but it also focuses on the question of personal identity. This theory “starts from the idea that our emotional system depends on the experience of our personal identity, i.e., self-identity” (Jović, 2020: 60). Symbolic interaction theory links emotions to how the environment relates to what we perceive as personal identity. In circumstances where our identity is denied, the following behavioral activities are triggered as emotional responses: “(a) change behavior to obtain confirming responses from others, (b) seek to convince others to accept the behaviour and the meaning it implies, and thus confirm self, and (c) withdraw from situations in which self is not confirmed” (Turner & Stets, 2006: 30).
4. Interaction ritual theories start from the premise that emotions arise in interaction with the environment through ritual actions. These theories are based on Durkheim’s (E. Durkheim) analyses of ritual behavior of Australian Aborigines—particularly how they developed totems symbolizing the strength of gods. Rituals relate to communities in which each individual participating in the ritual addresses the same meaning assigned to it and accordingly experiences an emotional experience. Modern societies also have their rituals, which apply to political marketing. Thus, every election campaign implies certain rituals—e.g., chanting campaign slogans at a rally. Rituals are also very pronounced in totalitarian propaganda and represent heuristics of political persuasion primarily aimed at provoking strong emotions in participants of the ritual. “A distinctive feature of ritual emotions is their collective character, which means they occur in communal sessions” (Jović, 2020: 60). In the mentioned field of propaganda, one example is the ritual Nazi salute of the gathered masses celebrating the leader.
5. Theories of power and status are based on the position that when individuals have or gain power, they feel positive emotions such as satisfaction and confidence, while losing power causes negative emotions such as anxiety, anger, or fear (Stets & Turner, 2008). The attitude towards power and status influences different emotions, which are not only about gaining or losing power but also about the circumstances in which it happens. For example, if you lose power or status due to your mistake, this leads to emotions of shame and sadness; if it happens due to others, then to emotions of anger or contempt.
6. Exchange theories view people’s emotions through the prism of their motivation to gain rewards and benefits and avoid punishment or harm. These theories see emotions as the result of a kind of trade-off or calculation of whether the reward outweighs the costs. Furthermore, these theories consider that “emotional reactions that occur during exchanges

also depend on other aspects, for example, whether it is competition or cooperation or whether the exchanges are close or distant” (Jović, 2020: 61).

7.2 Types of Emotions

The classifications of emotions in psychology are based on various criteria, with one of the fundamental distinctions being between basic emotions and complex emotions. Basic emotions represent an evolutionary heritage, appearing early during ontogenesis, common to all humans (and even higher animals), and universal across all cultures (Ekman, 1992; Trebješanin, 2011). What is also crucial for the concept of basic emotions is that they possess an organic basis. The organic foundation of basic emotions is significant for the study of emotions in the field of neuroscience through the application of neuroscientific methods. Complex emotions are constructed from basic emotions and are therefore more complex to study, especially in the context of applying neuroscientific methods. If we assume that each basic emotion has its characteristic neural signature (Panksepp, 1998), by examining the neural activity of the brain we can determine which basic emotion is activated. However, this becomes much more difficult, almost impossible, in the case of complex emotions that are composed of multiple basic emotions. One of the main characteristics of basic emotions is that there is no “overlap” between different emotions, whereas this does occur in the case of complex emotions (Thamm, 2006). Jović (2020) compares the relationship between basic and complex emotions to the relationship between primary (basic) and secondary (derived) colors, stating that all derived colors are obtained by mixing different combinations of primary colors. Psychologists who accept the existence of basic emotions agree that their number is small and limited; however, there is disagreement about how many there are and which emotions are basic. According to McDougall (W. McDougall), “the basic emotions are anger, disgust, joy, and fear (associated with instincts), according to Watson (J. Watson) they are fear, anger, love (innate reactions to unconditional stimuli)” (Trebješanin, 2011: 20), while according to Ekman (1992) and many other contemporary psychologists, they are anger, fear, surprise, disgust, contempt, sadness, and joy.

One of the criteria for categorising emotions is valence, which relates to whether the emotions evoke a positive or negative feeling. Additionally, emotions are also divided according to the degree of arousal, which relates to the intensity of the feeling evoked by a particular emotion. Thus, emotions can share the same valence but differ in intensity. One example of this is happiness and satisfaction - although they share the same valence (positive feeling), “the emotion of happiness arouses a higher degree of arousal than the emotion of satisfaction” (Jović, 2020: 62). Furthermore, there are emotions that lack valence, meaning they cannot be determined outside of context as emotions that evoke positive or negative feelings. An example of such an emotion is anger, which in different circumstances can produce both negative and positive experiences. The division of emotions into positive and negative is significant for emotion research in neuroscience, given that studies have shown different hemispheres of the brain are responsible for positive and negative emotions - “left frontal regions are generally more involved in processing positive feelings that motivate approach towards objects in the environment, whereas right frontal regions are more related to negative emotions that motivate avoidance or withdrawal” (Burton, Westen &

Kowalski, 2019: 180). Thus, the division of emotions into positive and negative also has its organic basis.

In the context of the influence of emotions on processes of interpretation, evaluation, reasoning, and decision-making, emotions can be divided into incidental or random emotions and integral or deliberate emotions. These processes represent “cognitive tools we use to form a coherent representation of the world, anticipate what may be coming next, and make choices about courses of action” (Blanchette & Richards, 2010: 277). In this division, we are essentially discussing the influence of emotions on multiple levels of cognition, which will be elaborated on later. In this section, we remain focused on mentioning higher-level cognitive processes only in the context of the criteria for classifying emotions in relation to the type of influence they exert on these processes. It is important to note that incidental and integral emotions belong to immediate emotions in the classification dividing emotions into expected and immediate. Expected emotions are those “we anticipate will occur as a result of an outcome related to our choice,” while immediate emotions are “experienced at the moment of choice” (Jović, 2020: 63). Thus, incidental and integral emotions belong to those activated at the very moment of choice, or decision-making.

Incidental emotions are those not directly elicited by a stimulus related to the decision-making process, i.e., they are not directly related to the performance of a specific task (task-related). The affect produced by these emotions, therefore, is not directly related to the content processed by the participants. Examples of eliciting these emotions include situations where mood is manipulated by, for instance, showing participants a video with sad content or playing sad music, after which they make decisions about various neutral events (Blanchette & Richards, 2010). Therefore, although the elicitation of these emotions is not carried out by a stimulus directly related to performing a specific cognitive task (such as decision-making, choice, or evaluation), they exert influence on the individual situationally, and under that influence, the individual performs the cognitive task. For this reason, they are also called ‘incidental’ because their source is not connected to the very decision that must be made (Jović, 2020: 63). Besides ambient or situational factors influencing the activation of incidental emotions, they also include emotions that we experience chronically, such as anxiety. An anxious person evaluating a particular political message does so not only under the influence of emotions evoked by the content of the message but also under the influence of anxiety, which is their chronic condition.

Unlike incidental or random emotions, integral emotions are elicited by a stimulus directly related to the cognitive task we perform. In the case of integral or deliberate emotions, the emotional state results from the content presented in the cognitive task (Blanchette & Richards, 2010: 277). If participants are asked to make an evaluation, interpretation, or decision about content that directly elicits emotions, they do so under the influence of integral emotions. If participants are asked to assess conditions in children’s hospitals and are shown photographs of poor conditions, it is expected that the emotion of sadness will be evoked in them. In that case, this will be an integral emotion, given that the stimulus for that emotion is directly found in the content related to the cognitive task they are performing. However, if an individual makes a decision about content that is emotionally neutral but with sad music is playing in the background, the emotion of sadness they will feel will be incidental, because the stimulus for eliciting the emotion of sadness is not directly in the content to which they are performing a specific cognitive task. Some authors consider that task-related emotions “refer to emotional responses arising from the very nature of

tasks or the process of making evaluations” (Jović, 2020: 63). In the case of introducing task-related emotions into the classification, a distinction should be made between emotions arising from the very nature of the task, while in the case of incidental and integral emotions, the difference lies in whether the stimulus is present in the content directly related to the task. Thus, in all three cases, the difference is made concerning the task, but in terms of its different aspects.

7.3 Emotional episode

One of the reasons for the abundance of definitions of *emotion* is that individual definitions foreground different components of what, in fact, constitutes an emotional episode. Put differently, the complexity of emotion - and, consequently, the difficulty of reaching a consensus on a common definitional core - stems from the fact that it is composed of several components. Therefore, when one examines the internal structure of emotion, it is more accurate to speak of an emotional episode. Very briefly, an emotional episode refers to everything that happens while a given emotion is being activated. It encompasses all elements that make up the structure of an emotion and spans the entire sequence—from the initial stimulus to the final components or immediate consequences of that emotion (Moors, 2010).

Moors (2010) argues that the notion of an *emotional episode* is in fact broader than the notion of *emotion* itself. He distinguishes the following components: (a) a cognitive component; (b) a feeling component, i.e. the phenomenal experience of the emotion; (c) a motivational component, consisting of action tendencies or states of readiness for action; (d) a somatic component, consisting of central and peripheral physiological reactions; and (e) a motor component, encompassing expressive behaviours such as vocal and facial expressions. According to Moors (2010), these components fulfil the following functions: (a) stimulus appraisal; (b) monitoring—which may serve regulation and control; (c) preparation and support of action; and (d) the execution of the action itself. The term *cognitive component* can, in its broadest sense, be understood as any mental process; yet, when contrasted with other mental constructs such as *motivation* or *feeling*, it is used in a narrower sense, limited to dynamic qualities that those other processes do not possess. Thus, relative to motivation, cognition is treated as a non-dynamic mental representation; and when compared with feeling, it is conceived—philosophically—as the intentional aspect of mind, or, more broadly, as conscious experience.

<i>Components</i>	<i>Functions</i>
Cognitive	Stimulus evaluation/appraisal
Feeling	Monitoring → regulation
Motivational } Somatic } Motor }	Preparation and support of action
	Action

Figure 18 Examples of components and corresponding functions (Moors, 2010: 2)

In the field of neuroscience research on emotions, a distinction is made between feelings and emotions, with the distinction not being based on the assumption that feeling is considered a component of emotions, but rather that feelings are placed in the domain of the conscious, while emotions are placed in the domain of the unconscious and are biologically and evolutionarily determined (Damasio, 2000). Damasio (2000) argues that an individual does not have to be aware of all the emotions occurring in their body, regardless of being aware of the feelings they experience. In the context of examining the mobilising role of political persuasion and the role of emotions in that process under the influence of the activation of the motivated reasoning mechanism, the analysis of emotion components is of particular importance in the context of the motivational component. The fact that the motivational component, as well as the action itself, can be considered as parts of the structure of emotion, i.e., the emotional episode, clearly speaks to the organic link between the influence of emotions and motives in the context of their impact on behavior, that is, action. Ekman distinguishes between emotions and moods based on the duration of the emotional episode. According to him, “an emotional episode may be short, sometimes lasting only a few seconds, and sometimes much longer, but if it lasts for hours then it is a mood” (Ekman, 2011: 294).

Researchers conceptualise the structure of emotions in different ways, and the presented model of emotional episode components is only one of them. Jović (2020) states that contemporary researchers consider that emotions consist of four key components:

(1) **Subjective**, which refers to how each individual experiences a stimulus from their environment in relation to their own perception and personal psychological characteristics. Not all stimuli provoke the same emotions in all people - what causes fear in some may cause anger in others. Acknowledging the subjective component of emotions is crucial for understanding different reactions among people. This also applies to the field of political persuasion. Not all people will perceive a political message in the same way, and therefore, one of the key factors for successful political marketing is knowing the target group being addressed and tailoring the message to the characteristics of that group.

(2) **Cognitive**, which refers to the way individuals process information from the environment and translate it into meaningful interpretations and emotional reactions, and the role of the cognitive system is to “evaluate reality and give it meaning” (Jović, 2020: 64). As already stated, the cognitive component of the emotional episode is responsible for translating the stimulus into representations, and in this sense, cognition can be understood both broadly and narrowly. This is particularly important in relation to the cognitive, motivational, and affective components.

(3) **Physiological**, which refers to the physiological reactions of our body. Although physically visible reactions under the influence of certain emotions (such as sweating, increased heart rate, changes in breathing, etc.) are the result of the activity of the peripheral nervous system, the key physiological reactions actually come from the central nervous system, i.e., the brain. The development of neuroscientific methods has provided new knowledge about this component of the structure of emotions, which has been put in the service of better understanding all other components as well. Direct insight into brain function has not only provided new explanations for the physiological reactions of the body but also for the ways in which neural activity influences cognition and, more generally, our behavior under a given stimulus. In the field of political

persuasion, these studies are especially important in the area of examining the role of emotions in the effects of political persuasion, as this field has historically represented the greatest unknown. In this sense, neuroscience provides answers that replace what were previously speculative assumptions and the application of knowledge and systematised practical experience.

(4) **Behavioural**, which refers to behaviour resulting from the influence of emotions. Jović concludes that it is precisely the behavioral component that makes the key difference between emotions and thoughts, because if emotions did not have their behavioral expressions, we would have no way to distinguish them from our thoughts (Jović, 2020). The behavioral component relates to the previously mentioned components of action readiness and action from the model that presents the components of the emotional episode. Thus, behavior, movement, action are parts of the very structure of emotion, which is especially important in the context of studying the influence of emotions on the mobilising role of political persuasion, i.e., the influence on behavior. The connection between emotions and behavior is interpreted through an evolutionary perspective, pointing out that there are evolutionarily grounded connections between certain stimuli, emotions, and behavior. Evolutionary theorists see emotion as a powerful source of motivation, or “internal communication that something must be done” (Burton, Westen & Kowalski, 2019: 678). Within these theories, the undertaken actions are associated with behavior aimed primarily at survival or reproduction. However, if we start from the premise that complex emotions are composed of combinations of basic emotions that are evolutionarily determined, we come to the conclusion that taking action is directly related to the activation of each emotion. After all, the very etymology of the word emotion derives from the Latin word *movere*, meaning *to move*.

Stimulus event	Emotion	Behaviour
Threat	Fear, terror, anxiety	Fight, flight
Obstacle	Anger, rage	Biting, hitting
Potential mate	Joy, ecstasy, excitement	Courtship, mating
Loss of valued person	Sadness, grief	Crying for help
Group member	Acceptance, trust	Grooming, sharing
New territory	Anticipation	Examining, mapping
Sudden novel object	Surprise	Stopping, attending

Figure 19 Evolutionary links between emotion and behaviour in humans and other animals (adapted from Plutchik (1979) in Burton, Westen & Kowalski, 2019: 679)

7.4 Affective Processing

Robert Zajonc (R. B. Zajonc) was invited in 1979 to deliver a lecture on the occasion of receiving an award from the American Psychological Association. In that lecture, Zajonc presented a then-revolutionary thesis that affective reactions do not necessarily rely on prior cognitive processing. Based on the theses presented in that lecture, the following year Zajonc (1980)

published an article entitled *Preferences Need No Inferences*, in which he introduced affective processing and the theoretical model of affective primacy. Until that time, the prevailing belief was that affect could not be activated without the preceding cognitive processing of information. The title of his article captures the essence of what he calls the primacy of affect (Zajonc, 1980) - *preferences need no inferences* essentially means that affect does not require cognition. The primacy of affect, first introduced by Zajonc, transformed not only the study of emotion-driven reactions but also established new foundations for analysing the relationship between affective and cognitive domains.

Affective processing can be defined as "the mental act of evaluating the affective properties of a stimulus," and affective reactions as those reactions that are "caused by the outcome of affective processing, that is, by the affective properties of stimuli as evaluated by the organism" (Houwer & Hermans, 2010: 39). Zajonc formulated the hypothesis of affective primacy based on experimental evidence. The results of one of his experiments showed that reliable affective discriminations (judgments of whether we like something or not) can occur even in the complete absence of cognition (Zajonc, 1980). He examined various judgments based on affect and those based on perceptual and cognitive processing. Experimental evidence confirms that affect and cognition are controlled by different and mutually independent systems that influence each other in various ways, while jointly representing independent sources of information processing effects (Zajonc, 1980). At the same time, however, theories emerged that refuted the hypothesis of affective primacy. One of them is the cognitive theory of emotion, which argues that no emotion can arise without a prior, even unconscious, cognitive evaluation, and that the affective response is always a result of how the individual evaluates the stimulus (Lazarus, 1982).

The hypothesis of affective primacy and the overall concept of affective processing had their impact in the field of political persuasion and political marketing. It was during this same period - the 1980s - that the role of emotions in marketing began to be taken more seriously (Veneziano & Ramsoy, 2011), including how emotions influence voters' political choices. Research on the role of emotions, aligned with the new approach that considers affective processing independently from cognition, also influenced the study of attitude change—especially relevant to the field of political persuasion and decision-making. Specifically, the assumption is that attitudes and preferences differ significantly depending on their origin. Accordingly, a distinction is made between preferences acquired in childhood and those resulting from social learning through habits, familiarisation, encouragement of certain preferences by the social environment, and so forth. Additionally, a distinction is made regarding preferences that are directly caused by persuasion. Zajonc and Markus (Zajonc & Markus, 1982) offer the example that a newborn in Mexico does not initially prefer spicy food; however, growing up in an environment where spicy food is part of the traditional cuisine, most of them develop such a preference. Thus, that kind of preference is not innate, but neither is it a product of persuasion—it results from social learning (although social learning itself can also be considered persuasive in nature). Later preferences, for example, regarding specific car brands, are rooted in cognitive structures. Based on the findings of such studies, to change an attitude that is primarily grounded in affective sources, different methods must be applied compared to attitudes based on cognitive sources (Zajonc & Marcus, 1982). In the case of attitudes grounded in affective sources, it is necessary to "attack on the affective basis of preferences" (Zajonc & Markus, 1982: 127). In other words, Zajonc and Markus emphasize that changing attitudes requires a careful examination of

both affective and cognitive elements of the attitude in order to identify the affective elements, as these are ultimately the ones that must be changed.

The applications of this concept are visible daily in both political and commercial marketing. Commercial products, just like political candidates, are promoted with the intention of eliciting an affective reaction. Thus, in a TV spot during an election campaign, not only is the candidate and his message shown, but also the environment in which he delivers that message, which appeals to certain emotions, regardless of whether it has a direct connection with the message itself. The same case applies to commercial marketing – the advertised beverage is shown, but also the smile of those who consume it in the advertisement; a whiskey brand is advertised with sexual imagery or a car with scenes appealing to the emotion of excitement (Zajonc & Marcus, 1982). Therefore, the findings that cognitive processing is separate from affective, as well as that attitude change occurs predominantly through emotion change, have been reflected in the field of marketing through careful selection of message elements to provoke an affective reaction aimed at directing the cognitive processing of the information in the message.

In the field of political persuasion, it is possible to draw a parallel between Zajonc's hypothesis of the primacy of affect and his position that affect may precede cognitive processing, and Ellul's thesis about the irrational entry into action of individuals under the influence of propaganda. Zajonc's thesis that it is possible to activate independent affective processing before cognitive activation can support Ellul's thesis on possible influence on behaviour through irrational means, without prior influence on the attitudes and beliefs of the individual. Furthermore, Zajonc's observation that affective processing is possible even in complete absence of cognition is consistent with Ellul's interpretation that the influence on behaviour under the effect of propaganda not only precedes the influence on attitudes and beliefs, but that change in attitudes and beliefs may not occur at all. In other words, there is justification for drawing a parallel between what in Ellul's view may be labeled as the primacy of the irrational in behavioural influence and Zajonc's primacy of affect. The hypothesis of the primacy of affect is also consistent with the results of Westen's experiment (Westen et al., 2006), which point to the crucial role of emotion during the activation of motivated reasoning, i.e., cognitive processing. Westen's observation that change in political attitudes occurs under the influence of motivated reasoning due to change in emotion, not information, is consistent with the findings of studies which show that when an attitude has affective sources, the change occurs through affect, i.e., emotion (regardless of the presence of a cognitively-based component of the attitude). Among these three theses, developed in different periods and domains (political communication, psychology, and neuroscience), it is possible to identify a connecting thread in such a way that each successive one complements the previous. Drawing such a thread is consistent with Ellul's view that successful propaganda must be aligned with the development of science.

Arguments in support of Zajonc's hypothesis of the primacy of affect can, according to Houwer and Hermans, be grouped into four categories (Houwer & Hermans, 2010):

The first group of arguments refers to how we, as human beings, experience affective reactions at the phenomenological level. This pertains to the fact that affective reactions are mostly instantaneous and occur beyond our will or control. In everyday life, we are faced with situations in which we react affectively regardless of our decision or even our judgment as to whether such

a reaction is appropriate or desirable. Even when we are aware that we should not have a particular affective reaction, we often cannot stop it. In addition, an important aspect of affective reaction is that “people may doubt their beliefs, but they will never doubt their feelings” (Houwer & Hermans, 2010: 39). Translated into the field of political persuasion, this aspect of affective reaction would mean that it is much easier to convince an individual to change their opinion about a political offer than the feelings that the offer provokes in them, because they do not doubt those feelings. However, if this view is applied to Ellul’s thesis that successful propaganda is not focused on changing attitudes and beliefs, we arrive at the question of whether this particular characteristic of affective reaction (and the primacy of affect) may offer part of the explanation for the inefficiency of electoral campaigns, which Nimmo analyzes from the perspective of dominant influence on attitudes (Nimmo, 1970). That is, can the hypothesis of the primacy of affect also be viewed through the analysis of the low efficiency of political campaigns focused on attitude change and Ellul’s thesis on the effectiveness of propaganda that leads to behavioral change through irrational means? When Ellul in this context says that modern man does not think, but feels (Ellul, 1965), one may say that, in a way, nearly two decades before Zajonc, he suggested the thesis of the primacy of affect in the field of political persuasion.

The second group of arguments refers to behavioural data that Zajonc claims support his hypothesis of the primacy of affect (Zajonc, 1980). He relies on results of studies indicating that the more people are exposed to a given stimulus, the more positive feelings they develop towards it. However, what is particularly significant as an argument for the possibility of affective processing without cognitive presence is the finding that such effects occur even when the stimulus is presented so briefly that the individual is not even aware of it.

The third group of arguments concerns neurological evidence. Zajonc (1980) points to studies suggesting that affective reactions are more dependent on activity in the right hemisphere of the brain, while cognitive reactions are more associated with the left hemisphere. This argument is used by Zajonc to support the claim that affective and cognitive processing are physiologically separate.

Finally, the fourth group of arguments is evolutionary in nature, given that Zajonc argues that affect precedes the development of language and thought both phylogenetically and ontogenetically. As evidence, he cites that affect is present in newborns and lower organisms that do not possess a developed capacity for speech or thought. He also uses as an argument the fact that the limbic system, responsible for affective responses, developed long before the cortex, which is responsible for cognitive abilities. One of the evolutionary arguments is also the adaptive function of affect. When an individual is confronted with immediate danger to which they must respond right away, the speed of affective reaction allows them to respond immediately (to flee or to fight), before engaging in assessment as a result of cognitive processing.

When discussing affective processing in the context of Zajonc’s primacy-of-affect hypothesis, it is important to note that affect conceived in this way actually shares many characteristics with automatic processes. Some of these characteristics, according to Houwer and Hermans, are as follows - affective processing occurs when participants: “(1) are unaware of the stimulus that is processed affectively; (2) are unaware of why they like or dislike ; (3) are engaged in other effortful tasks and thus have little mental resources available for the affective processing

of the stimulus; (4) have little time to process the stimulus affectively; (5) do not have the conscious goal to process the stimulus affectively; or (6) do not have the conscious goal to evaluate other stimuli (Houwer & Hermans, 2010: 46). However, affective processing is not completely unconditional—for example, “the presence of a goal to process non-affective features of a stimulus seems to reduce the probability of affective processing” (Houwer & Hermans, 2010: 46), and the presence of automatic affective processing depends on the properties of the stimulus and of the individual.

In addition to Zajonc’s primacy-of-affect model (Zajonc, 1980), one example of a theoretical model of affective processing is Fazio’s so-called MODE model (Fazio, 1990; Fazio & Olson, 2003), and the name MODE is an acronym of motivation and opportunity as key determinants that decide whether an automatic affective reaction will occur, or whether cognitive processing will also be engaged (Fazio & Olson, 2003). The faster and more reflexive the responses are, i.e., the less cognitive processing and motivation are present, the more behavior and reactions will be conditioned by automatic affective reactions, which are based on previous experiences and associations. Studies show that affective features of a stimulus can be processed within a few hundred milliseconds after exposure to the stimulus, which the individual may not even be aware of (Houwer & Hermans, 2010). Ekman points out that “emotions can often begin very suddenly, so suddenly that our conscious self does not participate and may not even perceive what triggers the emotion in our mind at any given moment” (Ekman, 2011: 32). In experiments with so-called evaluative priming (Fazio et al., 1986) participants were subliminally (presented so quickly that they did not consciously perceive them) shown words with positive or negative meaning, after which they were exposed to a neutral stimulus. The results showed that they reacted to the neutral stimulus under the influence of the previously presented stimulus, which they were not aware of. Fazio, based on the results of such experiments, arrived at conclusions similar to Zajonc—that affective reactions can occur in the absence of cognition, that emotional preferences can be activated implicitly, and that such reactions can have a strong influence on behavior. According to Fazio’s model, an individual under the influence of affective processing may react very quickly to a stimulus based on a previously formed attitude. Thus, a political message as a stimulus, in relation to previously formed attitudes toward the properties that the stimulus has (source of the message, topic it relates to, etc.), activates an affective reaction that influences further cognitive processing of the message.

7. 5 Measure of Emotions

Systematic study of the influence of emotions in the field of political marketing and political decision-making only began in the 1980s, and over the past few decades, the development of methodologies for measuring emotions in respondents exposed to political marketing stimuli has followed the advancement of science and technology across various fields. Until then, the dominant view was that individuals make political decisions rationally, relying on the premises of rational choice theory, and that emotions are primarily the consequence of prior cognitive processing (Lazarus, 1982). In contemporary political marketing, the examination of how people make political decisions and respond to the products of political marketing no longer entails only questions related to the rational reasons behind their choices, but also questions such as how they

feel, what emotions a given content evokes in them, what precisely caused those emotions, how they influence their attitudes or behavior, and so forth. An increasing number of scholars are focusing on the study of emotional influence, considering emotions to occupy a central place in the way individuals process information contained in political messages (Marcus, Neuman & MacKuen, 2000; Brader, 2006; Westen, 2007; Lodge & Taber, 2013; Damasio, 1994).

However, despite the broad consensus on the significance of emotions in political decision-making, there is equally strong agreement that emotions are difficult to measure directly. This is especially true for measuring affect activation at the unconscious level, which represents a particularly important aspect of political decision-making, as research has shown that people unconsciously process a vast amount of information very rapidly and implicitly, drawing from both their external environment and their own memory, experiences, and so on. Furthermore, it is almost impossible to precisely distinguish which part of an explicit reaction originates from a cognitive source and which from an affective one. Although most theories concerning the role of emotions in response to a stimulus recognise the difference between cognitive and affective processing, and although neuroscience methods can determine their physiological separation, social sciences “are not well prepared to understand this duality of cognition, and political sciences is no exception” (Lodge & Taber, 2013: 1). An example of the complexity of studying the relationship between cognitive and affective reactions is that an individual may be aware that an emotion has been triggered by the activation of a particular memory, yet even in such cases, political behavior and attitudes may function under unconscious mechanisms that govern memory accessibility (Lodge & Taber, 2013).

There are various methods by which the influence of emotions on political decision-making can nevertheless be examined, although these are more or less about obtaining indirect data which, in combination with other data, point more toward a certain emotion than precisely detecting that emotion, its source, and the manner in which it influenced the cognitive processing of information. It is not difficult to recognise whether a person is happy or sad by observing whether they are smiling or crying. Similarly, tone of voice or body language provides additional information about the respondent's emotional state. The application of neuroscience methods offers closer insight into what causes a particular state, while biometric data reveal somatic indicators of the activation of a given emotion. However, it is almost impossible to obtain completely precise information about which exact emotion was activated, what triggered it, and how it will affect the processing of a specific piece of information. Nevertheless, the systematisation of a vast number of studies in this field has produced certain theoretical frameworks based on which the influence of specific emotions on political decision-making can be interpreted. Thus, the theoretical framework of Affective Intelligence Theory (AIT) offers one model for understanding the role of emotions in political decision-making. According to research findings within this theory, emotions such as enthusiasm and anxiety activate different cognitive processes and information processing strategies (Marcus et al., 2000). According to this theory, enthusiasm encourages automated and routine forms of political behavior, whereas anxiety increases attention and readiness to learn new information. On the other hand, some authors focus on the role of so-called emotional cues in the content of political messages and their influence on audience emotional reactions (Gross & D'Ambrosio, 2004). Therefore, approaches to measuring emotions also differ depending on what is being measured (which specific emotional response), how the relationship between affective

and cognitive is conceptualised, which method is used, and through which theoretical framework the measurement results are interpreted.

Two dominant theoretical approaches in the study of emotions are the dimensional and the discrete model. The dimensional approach involves measuring valence (whether the emotion is positive or negative) and arousal (the intensity of the emotional state), and whether the state motivates the individual to approach the stimulus or to avoid it (Davidson, 1999; Lang, Bradley & Cuthbert, 1997; Russell & Barret, 1999; Schneirla, 1959; Watson, Wiese, Vaidya & Tellegen, 1999 – as cited in Mauss & Robinson, 2010: 99). Discrete models (Ekman, 1992) identify basic emotions such as fear, anger, sadness, joy, etc. In addition, measuring emotions also involves the selection of components of the emotional reaction to be measured. The figure below shows one of the models around which there is broad consensus, and which involves measuring the following components of the emotional response – subjective experience, the peripheral and autonomic nervous system, the central nervous system, and behaviour.

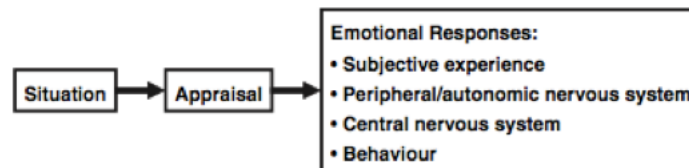


Figure 20 A consensual component model of emotional responding (Mauss & Robinson, 2010: 100)

The following section will present an overview of the basic methods for measuring emotions in relation to which component previously indicated they refer to and which aspect of the emotional state they measure.

Table 2 An overview of response systems, measures, and emotional states to which they are sensitive (Mauss & Robinson, 2010: 101)

<i>Response system</i>	<i>Measure</i>	<i>Sensitivity</i>
Subjective experience	Self-report	Valence and arousal
Peripheral physiology (ANS)	Autonomic nervous system (ANS) measures	Valence and arousal
Affect-modulated startle	Startle response magnitude	Valence, particularly at high levels of arousal
Central physiology (CNS)	EEG	Approach and avoidance
Behaviour	fMRI, PET	Approach and avoidance
	Vocal characteristics: Amplitude, pitch	Arousal
	Facial behaviour: Observer ratings	Valence; some emotion specificity
	Facial behaviour: EMG	Valence
	Whole body behaviour: Observer ratings	Some emotion specificity

Self-report or **self-assessments** are methods such as questionnaires and interviews that enable respondents to explicitly express their emotional feelings. This method is the most common and accessible way of measuring emotions in political research, but it has significant limitations, which is why it is increasingly used in combination with other methods. The name of this method itself indicates that respondents report on their own emotional state. In addition to reporting which emotion they felt, respondents rate the intensity of the emotion they experience using scales. Some examples of such scales include the so-called Likert scales, PANAS (*Positive and Negative Affect Schedule*), as well as specific emotion scales used in affective intelligence research (Marcus, Neuman & MacKuen, 2000). Self-report methods of emotional state measurement also differ in whether the respondent reports on their emotions in relation to an experience or stimulus to which they were exposed in the past or at the moment of reporting (so-called “online”). The basic limitation of this method relates to individual differences in respondents’ awareness of the emotions they feel, as well as their willingness to honestly disclose their emotions (Mauss & Robinson, 2010). One key reason for respondents’ reluctance to honestly disclose their emotions is their assessment of the social desirability of what they feel. A respondent may, for example, have positive feelings toward a political option but may feel that expressing this publicly would harm them. Likewise, a respondent may feel an emotion toward a stimulus that they judge to be inappropriate in the context of social norms and in such cases will often choose to report that they feel an emotion they consider more socially desirable. Thus, the self-assessment method involves not only the evaluation of the emotional state but also the evaluation of the social desirability of reporting that state. However, even when a respondent does not provide an honest answer about what they feel, the data, in combination with data obtained through other methods, is significant in political marketing effects research, because it provides insight into what the respondent thinks they should feel. Moreover, such data are important for analyzing the difference between self-report and data obtained through other methods in the context of emotions the respondent is not aware of.

The ANS (autonomic nervous system) measurement method pertains to measuring the reactions of the physiological system responsible for managing peripheral functions. One limitation of this method is that it is difficult to separate reactions caused by emotion from those caused by other autonomic nervous system functions. The most common application of this method relates to measuring electrodermal (e.g., degree of sweating) or cardiovascular (e.g., blood pressure or pulse) reactions.

Measurement of the startle-response magnitude is a type of psychophysiological method involving measuring the type and intensity of the body's automatic reaction to a sudden stimulus (e.g., a loud sound) and is most commonly used as an indicator of emotional arousal. One of the most common behavioral indicators of the so-called startle reflex is the eyeblink, and this measurement procedure typically involves using EMG (electromyography), which measures muscle activity around the eye using electrodes (Mauss & Robinson, 2010).

Brain activity measurements for the purpose of measuring emotions rely on neuroscience knowledge and methods that connect certain neural activities in the brain to certain emotional states and reactions. Later, methods used for this purpose will be discussed in more detail. In this section, only two applied methods of measuring direct brain activity will be mentioned, which involve the use of EEG (electroencephalography) and fMRI (functional magnetic resonance imaging). These methods allow unique aspects of emotion measurement, such as precise detection of the intensity and source of emotional response, temporal mapping of emotional response, separation of cognitive and affective processing, identification of neural correlates of emotions, etc. Each of these methods has its own limitations and advantages compared to others. For example, functional magnetic resonance imaging provides high spatial resolution and enables precise mapping of brain regions that are activated, which is why researchers consider this method more appropriate than EEG for identifying the specificity of emotions in the brain (Panksepp, 1998). On the other hand, EEG provides high temporal resolution, which cannot be achieved using fMRI. Simply put, fMRI shows which part of the brain is activated but not the precise time of activation, while EEG does not provide information on which brain region beneath the cortex is activated, but provides data on the reaction to a stimulus in real time, i.e., at the moment of exposure to the stimulus. An example of the use of fMRI technology (also known as neuroimaging) is Westen's (2007) application of this method in an experiment whose results showed that exposure to political messages in respondents leads to activation of brain areas associated with emotions (the limbic system), rather than exclusively centers responsible for rational thinking (prefrontal cortex).

Behavioral methods of measuring emotions in the study of political marketing effects and motivated reasoning constitute a significant method for discovering respondents' implicit emotional reactions and their actual behavior. Even Darwin pointed out that emotions serve an evolutionary communication function, as does behavior that reveals an individual's emotional state to others (Ekman, 1992). An example of a basic emotion reflected in behavior is, for instance, fleeing under the fear emotion. According to theoretical approaches based on such premises, conclusions about an individual's emotional state can be made based on voice characteristics, facial expressions, and whole-body behavior (Mauss & Robinson, 2010). Behavioral methods of measuring emotions are often used in the field of political marketing effects research. An example of such use is the analysis of speech and voice – changes in speech speed, tone, and intonation can

reflect emotional states such as anxiety, anger, or enthusiasm. This method is particularly applicable in the analysis of politicians' speeches, as well as during analysis of discourse in focus groups or interviews (Scherer, 2003). Cicero already pointed out that vocal acoustics indicate emotional state. Darwin's observation that vocal acoustics not only indicate a speaker's emotional state but can also influence the emotional state of listeners is especially significant (Bachrowski & Owren, 2003). There are numerous studies in political marketing and political communication research in general that rely on measuring emotions based on analysis of facial expressions. For example, Ekman's thesis on the universality of facial emotional expressions acknowledges diversity relative to a person's culture, but attributes those differences to social learning rather than to different biological bases (Ekman, 2011). The universality of facial expressions among humans (especially within the same culture) enables us to identify which emotion an individual feels when exposed to a political marketing stimulus (e.g., whether watching a political TV spot elicited surprise, happiness, or anger). However, it is necessary to take into account the mentioned effects of social learning that may "dictate that we suppress, exaggerate, completely conceal, or mask the expression of the emotion we feel" (Ekman, 2011: 40).

7.6 Brain Regions Involved in Emotional Processing

Research in the field of neuroscience has provided new insights into which parts of the brain are involved in emotional processing, as well as which neural activities of the brain indicate emotion activation. The neuroscientific search for what is referred to in this field as the emotional brain (LeDoux & Phelps, 2008; Westen, 2007) is certainly far from over, but it has already progressed enough that neuroscientific methods can be used with greater reliability to examine the influence of emotions on the individual. In the field of political marketing, this primarily refers to investigations into how emotions influence political decision-making and what role emotions play in reactions to a political message as a stimulus. Prior to the development of neuroscientific methods, most of the data obtained about the emotional state and response of participants were based on self-report and behavioural methods. However, it was only with the advancement of neuroscience that we gained direct insight into the so-called emotional networks in the brain (LeDoux & Phelps, 2008), that is, into the activity of neural networks during emotion activation. Based on all the systematised knowledge to date about the functions of specific parts of the brain, these methods provide information not only about what a participant thinks they feel or how they are willing to report their feelings, but also about which part of the brain is activated (fMRI) or how the neural network of the entire cerebral cortex functions (EEG).

An emotional signal begins with an appraisal, and that appraisal may be conscious or unconscious. However, the transition from appraisal to emotion is always unconscious (Johnson-Laird & Oatley, 2008). In other words, we cannot choose whether we will feel happiness or fear. The reason for this lies in the fact that our emotions are "a primitive sort of unconscious reasoning that manifests itself not in propositions, but in simple signals" (Johnson-Laird & Oatley, 2008: 104). Thus, in the case of the influence of emotions on our political decision-making due to exposure to a certain stimulus, we may be aware of both the signal and the appraisal, i.e., through introspection we may be conscious of how we feel, but not of the very transition from appraisal to emotion. Neuroscientific methods applied in the field of examining the influence of emotions at the moment of stimulus exposure provide information that a participant could not express through self-report - not only because they might not always be willing to answer honestly for various

reasons, but also because there are aspects of the influence of emotions on their decision that they are not even aware of.

Before presenting the brain regions involved in emotional processing, it is necessary to refer to the process by which a stimulus from the environment is transformed into an emotional reaction. This process involves four phases (Jović, 2020: 67):

- (1) Appraisal of the emotional content of the stimulus,
- (2) Emotion initiation,
- (3) Emotion execution,
- (4) Emotional state.

The understanding of how the brain functions has radically changed over the past 120 years. As an illustration of that change, it is worth mentioning that at the end of the 19th century, James (W. James) believed that emotion was a function of the sensory and motor areas of the neocortex and that the brain did not possess a specific system responsible for emotional functions (LeDoux & Phelps, 2008). However, as early as 1937, Papez (J. W. Papez) proposed his theory (1937), which represents one of the earliest and most influential neuroanatomically based theories of emotion. This circuit theory of emotion posits that emotions have a clear neural foundation and are the result of specific interactions among structures within the brain. According to Papez, the emotional response arises in a circuit composed of several brain structures integrated in a closed loop that begins with the hippocampal formation and ends in the cingulate gyrus (including brain structures such as the hippocampus, mammillary bodies, anterior thalamic nucleus, etc.). More than a decade later, MacLean (P. MacLean) added additional structures to Papez's circuit (such as the amygdala and orbitofrontal cortex) and named this system the limbic system (1952). The interaction of different parts of the limbic system allows humans to process impulses from the environment, filter them, and transform them into positive or negative emotions (Burton, Westen & Kowalski, 2019). For many years, it was believed that this model resolved the question of the anatomical basis of the mechanism in the brain responsible for emotions; however, in the 1980s, studies emerged suggesting that this model was not sufficiently precise at the structural and functional levels (LeDoux & Phelps, 2008). Nonetheless, despite certain imprecisions, identifying the limbic system and its connection to emotions has made it possible to gain insight—through neuroscientific methods—into brain responses related to the activation of emotions. The neural connections among different brain areas and, more broadly, the identification of all brain areas activated during emotional states represent an extremely complex field. This section presents only a basic description of some of the key brain regions involved in emotional processing.

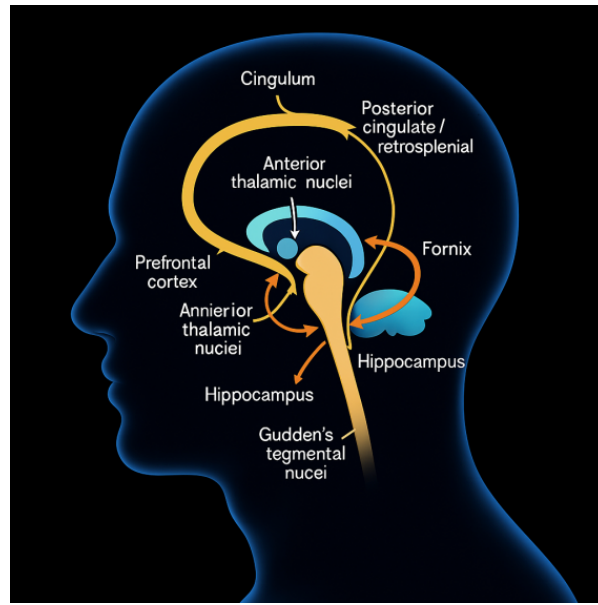


Figure 21 Papaz circuit

The brain is divided into four lobes – the frontal (*lobus frontalis*), parietal (*lobus parietalis*), occipital (*lobus occipitalis*), and temporal (*lobus temporalis*) lobe. It is considered that “the frontal lobe is thought to be the locus of planning, cognitive control and integration of cross-brain input. Parietal areas govern motor action. The occipital lobe is where visual processing occurs. The temporal lobes are important for memory, recognition and emotion.” (Camerer, Loewenstein & Prelec, 2004: 558–559). A more detailed description of the main functions of the different brain lobes—as well as the position of all four lobes—is shown in the figure 22.

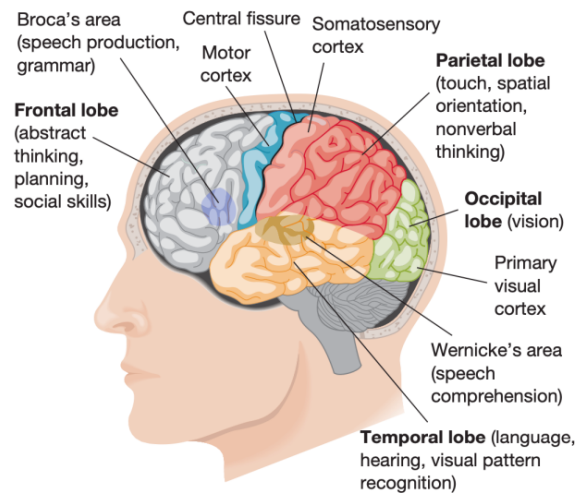


Figure 22 The lobes of cerebral cortex (Burton, Westen & Kowalski, 2019: 170)

The **frontal lobe** – Studies investigating the case of Phineas Gage, an American railroad worker who survived a brain injury in 1848 (see Damasio, 1994), “paved the way for the notion that the frontal lobes were linked to judgment, decision-making, social conduct, and personality” (Bechara & Damasio, 2005: 337). However, the frontal lobe is also involved in emotional decision-making. Through the study of patients with brain damage similar to Gage’s, Damasio concluded that they all exhibit similar difficulties in emotional decision-making. In one case, a patient spent more than thirty minutes trying to decide on the optimal date and time for his next appointment—instead of receiving an emotional signal that such a decision was not worth so much time and energy, he continued to evaluate every possible alternative (Westen, 2007; Damasio, 1994). Such studies have contributed to a better understanding of the role of the frontal lobe in the influence of emotions on decision-making. As mentioned earlier, it is considered that “the frontal lobe is the locus of planning, cognitive control, and the integration of cross-brain input” (Camerer, Loewenstein & Prelec, 2004: 559).

The **cortex** is the outer layer of the brain composed of a densely packed layer of cells known as *grey matter*, beneath which lies a layer of axons connecting these neurons—called white matter (Franks, 2006). The cortex plays “an important sensory, motor, and associative role, and is particularly significant with regard to memory, attention, problem-solving, and language” (Jović, 2020: 68). In the cortex, stimulus analysis takes place primarily through the interpretation of meaning, before the emotional response occurs. Of particular importance is the **cingulate cortex**, whose anterior part is involved in emotion, while the posterior part is associated with cognitive processes (Franks, 2006: 46). The examination of cortical activity through neuroscientific methods also provides information about the valence of activated emotions, since studies show that increased activity in the left hemisphere is associated with positive emotions, and in the right hemisphere with negative ones (Burton, Westen & Kowalski, 2019: 180; Franks, 2006: 44).

It is important to mention the **prefrontal cortex**, especially its parts—the dorsolateral prefrontal cortex and the ventromedial prefrontal cortex. The **dorsolateral prefrontal cortex** is activated during conscious choices and is responsible for maintaining information in working memory (such as phone numbers), and Westen calls it “frontal reasoning circuits” (Westen, 2007:61), as it is engaged when we consciously think or evaluate evidence. In contrast, the **ventromedial prefrontal cortex** is “involved in emotional experience, social and emotional intelligence, and moral functioning (Westen, 2008: 61). It plays a key role in linking thoughts and emotions, particularly in the influence of emotional reactions on decision-making, which is why Westen calls it “the frontal emotion circuits” (Westen, 2007: 61). The **ventromedial prefrontal cortex** is crucial in establishing the link between emotion and political decision-making—it connects prior feelings associated with the current stimulus and thereby generates what we refer to as a “gut feeling” (Lodge & Taber, 2013: 45). In this way, it unconsciously stimulates approach or avoidance behaviors. In the context of political marketing, the activation of the ventromedial cortex indicates its role in mobilisation and persuasion. The process by which, in a social situation, the ventromedial cortex connects the current situation with previous experiences and emotional contexts is referred to as the “body loop” (Bechara, Damasio & Damasio, 2000).

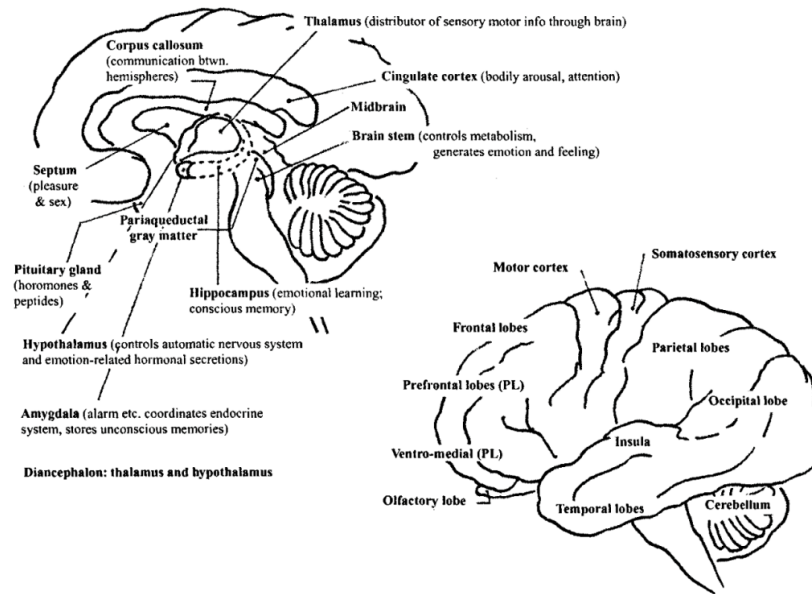


Figure 23 Emotions - related structures in the brain (Franks, 2006: 46)

The insula is the part of the brain into which neural maps from the entire body are transmitted during emotional experiences, having previously been relayed to specific nuclei of the thalamus (Franks, 2006: 47). The insula is located deep within the folds of the temporal lobe and represents a somatosensory region of the brain. Given that neural maps from the entire body are transmitted to this part of the brain, the insula may be described as a sort of transformer for somatic signals from the body into subjective feelings of emotion and emotional experience. It “enables self-reflection and understanding of what is happening around us and how we emotionally react to those events” (Jović, 2020: 69).

The amygdala is an almond-shaped structure in the brain that, despite its relatively small volume, possesses a highly complex structure and is implicated in complex functions, especially within the domain of emotion. The most important function of the amygdala is to provide warnings, thus constituting “a specific alarm system that detects dangers in the environment and controls the initiation of fear and fright” (Jović, 2020: 69). These functions of the amygdala can be related to claims grounded in evolutionary theory, suggesting that primitive humans possessed emotions (such as fear) which played an adaptive role in relation to the environment even before cognition had developed. The experiments conducted by LeDoux (J. LeDoux) on the role of the amygdala became a cornerstone of emotion research from a neuroscience perspective. His findings suggest not only that an individual need not be aware of the cause of an emotion, but also that emotions themselves—including their behavioral consequences—can be triggered before conscious awareness is activated (Clore & Ortony, as cited in Lane & Nadel, 2000: 42). This is why the amygdala is crucial for understanding unconscious human reactions. Another significant function of the amygdala lies in its role in recognising emotions in other people, which makes it important not only for emotional intelligence but also for social intelligence.

The hippocampus is part of the limbic system and is implicated in the mnemonic storage of new information so that we can later consciously retrieve it. In other words, the hippocampus

represents a kind of working memory of the brain. The function of the hippocampus is closely associated with that of the amygdala, as it processes stimuli at the moment the individual is exposed to them and enables the connection between memory and feeling. Franks describes the role of the hippocampus as one of “memory consolidation” (Franks, 2006: 48), arguing that memories are distributed into an episode composed of many parts, such that recalling one part often leads to the recall of other parts. If we can say that the amygdala consolidates unconscious feelings—which often emerge as “sudden recollections” - then we may say that the hippocampus stores our conscious memories (Jović, 2020: 70). Damage to the hippocampus results in the inability to form new memories. For instance, a patient who had to have his hippocampus removed due to epileptic seizures would reintroduce himself to his doctor at each appointment. The same patient could not remember the information that his mother had passed away, but each time he was told, he failed to respond as would be expected of someone hearing such information for the first time (see more in Burton, Westen & Kowalski, 2019: 166), which indicates that there are certain types of memory that do not involve the hippocampus.

The thalamus is a part of the diencephalon that plays an important role in directing sensory information from the peripheral parts of the body to the cortex. Jović (N. Jović) refers to the hypothalamus as a *gatekeeper* because it “receives information, processes it, and draws conclusions about its nature, that is, it prioritizes it according to importance” (Jović, 2020: 70). Thus, the thalamus is important because it performs the selection of information and stimuli, which it then transmits further to the cortex. The thalamus affects the response to stimuli by selecting them, thereby actually determining what will be responded to at all.

The hypothalamus is, like the thalamus, a part of the diencephalon. The key role of the hypothalamus lies in the regulation of emotions and drives (such as hunger, thirst, sexual drive, aggression, etc.), and although it makes up only 0.3% of the total weight of the brain, this tiny structure regulates behavior from eating and sleeping to sexual activities and emotional experiences (Burton, Westen & Kowalski, 2019: 162). The hypothalamus is also important for the regulation of chemical and hormonal reactions, which are relevant for emotional responses. One of its key functions is maintaining the body's balance (homeostasis), so when the body is in some kind of imbalance, that information reaches the hypothalamus, which then, in an effort to restore balance, reacts by releasing the necessary hormones into the bloodstream (Jović, 2020).

In order to examine the influence of emotions on the individual, it is extremely important to understand that different parts of the brain have different functions, as well as to understand how different parts of the brain influence our emotional state. However, that is not enough, because none of these brain parts operates independently of the others. Knowing that the amygdala has a key role in processing the emotion of fear does not mean that merely observing the amygdala will reveal everything about a person's emotional reaction when exposed to a stimulus that causes fear. However, insight into its activity will certainly provide key guidelines for further analysis of the reaction and diagnosis of the cause and background of that reaction. This is why Westen reminds us that when analyzing different parts of the brain, it is always important to recall that “virtually every mental act is a symphony, with which each activated ‘section’ contributing its own tone and timbre” (Westen, 2007: 60). He states that no brain structure has only one function and that the more neuroscientists study the brain, the more they recognize that every mental act occurs through

the activation and coordination of circuits across the brain, from the more primitive circuits of the brain mass to those in the frontal lobe, which were the last to evolve.

The development of neuroscientific methods, which will be discussed in more detail later, has offered us valuable data in the field of examining the effects of political marketing, but these methods certainly cannot replace traditional methods—they are rather a very important supplement to them. In other words, neuroscience offers us irreplaceable data, but not a substitute for the data we obtain using other methods. This refers to the uniqueness of the insights we gain through the application of neuroscientific methods, but also to their limited usability without a broader context of analysis and data obtained through other methods. It is true that no other method can offer us data, for example, about which part of the brain is activated and in what way at the moment when an individual watches a pre-election TV spot. But in order to fully understand their reaction, we also need some other data, such as which political option they support. An image from magnetic resonance imaging or EEG results shows the brain's reaction at that moment, but the relationship between the stimulus and the participant has a much broader and more complex context than the moment of exposure to the stimulus. Moreover, it is important to keep in mind that the knowledge about the functioning of the parts of the brain, as well as of its overall (symphonic) operation, is a journey on which science has come a long way in a short time, but which is still ongoing and marked by a large number of unknowns, assumptions, and debates over different interpretations.

7.7 Categorization of Emotional Stimuli

In order to successfully respond to the challenge of the abundance of stimuli we receive from the environment, it is necessary to carry out some kind of mental organisation of all those stimuli, based on which we then select which stimuli to process, how, and whether to process them at all. The challenge of the abundance of stimuli to which we are constantly exposed does not refer solely to the overall environment, but is present even when our attention is focused on just a part of that environment. Let us take, for example, watching a campaign TV spot. Even if the author intended to highlight one or several key stimuli, while watching the spot, you do not hear only the words spoken by the candidate, but also notice their facial expressions, tone of voice, surroundings, colour palette, background music, etc. Even if we isolate just one of these aspects as a stimulus, within each there are various characteristics that influence the way we react to that stimulus.

In addition, it is important to consider how an external stimulus is transformed into our internal mental representation. Thus, we do not actually react directly to the stimulus, but rather to our mental representation of that stimulus. Any object as it exists in the external environment is called a distal stimulus, but we process that stimulus as it is represented in our organism as a physical simulation in the sensory schema—that is, as a proximal stimulus. Perception, in fact, represents the transformation of the proximal stimulus into a percept—an accessible, subjective experience that we can describe and which takes the form of activating a specific category in our mind (Brosch, Pourtois & Sander, 2010: 66). We then evaluate the stimulus based on information we associate with that category, and such categorisation is highly significant for the cognitive processing of information about the stimulus, thereby constituting the basis for assigning meaning to everything in our environment. Therefore, when we see the suit a candidate is wearing in a

campaign TV spot (distal stimulus), that image is represented in our organism as a pattern of light in our eye (proximal stimulus), and only then is that representation transformed into an accessible subjective image we can describe (percept), which is automatically categorised in our mind, invoking all the information we associate with the category into which we placed the candidate's attire. Only thus categorized does the stimulus become something we react to, in accordance with our attitude toward the category we assigned to that stimulus. Categorisation of stimuli is of exceptional importance because it largely influences how we perceive the world around us. Furthermore, when we categorize a stimulus, we group certain objects or concepts as equivalent or analogous, thereby reducing the complexity of information from the external world (Brosch, Pourtois & Sander, 2010: 66).

Stimulus categorisation, therefore, represents a kind of cognitive economy—once a stimulus is categorized, all relevant information related to the category into which the stimulus is placed is automatically retrieved, while differences between categories deemed insignificant are simply ignored. Thus, categorization functions as a filter, reducing the vast amount of information we receive from the environment by treating information placed into the same category as equivalent. Stimulus categorization is performed according to various principles or criteria, one of which is whether or not the stimulus elicits an emotional reaction. And this brings us to the question—what is it that causes a stimulus to be perceived or categorized as "emotional"? The answer to this question varies depending on the theory of emotion being referenced. Most theories of emotion assume that “emotional stimuli represent a special type of stimulus as they possess high relevance for the survival and well-being of the observer” (Brosch, Pourtois & Sander, 2010: 71). According to these theories, reactions to emotional stimuli are, in fact, adaptive responses, and they involve not only changes in subjective feelings, but also in bodily responses, as they prepare the organism for action.

Frijda (N.H. Frijda) argues that the primary phenomenon associated with emotion is readiness for action, which tends to override all other aspects, goals, considerations of appropriateness, long-term consequences, and so forth (2007). He gives the example of a person in love who, due to the emotion they are experiencing, might neglect their obligations, or situations in which people, regardless of circumstances, begin to cry or shout. Frijda refers to this as the *closure* of emotions, which arises not because the connections between an emotional stimulus and the response to that stimulus are pre-established (as in the case of reflexes), but because this closed form is simply the mode of operation of emotions. This closure does not mean that emotions are impermeable to information, but that they are impermeable to information that is irrelevant or incompatible with their goal (Frijda, 2007: 16). The characteristic that a state of action readiness under the influence of an emotional stimulus directs all resources necessary to achieve the goal is, according to Frijda, what defines emotions as passion, and he states that when readiness for action reaches a high enough level - the “point of no return” - the action is carried out (Frijda, 2007: 16). When Ellul describes an individual who, under the influence of propaganda, acts irrationally, and notes that this initiation of action is not determined by choice but by the urge to release a reflex (Ellul, 1965), a parallel can be drawn with the way Frijda describes what he calls the closedness of emotions, that is, the response to an emotional stimulus. In relation to this parallel, one might conclude that, according to the criterion of orthopraxy, which Ellul proposes, the effect of propaganda (or political marketing) depends on the successful positioning of an emotional

stimulus that will instinctively lead the individual to action, while rendering them immune to all information that is not aligned with their goal.

The categorisation of emotional stimuli, therefore, is not merely a matter of the cognitive economy of the individual responding to the stimulus; rather, for the creator of the stimulus, understanding how a specific emotional stimulus is categorised by a particular target group enables them to manage that group's readiness for action, that is, to direct their behavior. An example of this would be the depiction of scenes during the March Pogrom in which a cross is broken on an Orthodox church during a call to protest. Knowing the categorisation held by the target group being called to take to the streets implies that the sender of the message understands that this group categorises the emotional stimulus as an attack on our citizens and on national sovereignty, and that such categorization is associated with readiness for defense and public protest—readiness for action. The way such footage is presented makes the difference between simply conveying information and managing an emotional stimulus to activate readiness for action in line with all the information that categorization automatically invokes and that shapes the perception of those exposed to the stimulus. If we connect this to the aforementioned dismissal of all information inconsistent with the desired goal (in this case, participation in the protest), we come to direct parallels between the effects of emotional stimuli and the essence of motivated reasoning. An individual who has already crossed the “point of no return” in terms of readiness for action will be immune to all information suggesting they should change their opinion, no matter how true or logical that information may be.

According to basic emotion theory, perceptual processing of emotional stimuli is primarily organised through categories that are universally present as an evolutionary inheritance in all human beings (Ekman, 1992; Panksepp, 1998). In contrast, appraisal theories maintain that categorization occurs based on the subjective assessment of stimuli, while dimensional emotion theories place categorisation within the context of distinguishing between positive and negative emotions, which are reflected in two motivational systems that guide approach or avoidance behaviours (Brosch, Pourtois & Sander, 2010). Thus, each theory of emotion interprets the cause and nature of emotional stimulus categorization differently, depending on how it defines emotions.

In addition to different categories, there are also various types of emotional stimuli. An emotional stimulus can appear in the form of words, images, facial expressions, video material, and the like. However, the question arises as to what criteria determine which type of material carrying the emotional stimulus is appropriate to use in a given situation. One possible model that assists in making decisions about how to present an emotional stimulus is the Emotion Matrix Model proposed by Gruen (D. Gruen) and Sharifan (N. Sharifan) (2016). A brief overview of this model is relevant because it includes five key characteristics of emotional stimuli. The first characteristic is ecological validity, which refers to how similar the emotional reaction is to a real emotional experience in everyday life. This pertains to contextual information based on which we assess how to respond to a specific stimulus. The second characteristic is temporal resolution, which refers to the amount of time required to process an emotional stimulus. High temporal resolution relates to a stimulus that can be processed quickly, while low temporal resolution refers to a stimulus that requires more processing time. The longer the processing time, the more contextual information is needed for the stimulus to acquire meaning. The third characteristic is controllability and concerns how difficult it is to control the stimulus under experimental

conditions. The fourth characteristic is complexity, referring to how complex the type of emotional stimulus is—low complexity implies that the stimulus has only a few aspects, whereas high complexity refers to a stimulus with multiple aspects. Typically, the higher the complexity of the stimulus, the lower the controllability. Finally, the fifth characteristic is emotional intensity, which relates to how intense the emotional response elicited by the stimulus is.

Given that people typically associate emotional stimuli, either consciously or unconsciously, with survival or well-being, it is evident that this type of stimulus significantly influences individuals. As previously mentioned, these stimuli usually require rapid behavioral responses, and their categorization enables the organism to quickly process a multitude of environmental information by selecting data relevant to current needs and goals. Numerous research findings indicate that individuals respond much more quickly to emotional than to neutral stimuli (Brosch, Pourtois & Sander, 2010), which helps explain why this type of stimulus is used in influencing attitudes and behavior in the domain of political marketing. If studies show that a person with a phobia of snakes, when shown an image featuring both a snake and a spider, will first notice the snake, such psychological findings are applicable to the field of political marketing. Accordingly, the more deeply one understands how a target group categorises specific emotional stimuli, the greater the potential to manage individuals' reactions under the influence of political messages—that is, to effectively transform political information in the message into emotional stimuli. Political messages that appeal to emotional responses will attract significantly more attention and provoke faster reactions than emotionally neutral messages. In the context of the previous example, if one aims to appeal to the emotion of fear, it is essential, therefore, to know whether the target group addressed by the political message "fears the snake or the spider" more.

7.8 The Influence of Emotions on Higher Levels of Cognition

Until just a few decades ago, higher levels of cognitive processes were studied entirely separately from affective systems, as it was believed that they were immune to the influence of emotions. This approach stemmed from philosophical perspectives on the study of human nature, based on the dichotomy between reason and emotion, as previously discussed. Only recently have approaches emerged that examine the dynamic interaction between basic and complex processes, between cognitive and affective variables, and between subcortical and cortical regions of the brain (Blanchette & Richards, 2010: 276). The tendency to study the relationship between cognition and emotion - rather than exploring them as separate systems - has certainly been reflected in the field of political marketing research. In studies of the relationship between cognition and emotion within political marketing, emotions are examined not only as behavioral triggers for voters but also in terms of how they profoundly permeate various levels of cognitive information processing and thus shape the way individuals perceive, interpret, and reason about political messages. Understanding this relationship - and acknowledging its existence - is crucial for explaining phenomena such as motivated reasoning, polarisation, and the long-term effects of political marketing.

In the study of the influence of emotions on higher levels of cognition, it is necessary to begin with the question of whether such an influence exists at all, and then explore which

mechanisms underlie it, and whether the effect is the same for all emotions or differs from one emotion to another. In seeking answers to these questions, researchers focus on four key cognitive processes: interpretation, judgment, decision-making, and reasoning (Blanchette & Richards, 2010: 276). These four cognitive processes are also the most relevant for examining how individuals process political messages - how they interpret them, how they form judgments about them, how they make decisions, and how they reason about the message content. The selection of these processes is based on the view that these are the very cognitive processes that enable us to navigate a complex world, serving as tools we use to construct a coherent representation of reality, anticipate what is to come, and make choices about courses of action (Blanchette & Richards, 2010: 276–277). Blanchette (I. Blanchette) and Richards (A. Richards) define these cognitive processes as follows:

- Interpretation is the process through which meaning is derived from ambiguous or polysemous information in order to build a mental representation.
- Judgment is the process by which individuals consider and evaluate evidence and assess the likelihood of different outcomes.
- Decision-making refers to how people choose among multiple options, with a particular focus on how individuals select or avoid options associated with varying levels of risk.
- Reasoning is the process by which participants use available information to draw conclusions. (Blanchette & Richards, 2010: 277).

There is a wealth of research examining the effects of different emotions and dimensions of emotions on each of these cognitive processes. Moreover, these studies differ in terms of the levels of analysis they apply. The aim here is not to provide a comprehensive overview of all these studies—an impossible task given the expansion of this research—but rather to highlight the existence of such research and the fact that most results point to (a) the existence of an emotional influence and (b) variations in that influence depending on the type of emotion activated, the manner in which it is activated, and the context of its activation. It is also important at this point to emphasize that these cognitive processes are key to analyzing the influence of emotions in the domain of political marketing effects and the cognitive processing of political messages under emotional influence. However, when discussing the impact of emotions in processing political messages, it is important to reiterate that this influence may exist even without exposure to an emotional stimulus, as a neutral stimulus may also trigger emotions in an individual. Furthermore, emotional activation can occur both consciously and unconsciously, which is why the application of neuroscientific methods in researching the effects of political marketing is becoming increasingly important.

Some researchers conceptualise the relationship between emotion and cognition by viewing emotions as the initial layer of cognitive processing—they direct attention and determine which information will be selectively noticed or ignored (Marcus, Neuman & MacKuen, 2000). For example, the emotion of fear induced by a campaign focusing on threats to national security may guide the voter's attention towards messages offering safety and stability, while simultaneously leading to the disregard of messages concerning, for instance, economic issues.

This kind of selective perception relies on the model of affective intelligence, which suggests that emotions such as fear and enthusiasm activate different cognitive pathways—fear increases attention and stimulates the processing of new information, while enthusiasm strengthens the motivation to confirm pre-existing beliefs (Marcus, Neuman & MacKuen, 2000). An example of this is Donald Trump's campaign, in which narratives about immigration issues evoked fear and directed attention to security topics, while enthusiastic messages (*Make America Great Again*) encouraged his supporters to ignore inconsistencies, as the emotion of enthusiasm fosters confirmation of existing attitudes. This is one example of how different emotions have different effects in different contexts. Therefore, regarding the influence of emotions on cognition, it can only be stated in general terms that such an influence exists, and any further conclusions can only relate to specific emotions activated under specific circumstances.

In the field of political marketing research, it is particularly important to examine the aspects in which emotions directly influence how information contained in political messages is processed. There is a wealth of research on the circumstances under which emotions exert such direct influence, and here only a few examples will be presented. For instance, studies on how emotional influence promotes *cognitive economy* show that when individuals are emotionally engaged, they are more likely to use heuristic (fast and automatic shortcuts) strategies rather than systematic processing (Petty & Cacioppo, 1986). Similar findings appear in studies that explore the already mentioned relationship between emotion and selective attention—messages that activate emotions simultaneously establish a goal, and the tendency towards action motivates selective processing of information relevant to that goal (Nabi, 2003: 227). For example, a message about rising crime that emphasizes the threat is expected to evoke the emotion of fear. Further cognitive processing of that message is shaped by the emotion of fear through selective attention to threat-related information (Marcus, Neuman & MacKuen, 2000).

A political message that appeals to emotions - such as a video depicting a crisis situation with dramatic music and visuals - will lead to political judgement based on the feeling elicited by the message as a stimulus, rather than on the analysis of facts. This mechanism becomes particularly prominent in election campaigns when voters, exposed to a large number of messages in a short period, resort to emotionally driven assessments of candidates. The aforementioned examples show how the influence of emotions, by activating “shortcuts” and selection processes, affects the subsequent cognitive processing of information—that is, the influence of emotions pertains not only to how certain information will be processed cognitively, but also to which information will even enter into cognitive processing. Nabi (R. Nabi) equates emotions with frames (emotions as frames), which privilege certain information in terms of accessibility and thereby guide the decision-making process that follows (2003). He conducted studies showing that different emotions affect information accessibility in different ways, indicating that the results of such research reveal not only the relationship between emotions and framing, but also the importance of discrete-emotion perspectives in persuasive contexts (Nabi, 2003).

Emotions also have a strong influence on the encoding and storage of political information in long-term memory. Damasio (1994) explored the role of emotions in cognitive evaluation and memory within the framework of the somatic marker hypothesis. Research shows that emotionally charged content leaves a more lasting impression and is more frequently recalled from memory, which political marketing utilises through emotional narratives and symbolism (Brader, 2006). For

example, the narrative of a “national hero” can establish an emotional connection between the voter and the candidate, which endures even after the election campaign.

One of the key aspects of the multilayered interaction between emotion and cognition is the concept of motivated reasoning, which implies that people use cognitive resources not to objectively process information, but to reinforce their existing beliefs, with emotions serving as the fuel for this process (Lodge & Taber, 2013). Cognitive responses are not neutral - positive emotions toward a candidate can encourage elaboration of positive information and simultaneously rationalisation of negative information. Similarly, feelings of anger toward a political opponent may lead to selective searching for negative information about that person (Westen, 2007). Since this process is directed toward reinforcing existing attitudes and focusing on negative information about the opponent, motivated reasoning further amplifies the effects of political polarisation. Examining how emotions influence motivated reasoning - and the overall effect of this cognitive process on political marketing - is of great importance, as it helps explain not only why people maintain certain attitudes, but also why they change them. The next chapter will address the concept of motivated reasoning in more detail.

8. Motivated Reasoning

8.1 Definition of the Concept

You have surely witnessed countless situations in which an individual listens to evidence and arguments indicating that their political stance is based on falsehoods or inconsistencies, and yet, instead of that stance being changed or weakened, it becomes even stronger. If you were to ask them how it is possible that they still hold the same opinion after being confronted with evidence supporting the opposite view, instead of at least considering the validity of their belief, you would hear an even more assertive defense of their position, based on rationalizations aimed at convincing you that they are right despite the evidence. In most cases, this would no longer be an individual merely expressing an opinion, but someone fervently defending it, giving the impression of feeling personally attacked. If this situation involved the evidence being presented by a political opponent of the individual's preferred political option, you would also observe an intensified defense of their initial stance and support for their political choice, as well as an increasingly negative opinion of the political opponent. In that moment, the opponent is no longer a source of evidence and new information, but an attacker to be defended against—and even counterattacked. In such a situation, you are witnessing the activation of the cognitive process of motivated reasoning. The individual whose reasoning seemed inexplicable from a logical perspective, according to the findings of most studies on this process, was likely unaware that their reaction was driven by motivated reasoning. Despite the feeling of being under attack and the impulse to defend themselves, they most likely also had the impression that their reasoning was entirely logical and based on common sense.

Motivated reasoning significantly shapes how individuals think and behave when exposed to political persuasion, which is why it is essential to consider this type of information processing in the context of examining the mobilising role of political persuasion. This is particularly important because, ultimately, all effects of political persuasion depend on how recipients process and reason about the information to which they are exposed—and the results of many studies support the premise that essentially all reasoning is motivated (Lodge & Taber, 2012; 2013; Kunda, 1990). This premise further suggests that all information individuals reason about—information disseminated through political marketing activities to influence attitudes and behavior—is filtered through the mechanisms defined by various aspects of motivated reasoning. In defining the concept of motivated reasoning, there is a fairly high level of consensus among various authors that the core of this cognitive process lies in the following characteristics:

- a biased cognitive process that determines strategies for accessing, constructing, and evaluating beliefs (Kunda, 1990);
- the tendency of individuals to align their information processing with their ultimate goals (Lodge & Taber, 2013);
- a domain of cognitive processing that concerns how the brain processes, uses, and stores information, as well as the factors that influence processing mechanisms (McRae, 2022); and

- a form of implicit emotion regulation in which the brain converges on conclusions that minimize negative and maximize positive affective states associated with threat or goal attainment (Westen et al., 2006).

Thus, the various definitions of motivated reasoning merely emphasize different aspects, while there is virtually no disagreement regarding the very nature of this process. In order to clarify this concept, some of its key aspects—around which there is a high level of consensus—will be briefly presented. As already noted, studies in this field generally differ in their focus on specific aspects or in the application of different methodologies.

Unawareness is one of the key factors in the process of motivated reasoning. Speaking about the effects of motivated reasoning on our attitudes and behavior, Lodge (M. Lodge) and Taber (C. Taber) compared our inner world to the statements of astrophysicists claiming that only 6.4% of the universe is visible, with another 23% invisible but measurable, while the remainder lies in total darkness (2013). This analogy is significant in the context of defining motivated reasoning, as this cognitive process occurs largely at the unconscious level, as does its influence on our political attitudes and behavior. Figuratively speaking, in the realm of motivated reasoning, the visible portion could be compared to traditional methods for studying this process (self-report, behavioral methods, etc.); the invisible but measurable portion could be likened to the current application of neuroscientific methods in this field; and a large part remains “in the dark.” This “darkness” refers to the domain of the unconscious, linked to yet unexplored mechanisms of brain function. Motivated reasoning is the result of strong cognitive and affective forces that motivate and direct political action beyond the scope of awareness and control, and political behavior and attitudes are largely driven by these unconscious mechanisms that govern memory accessibility (Lodge & Taber, 2013). There is an abundance of research addressing the influence of unconscious mechanisms on political decision-making. One illustrative example of the extent to which unconscious mechanisms affect our attitudes and behavior is an experiment in which participants, based solely on photographs of candidates (whom they had never seen before), decided which one appeared more competent. The photographs were shown for only about one second (in some parts even less), and this method predicted the outcomes of 68.6% of gubernatorial and 72.4% of Senate races (Ballew & Todorov, 2007). Although such experiments are not directly related to motivated reasoning, they are relevant to the analysis of this cognitive process because they clearly demonstrate how quickly individuals make decisions without access to other information or context. The same unconscious mechanism is at work in the case of motivated reasoning. The difference lies in the fact that in motivated reasoning, conditionally speaking, there is a specific stimulus—namely, the contradiction or inconsistency of presented information relative to the individual's motive. However, this stimulus equally triggers unconscious mechanisms of reasoning and decision-making.

Long-term and working memory are also important factors that must be considered when analyzing the process of motivated reasoning. Virtually all of these factors, including memory, are related to the aforementioned influence of the unconscious. When an individual is exposed to a message—whether consciously or unconsciously—certain concepts from long-term memory are activated. Once a concept is activated, this activation spreads to other concepts, regardless of whether they are semantic or affective (Lodge & Taber, 2013). Political communication, and

particularly political persuasion as one of its functions, typically involves a multitude of concepts to which the recipient is exposed. When watching a campaign TV spot, for example, one simultaneously perceives the message, the image, the tone of the candidate's or narrator's voice, the background music, and so forth. Unlike long-term memory, working memory refers to the selected concepts of which we are consciously aware. It has certain capacity limitations - only about seven concepts can be simultaneously retained in working memory (Lodge & Taber, 2013) - and it relates to what the individual is consciously thinking about at that moment. The fundamental assumption of the motivated reasoning model proposed by Lodge and Taber is that affective and cognitive reactions to internal and external events are activated at the unconscious level, after which spontaneous spreading activation occurs along associative pathways connecting thoughts and feelings, such that even early events - those invisible to awareness—determine the direction of all subsequent processes (Lodge & Taber, 2013). This understanding of the role of long-term and short-term memory thus pertains to the selectivity of concepts from memory under the influence of a stimulus message. In other words, at the unconscious level, a selection of both cognitive and affective reactions occurs - determining which elements from the vast long-term memory reach the limited working memory. Put differently, what we are aware of has already been selected by a mechanism of which we are unaware. In the case of motivated reasoning, this selection occurs based on an automatic sense of how the message is experienced in relation to our motive, or our goals, as will be discussed later.

Implicit and explicit attitudes are also factors that must be considered in the analysis of motivated reasoning. As already mentioned, Lodge and Taber argue that political behavior and attitudes are driven by unconscious mechanisms that control memory accessibility, and they remind us that political science research has historically been constrained by the assumption that rationality and intentional reasoning determine political behavior. More recent research, however, suggests that this assumption generally holds true only for what people believe or want to believe about themselves, while in reality there is often a significant gap between explicit attitudes (those we express and are aware of) and implicit ones (those of which we are unaware and which influence us unconsciously). Several decades of research in cognitive science, abundant behavioral studies in social psychology, and especially findings from neuroscience challenge the conventional view that political behavior is the product of rationality and that individuals act consciously based on rationally formed beliefs. These findings have led to a general shift in how political attitudes, beliefs, and behavior are measured and interpreted. What Lodge and Taber describe as *a revolution in thinking about thinking* (2013:2) is primarily driven by the acceptance of dual-process models, which differentiate between the unconscious (system 1 or implicit) and the conscious (system 2 or explicit) systems—system 1 processing is spontaneous, fast, unconscious, and effortless, while system 2 is slow, deliberative, effortful, and conscious (Lodge & Taber, 2013; Stanovich & West, 2000).

Bias is also a factor that directs the process of motivated reasoning, and to some extent, it can even serve as a synonym for this cognitive process. When someone reasons under the influence of motivated reasoning, in everyday language it might simply be said that the person is biased. In fact, the entire process of motivated reasoning is imbued with bias—primarily unconscious bias toward information that aligns with the motive of protecting already-formed political beliefs and previously taken political actions and behaviors, that is, with the individual's goals. Above all, this pertains to the aforementioned unconscious bias in the selection of data and

concepts from memory. Findings show that individuals were “faster to generate those autobiographical memories that were consistent with their currently desired self-concepts, and subjects were faster to endorse as self-descriptive those traits reflecting currently desired self-concepts” (Kunda, 1990: 494). Bias can occur in various domains—bias toward others, toward the data we consider when forming conclusions, toward the beliefs we hold about an event, toward the heuristics we employ during reasoning, and so on (Kunda, 1990). An example of bias toward others is when we tend to think more favourably of the political candidate we support and more negatively of the opposing candidate, regardless of the factual accuracy of the statements being made at that moment. In Westen’s experiment, participants perceived fewer of the same inconsistencies in the candidate they supported than in the opposing candidate (Westen et al., 2006; Westen, 2007).

Rationalisation is another characteristic feature of the process of motivated reasoning, one that characterizes this cognitive process to such an extent that, just like bias, it can be used in everyday language as a synonym for motivated reasoning. For an individual who expresses an attitude under the influence of motivated reasoning, in everyday terms, we would not be mistaken to say that they are *biased*, but we would also describe the essence of their reasoning if we said they are *rationalising*. Due to the manner in which affective and cognitive forces act upon political behavior, it is more appropriate to describe individuals under the influence of political persuasion as “rationalizing” rather than rational beings (Lodge & Taber, 2013). In political behavior, it is precisely the process of motivated reasoning that is most responsible for this feature of individuals as beings who are more rationalizing than rational. People who make decisions under the influence of motivated reasoning are unaware that they are guided by bias toward their goal, or motive, and thus motivated reasoning implies that they will try in every way to rationalize and justify their conclusion, making efforts to preserve what some authors call the “illusion of objectivity” (Kunda, 1990; Kruglanski, 1980). In other words, for unreasonable conclusions based on biased disregard for factual and logical inconsistencies, people also have an unconscious urge to seek rational explanations. This effort toward justifying a conclusion and the illusion that they are doing so in a rational manner constitutes rationalization as one of the key features of motivated reasoning. Without rationalisation, it would be difficult to speak of motivated reasoning. In the context of the aforementioned System 1 and System 2, that is, the dual-process model of reasoning, rationalisation can also be discussed based on the fact that although many studies show that the majority of brain activity occurs within what is labeled as System 1, most people consciously prefer to think of themselves as conscious beings who have control over their actions, and if they act under the influence of System 1, they tend to construct a reason for it (Bridger, 2015).

The influence of emotions on motivated reasoning is also one of the factors that determine this process. Westen’s research provided neuroscientific evidence of the role of emotions in motivated reasoning, thus crowning several decades of inquiry into the relationship between emotion and cognition—traditionally considered separate systems—with evidence obtained through direct observation of the brain via functional magnetic resonance imaging. In fact, Westen’s studies show that emotions are not just one of the factors that define the process of motivated reasoning, but that they are the key factor. After nearly the entire history of ignoring and denying the relationship between cognition and emotion—even within the field of political communication—we can now directly observe the interdependence of these two systems at the level of brain activity. In line with the findings of his research, Westen defines motivated reasoning

as a form of implicit emotion regulation in which the brain converges on evaluations that minimise negative and maximise positive affective states associated with threat or goal achievement (Westen et al., 2006). These findings point to the dominant role of motivated reasoning, but also suggest emotional constraints on political judgment, candidates, and beliefs (Haas, Warren & Lauf, 2020). Studies of the relationship between emotion and motivated reasoning indicate the profound importance of emotions in political behavior—without a direct connection between feelings and thoughts and action, our beliefs and preferences would be cold, and as such would be unstable and poorly predictive of behavior (Lodge & Taber, 2013). Neuroscientific research such as Westen’s has revealed not only the organic link between the process of motivated reasoning and emotional activation but also the dominant role of emotions in that process, which will be discussed in greater detail later.

Based on the fact that motivated reasoning strengthens existing beliefs and also intensifies negative attitudes toward opposing beliefs, Westen directly links this form of motivated cognition with the phenomenon of polarisation, arguing that motivated reasoning reinforces polarisation. On the other hand, some authors point out that there is still an ongoing debate about whether motivated political reasoning is the best explanation for the phenomenon of polarization (Kahan, 2016). Taking into account all the above-mentioned factors, motivated reasoning can be described as a form of reasoning in which emotional biases influence decision-making or judgment, whereby those biases obscure rational processing, and decisions are based not on rationality but on desirability (McRae, 2022). The following section will present the relationship between differently defined goals and motivated reasoning.

8.2 Categories of Motivated Reasoning

Motivated reasoning does not always unfold in the same way and depends on the goals that have been set, which then determine the type of motive involved. We do not arrive at the same outcome under the influence of motivated reasoning if we are motivated by a desire for our conclusions to be accurate as when we are motivated by a desire to reach a conclusion that aligns with a pre-established outcome. Therefore, a distinction is made between motivated reasoning guided by **accuracy goals** and that guided by **directional goals** (Kunda, 1990; Lodge & Taber, 2013). Directional goals are also referred to as **partisan goals** (Lodge & Taber, 2013) because they are shaped by allegiance to a particular “side.” This may refer to affiliation with a particular political party, alignment with a political ideology, or support for a specific candidate, as well as holding strong views on issues marked by pronounced societal polarisation. Although the mechanisms through which motivated reasoning operates differ depending on which of these two categories is involved, in both cases individuals consciously experience their conclusions as accurate. In other words, even when their motivation stems from a directional or partisan goal, people still perceive accuracy as their objective.

Accuracy goals motivate individuals to carefully consider relevant evidence in order to arrive at an accurate or at least approximately accurate conclusion, while partisan goals motivate individuals to channel the force of reasoning in defence of a pre-existing, specific conclusion (Lodge & Taber, 2013; Kruglanski & Webster, 1996). Accuracy goals lead to the use of beliefs

and strategies deemed most suitable, whereas directional goals prompt the use of beliefs and strategies considered most likely to support the desired conclusion (Kunda, 1990: 481). This conceptualisation of cognitive goals may be further expanded by the model proposed by Kruglanski (A. W. Kruglanski) and colleagues, known as the *motivated closing of the mind model* (2004), which centres on the notion of the *need for closure*, defined as the desire for definite knowledge about a particular issue. This need carries far-reaching consequences as a socio-cognitive phenomenon at the intrapersonal, interpersonal, and group levels of analysis (Kruglanski & Webster, 1996: 263). According to Kruglanski, the need for closure arises from two primary tendencies: **urgency**, which entails a desire to achieve closure as quickly as possible, and **permanence**, which implies a desire for that closure to endure as long as possible. Applied to motivated reasoning, this concept suggests that people feel the need to regard their conclusions as definitive—that is, they feel no need to seek new information that might call their conclusions into question. For instance, an individual who opposes the European Union may feel that their stance is based on a sufficient amount of evidence to render it unchangeable. They subsequently remain closed to any additional evidence or information that might challenge this pre-formed view, as they perceive their conclusion to rest on definitive knowledge. They also feel the need to believe that their position is not temporary, but lasting.

Directional goals or partisan goals—According to the model of motivated reasoning offered by Lodge and Taber, partisan goals lead to selective information processing and are driven by automatic affective processes that determine the direction and intensity of an individual's biases (Lodge & Taber, 2013). People who support Donald Trump experience arousal of positive emotions and adopt a favourable stance towards him even before they become consciously aware of his identity or the content of his statements. The motivation associated with partisan goals is automatically triggered, implying that all subsequent conscious reasoning is shaped by mechanisms of selective exposure, selective attention, and selective evaluation. Selective processing of information is particularly significant, as it affects the development, activation, and expression of attitudes and behaviours (Lodge & Taber, 2013). The way in which motivated reasoning contributes to attitude polarisation (Westen, 2007) occurs precisely through the processes of selective attention and exposure, which also reinforce attitude persistence. This means that pre-existing attitudes are defended against new information that poses a challenge or threat to those attitudes, and may even become more extreme when confronted with both “pro” and “con” arguments. Such extremisation of attitudes arises because individuals uncritically accept evidence and information that supports their own position, while reacting critically and oppositional toward evidence and information that contradicts their views. Lodge and Taber argue that polarisation is triggered by an initial and uncontrolled affective response, and point out that most polarisation research in social psychology has neglected the important role of affect and has been based on arguments that did not incorporate affective dimensions (Lodge & Taber, 2013). Westen's studies on motivated reasoning and his conclusions on the significance of this cognitive process in establishing and reinforcing polarisation are likewise grounded in the premise of the dominant role of emotions in the process (Westen, 2007; Westen et al., 2006).

It is important to emphasise that individuals guided by directional goals genuinely strive to appear rational and to construct justifications for the conclusions they favour, so that they may convince others of the validity of their conclusions through such rationalisation. Kunda (1990) argues that the very possibility of rationalisation constitutes a limitation of motivated reasoning

initiated under the influence of directional goals – “they draw the desired conclusion only if they can muster up the evidence necessary to support it” which is what he terms the “illusion of objectivity” (483). Not only do individuals draw upon beliefs and arguments from memory that could support their preferred conclusion, but they also creatively combine accessible knowledge in order to construct new beliefs that might logically underpin the desired conclusion (Kunda, 1990: 483). For example, if an individual wants to believe that the economic policies proposed by the candidate they support are the best solution, they will justify this by referencing the candidate’s previous successful actions in economic policy and creatively explaining why those actions are particularly necessary now, while ignoring poor decisions or the fact that past circumstances are incomparable with those in the present. Still, in most cases, individuals will believe what they want only within the bounds that reason allows, and if the counterarguments are sufficiently strong, they will often be compelled to acknowledge opposing arguments and accept undesired conclusions.

Accuracy goals – Research on reasoning influenced by accuracy goals suggests that when individuals are motivated to reach accurate conclusions, they invest more cognitive effort, attend more closely and carefully to relevant information, process it more deeply, and often apply more complex reasoning rules (Kunda, 1990: 481). People can be motivated by accuracy goals for various reasons, but all essentially relate to the perceived risk of harm that may result from drawing an incorrect conclusion. The greater the potential harm posed by an incorrect conclusion, the stronger the individual’s motivation to reach an accurate one. Although it is generally assumed that motivated reasoning driven by accuracy goals reduces the risk of erroneous reasoning and bias, this is true only under certain conditions. For example, some studies provide evidence that bias reduction occurs only if *accuracy-promoting manipulations* are introduced before individuals are exposed to the information (Tetlock, 1983; 1985, as cited in Kunda, 1990: 481). If such manipulations occur after individuals have been exposed to the information, but before they have drawn a conclusion, these interventions – designed to steer individuals towards accuracy goals – have no impact on reducing bias, according to these findings. Moreover, adopting accuracy goals does not necessarily reduce the likelihood or extent of faulty reasoning. Most research confirms that, in order to reduce bias and erroneous reasoning under the influence of accuracy goals, individuals must adopt more appropriate reasoning strategies, view these strategies as superior to others, and be willing and able to implement them (Kunda, 1990). However, this is not applicable in the case of biases that are resistant to *accuracy manipulations*. Furthermore, the fact that an individual is motivated to use a reasoning strategy they consider superior does not mean that the strategy is in fact superior, which implies that under the influence of accuracy goals, individuals may in some cases make even greater reasoning errors. In other words, the activation of more effortful and complex cognitive information processing may, under certain circumstances, lead to the opposite effect – rather than improving the accuracy of conclusions, it may increase the level of bias and reasoning errors.

8.3 The Paradigm of Motivated Political Reasoning

Motivated political reasoning refers to the application of the previously described cognitive process of motivated reasoning to the field of politics, that is, to individuals’ reactions to stimuli arising from the domain of political communication. When people think about politics, regardless

of whether at that moment they are forming, confirming, or changing a particular attitude, or making a decision on whether or not to engage in a certain behaviour, it is assumed that they do not do so in a neutral manner. People think about politics based on already formed attitudes and feelings, which were themselves previously shaped under the influence of the same cognitive process. When confronted with new information, feelings related to the topic to which that information refers are automatically activated, which then exert a direct influence on the further processing of those data. When we see a candidate we support on the television screen, our cognitive processing is already set in the direction of agreement with everything they are going to say and in the direction of seeking ways to find justification and to rationalise all the counterarguments presented by their opponent. In such a case, our information processing is primarily oriented, therefore, towards the goal of reaching positive conclusions about what is said by the candidate we support, and negative ones about what is said by their opponent, rather than towards an objective and unbiased evaluation of the information presented. In other words, the focus is on our goal, which is determined by what we want to conclude, rather than on the information upon which that conclusion should be based. This kind of cognitive processing of political information occurs because “citizens are often *partisans* in their political information processing, motivated more by their desire to maintain prior beliefs and feelings than by their desire to make “accurate” or otherwise optimal decisions” (Lodge & Taber, 2013: 149–150). In the case of such cognitive processing of political information, which represents the most common principle by which people process information in the field of political communication, we are speaking of motivated political reasoning.

Starting from the assumption that all reasoning is motivated (Lodge & Taber, 2012; 2013; Kunda, 1990), and therefore also political reasoning, the process of motivated reasoning can be observed as a continuous sequence in which the effect of one instance of motivated reasoning has a key influence on the next. In other words, if we process new information under the influence of motivated reasoning shaped by previously formed attitudes, and if all reasoning is motivated, then the formation of those prior attitudes also occurred under the influence of motivated reasoning. Likewise, following this principle, we may assume that the same will apply to the processing of future information, and that each new *wave* of information processing related to that attitude will only serve to strengthen it. Given that it has already been pointed out that motivated reasoning involves rationalisation, it is reasonable to assume that each new rationalisation reinforces that attitude, since it is a process through which the individual, in a way, convinces even themselves via rationalisation. The more *layers* of such persuasion (of others and oneself), during which the individual seeks arguments to justify and rationalise their attitude, the more we may conclude that this individual will become increasingly convinced of the correctness of that attitude. If an individual believes that the candidate they support has the best solutions for the economic crisis, under the influence of motivated reasoning, they will perceive each of the candidate’s messages on economic topics as a basis for a positive conclusion about their economic policy. By rationalising their positive conclusion about each such message, the individual, through motivated reasoning, accumulates arguments they use to persuade others, but also themselves, that the candidate they support offers the best solution to the economic crisis.

8.3.1 The Paradigm of Motivated Political Reasoning

The results of a large number of studies on the mechanism of motivated reasoning in the domain of political judgement formation have yielded sufficient evidence to justify the delineation of a distinct form of this type of reasoning—the paradigm of motivated political reasoning. Although the principles by which motivated reasoning generally functions remain the same, the prefix “political” primarily points to the specificity of the motives that activate this process in the context of political judgement formation. It is indisputable that motivated political reasoning is closely associated with its influence on attitudes and behaviour and with the making of political decisions; however, in this instance the term “judgement” will be used in order to highlight the most narrowly defined domain of influence of motivated political reasoning. Thus, it is necessary to distinguish between the long-term and overall impact of motivated political reasoning on attitudes and behaviour, and therefore decisions, and the immediate impact that occurs at the moment of exposure to a political message as a stimulus. The long-term impact results from the accumulation of a larger number of situations in which the process of motivated reasoning is activated in relation to a specific motive as a trigger. However, at the moment when an individual is exposed to specific political messages, that is, to the information contained within that message, they form an immediate judgement regarding that information. From the influence on the specific judgement arises the influence on the political decision, that is, on attitudes or behaviour. While the individual follows a news report that presents information inconsistent with their motive, under the influence of motivated political reasoning, they arrive at a judgement regarding that report which then serves to defend their initial attitude and often to reinforce it.

The paradigm of motivated political reasoning enables the principles of this cognitive process to be applied to the already existing body of knowledge on political communication, particularly regarding political persuasion as one of its functions. This is precisely the answer to the question of how motivated political reasoning differs from motivated reasoning in general, and why it must be singled out as a distinct form of reasoning. In other words, the specificities of political communication are simultaneously the specificities of motivated political reasoning, which concerns the reasoning of political information and messages and the making of political decisions, based on judgements about such information and messages. For instance, if there already exists systematised knowledge on electoral motivation, representing a distinct field within political marketing, then the analysis of motivated reasoning influenced by that type of motivation will certainly bear its features as well.

Lodge and Taber, acknowledging the specificities of this cognitive process in the field of politics, proposed a three-part theory of motivated political reasoning, which is in fact based on three sub-theories (sub-theory), each reflecting what they have termed “the three steps toward a theory of motivated political reasoning” (Lodge & Taber, 2012: 183). These three sub-theories are: (1) hot cognition, (2) online processing, and (3) the “how do I feel?” heuristic, which together comprise the three-step mechanism by which they believe citizens think about and reason regarding political leaders, groups, and issues (Lodge & Taber, 2012: 183).

Hot Cognition – The first step or sub-theory is based on the hypothesis of hot cognition (Abelson, 1963, as cited in Lodge & Taber, 2012; 2013). Hot cognition refers to what may also be termed a defining feature of this theory—namely, the premise that all social concepts and social

information are “laden” with affect. Thus, the theory is based on the assumption that when we think about a given candidate or political issue, we do so under the influence of affect, regardless of the intensity of the affect (whether strong or weak) or its valence (whether it entails positive or negative emotions). From a terminological perspective, the name of this sub-theory or hypothesis directly reflects the recognition of the intertwinement of emotion and cognition—the term “hot” refers to the presence of affect, while the term “cognition” denotes the mechanism through which that affect or emotion is manifested and exerts its influence. In this way, motivated political reasoning, although constituting a cognitive process, actually begins with the dominant role of affect, that is, emotion, in that process (Zajonc, 1980; Lodge & Taber, 2013; Westen et al., 2006; Westen, 2007; Redlawsk, Civettini & Emmerson, 2010, and others). Hot cognition represents a key step that determines the further course of motivated reasoning, as it refers to the *affective tag* directly associated with a given concept in long-term memory (Lodge & Taber, 2012). From long-term memory, this concept, affectively *charged*, is then transferred at the unconscious level into working memory; that is, it is affect that determines the pathway from the unconscious to the conscious in motivated political reasoning. In other words, hot cognition determines both what we will reason about and in what manner on the path from the initial stimulus - i.e. the political message - to the conclusion. The fact that, according to this theory, it is thus determined how we shall reason about such information, supports the claim that, under the influence of this mechanism, we are not actually reasoning about the information itself, but about our relationship to it.

Online processing represents a mechanism for the actualisation of the value of the affective tag assigned to concepts in memory. This theory proceeds from the assumption that “when people see their task as forming or revising an overall impression of a person, place, event, or idea, they automatically extract the affective value of the message and then spontaneously, when the information is before their eyes so to speak, revise their summary evaluation of the object” (Lodge & Taber, 2012: 184). That evaluation represents the outcome of all previous evaluations of that object and is subsequently stored again in long-term memory, from where it will be “retrieved” into working memory upon encountering information on the same topic. However, it is important to understand how information travels from long-term to working memory. The pathway of information from one memory system to the other—that is, from the unconscious to the conscious—occurs through the so-called spreading activation. This mechanism is activated when nodes in long-term memory, in which concepts and affects are interconnected, are stimulated or energised, and activation occurs the moment we see or hear that concept, or when we think about it. At that point, the concept in long-term memory transitions from a dormant state to a state of readiness with the potential to enter working memory (Lodge & Taber, 2012: 193). Here too, we observe the cumulative effect of motivated reasoning, which relates to the previously mentioned distinction between the effect of motivated political reasoning on a specific message and information, and the long-term effect referring to the sum of the outcomes of individual instances of this type of cognitive information processing on the same topic. For example, an individual already has a formed affective attitude towards a certain politician. At the moment they see the politician’s campaign television advertisement, they process the information from that advert in accordance with the affective tag already assigned in long-term memory. This is followed by a new round of information processing under the influence of motivated political reasoning, the conclusion of which is added to the existing affective tag and “returned” to long-term memory until the next encounter with a stimulus related to that politician.

“How do I feel?” heuristic refers to the step of motivated political reasoning that concerns processes occurring within working memory. Conditionally speaking, this refers to the part of motivated political reasoning where the unconscious transitions into the conscious, and from which information can also be gathered through self-reporting. This heuristic “captures the affective tally attached to the concept and “moves” it into working memory, thereby signalling the effective coloration of the object, “telling” the individual at the moment of recognition how much she or he likes or dislikes him (her, it)” (Lodge & Taber, 2012: 184). If it is a candidate in an election, at the moment you see their name and recognise that the letters of the name represent a concept associated in long-term memory with that person, the affect linked to that concept is simultaneously and automatically drawn into working memory. Motivated political reasoning implies that when you see that politician, your reaction cannot be affectively neutral, because the very process of recognition (awareness of whom it is) also entails the *recognition* of the emotions you associate with them. This step too refers to the interconnection between cognitive and affective processing.

Lodge and Taber state that these three mechanisms are inseparable and facilitate information processing in the sense that one need not evaluate each individual trait of an object, but they also entail biases that prevent fair evaluation of that object. According to them, the likelihood of bias arising in the reasoning process occurs in the following situations, i.e. when the following contextual factors are present (Lodge & Taber, 2012):

- When an individual’s attitudes are provoked
- When an affective judgement is required;
- When the individual’s attitudes are strong;
- When the consequences of faulty reasoning are weak;
- When the evaluative task is complex;
- When “objective” information is not easily accessible or the evidence is ambiguous;
- When disconfirming evidence is not salient;
- When counterarguments are readily available;
- When the individual is being directed or under time pressure.

This theory of motivated political reasoning is based on the premise that, depending on whether motivated reasoning is initiated by directional goals (Kunda, 1990), i.e., partisan goals, or accuracy goals, there are four types of motivated reasoning. Lodge and Taber emphasise that the typology of motivated reasoning they propose should not be confused with personality types, since depending on contextual factors (such as those listed) and the subject of motivated reasoning, the same person may engage in different types of motivated reasoning (Lodge & Taber, 2012). Thus, *partisan reasoning*, which most often occurs in the form of a member or supporter of a particular political party or position, entails strong partisan goals and weak accuracy goals. *The reasoning of the intuitive scientist* assumes that both types of goals are strong, while reasoning according to the model of classical rationality entails strong accuracy goals and weak directional goals. The model of classical rationality represents more of a philosophical ideal type and is extremely rare in reality. Lastly, the final type of reasoning is designated as low-motivation reasoning, in which both goals are weak, and in such a case, information processing often does not occur at all. In the figure 24, the key characteristics of all four types of reasoning are illustrated. Lodge and Taber argue that

political reasoning is initiated precisely through the interaction of individual motivations and situational context, i.e., contextual variations (Lodge & Taber, 2012).

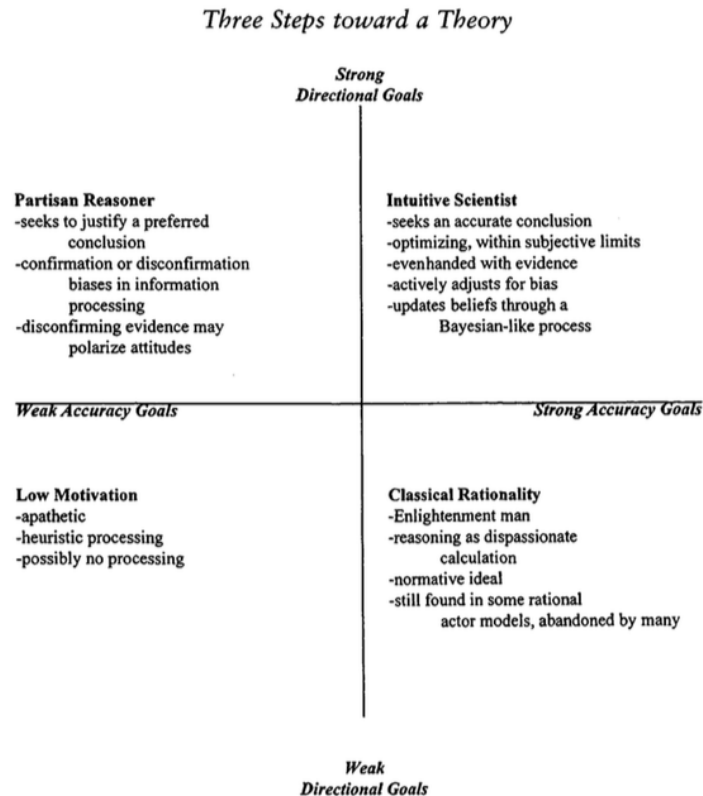


Figure 24 Typology of motivated reasoning (Lodge & Taber, 2012: 187)

In order to understand the characteristics of decision-making under the influence of motivated reasoning, we must begin with the steps that the decision-making process entails. According to Lodge and Taber, these are: (1) problem definition, or goal activation, (2) gathering evidence, (3) assessing implications, (4) reassessment, and (5) integration (Lodge & Taber, 2012). In contrast to an individual who is not influenced by motivated reasoning, an individual guided by partisan goals defines the problem in accordance with the activation of such a goal. If the information to which this individual is exposed contradicts their goal, they will primarily define the problem as an “attack on their goal”, rather than as a communication of the actual content. For instance, if a political opponent of the candidate supported by the individual presents information suggesting that this candidate has damaged the national budget through poor political decisions, the individual guided by partisan goals defines the problem as “an attack on the candidate they support”, rather than as a matter of damage to the national budget.

The same kind of selectivity occurs at the second step, i.e., the gathering of evidence. The aforementioned individual collects evidence in support of discrediting what the opponent is presenting, rather than evidence on the basis of which they could assess whether the statement is

true. In the third step – the assessment of implications – the process occurs automatically and unconsciously (Lodge & Taber, 2012), and it is precisely in the fourth step, during the reassessment (now at the conscious level), that the difference between motivated and unmotivated reasoning becomes apparent. Motivated reasoning in the reassessment phase involves the activation of selection mechanisms through which those evaluations that support the partisan goal are selectively retained. In the example provided, the individual will not, during reassessment, focus on the implications that the budgetary damage might have for their own standard of living; rather, they will selectively choose those arguments for rationalising their position which support the idea that the candidate they endorse is conducting economic policy in the best interest of the citizens' standard of living. The final step is the integration of information, in which information or segments of information are integrated into a new or revised belief or evaluation. In the case of motivated reasoning—particularly when it occurs under the influence of a partisan goal - this integration is directed at confirming or strengthening an existing attitude or belief, and the individual concludes this step once they assess that they have gathered enough information, or evidence, to reach their goal, i.e. to rationalise their conclusion.

Table 3 Decision steps (Lodge & Taber, 2012: 189)

DECISION STEPS	
1	Problem Definition/Goal Activation
2	Gathering Evidence
3	Assessing Implications
4	Reassessment
5	Integration

Lodge and Taber (2012) identify the circumstances under which it is least likely that an individual will neutrally process new information, that is, the conditions under which motivated reasoning will be activated: (1) when motivation to reach an accurate conclusion is low, (2) when the new information concerns an already strongly held attitude, (3) when the information can be automatically incorporated into a stereotype, (3) when the issue in question is complex, (4) when citizens are under time pressure, (5) when the train of thought is disrupted, (6) when the message is one-sided. However, particularly interesting is the circumstance concerning individuals who possess a higher level of political knowledge in the domain to which the information pertains. Although it might be expected that such individuals, due to their greater level of knowledge, would be more accuracy-goal-oriented, the opposite process actually occurs—they hold the strongest attitudes and defend them with the greatest confidence, which makes them more prone to rationalisation, as they more easily find arguments for that phase of the motivated reasoning process.

The key shift introduced by this theory in the field of political information processing lies in its assumption that the same mechanism responsible for retrieving thoughts from long-term memory simultaneously retrieves the affective tone of those thoughts. Hence, the two key premises

of this theory are: (1) all reasoning is motivated, and (2) thoughts are inseparable from affect. Based on this theory, it may be concluded that achieving the effects of political marketing depends crucially on knowing how certain concepts are associated with affects in the long-term memory of the target group, and how those concepts are activated and transferred into working memory. The more information we possess about that initial phase of motivated political reasoning, the greater the likelihood of crafting a political message in a way that produces the desired effect - that is, guiding the course of information processing so that it leads to the desired conclusion.

8.3.2 The JQP Model of Political Information Processing

The JQP model was proposed by Lodge and Taber (2013) as a theoretical framework describing the architecture and mechanisms that determine when, how, and why unconscious thoughts, emotions, and goals govern political behaviour. The acronym JQP stands for John Q. Public, a term commonly used in American colloquial speech to refer to the *average citizen*. The symbolic name of the model points to its focus on describing how an average citizen, without necessary expertise or deep analysis, forms political beliefs and draws conclusions based on new information. The key assumption of this model is that such conclusions are reached quickly, intuitively, and under strong affective, that is, emotional influence.

Although this model also relates to motivated political reasoning, as does the previously described three-part theory, differences exist in the focus and aspects of the JQP model of political information processing and the three-part theory of motivated political reasoning. The JQP model focuses on how attitude formation occurs, whereas the three-part theory of motivated political reasoning concentrates on the reasoning process itself, that is, on the processing of new information. Furthermore, the key component of the JQP model is automatic emotional evaluation, while the core of the three-part theory lies in the typology of various forms of motivated reasoning. The JQP model centres on the affective “online” process, whereas the three-part theory addresses processes that involve a higher level of awareness, analysing different dynamics of the motivated reasoning process in relation to various interactions between contextual factors and activated goals. These two models by the same authors are complementary, and it may be said that the JQP model provides a closer elaboration of the phase of motivated political reasoning identified as crucial in the three-part theory—the influence of affect on the processing of new information. For this reason, it is necessary to outline the basic elements of this model.

According to this model, the foundation of all reasoning lies in an individual’s prior knowledge, that is, the source of all reasoning is in long-term memory. The difference between long-term and working memory and the significance of their interaction for the process of motivated reasoning has already been discussed. This model places strong emphasis on the way in which concepts and affects associated with those concepts transfer from long-term to working memory when faced with new information, and how that transfer subsequently determines the course of information processing. What is particularly emphasised in this model in comparison to the three-part theory of motivated political reasoning is that in this model, positive and negative affects are directly integrated with behavioural dispositions aimed at achieving a set goal (Lodge & Taber, 2013). Thus, the JQP model presumes a connection between thoughts, emotions, and

actions, and the way in which they are connected (for instance, whether the links between them are strong or weak) is determined by prior experience. According to this model, people do not store associative links in memory for every category or situation they have previously encountered, but “the direction and strength of links to people, places, and things varies by one’s accumulated experiences across time and the immediate context” (Lodge & Taber, 2013: 34).

The foundations of the JQP model of political information processing are most closely illustrated through the presentation of the seven basic postulates of this model (Lodge & Taber, 2013: 34):

(1) ***Automaticity*** refers to the fact that what people think, feel, say, or do is a direct function of the information that is immediately accessible from memory—regardless of whether this involves recalling facts or emotions, experiences, or transforming goals into actions (Lodge & Taber, 2013: 35). These processes rely on the previously mentioned mechanism of spreading activation (Lodge & Taber, 2012; 2013). Lodge and Taber outline four criteria by which a process may be designated as automatic. According to these criteria, the process must be: (1) spontaneous, (2) unconscious, (3) uncontrollable, and (4) must expend few cognitive resources.

(2) ***Hot cognition*** is a process already explained within the presentation of the three-part theory of motivated political reasoning, and it refers to placing emotions, that is, affect, at the centre of information processing. This postulate is based on the assumption that all socio-political concepts are *loaded with affect* (Lodge & Taber, 2012; 2013) and that affect, cognition, and behaviour are conceptually inseparable.

(3) ***Somatic embodiment of affect*** is a postulate that acknowledges evidence from neuroscience and social psychology which supports the connection between positive and negative emotions triggered by external events and internal thoughts with attitudes, goals, choices, and behaviour (Lodge & Taber, 2013: 45). The so-called somatic marker hypothesis was proposed by Damasio (1994), and has previously been discussed; it concerns, among other things, the explanation of the “gut feeling” phenomenon, which arises from the automatic and unconscious activation of affect when confronted with an external stimulus. This postulate refers to the direct linking of emotions with thoughts and action, and without such a connection, our preferences would serve as weak predictors of future behaviour.

(4) ***The primacy of affect*** is a postulate based on research findings supporting the notion that emotions become part of the decision-making process before cognitive elements are consciously activated (Zajonc, 1980). This postulate has already been described in more detail.

(5) ***Online updating of evaluations*** refers to the way in which concepts that are stored in long-term memory together with their affective label move into working memory, from where, after new evaluation, they are returned to long-term memory. Thus, this postulate concerns the role of memory in information processing. The principle of online information processing has already been discussed in the presentation of the three-part theory of motivated political reasoning, as it represents one of the three steps leading into that theory (Lodge & Taber, 2012). In elaborating on

the significance of this postulate, Lodge and Taber discuss the so-called *primacy effect*, which refers to the fact that an individual best remembers the last piece of information they hear, but is most strongly influenced by the first information received. Accordingly, the greatest impact is made by the messages delivered first in an election campaign, because the manner in which that initial message is stored in long-term memory affects how all new information on the topic addressed by that message will be processed. The message, once evaluated, is then returned to long-term memory and the “cycle” continues.

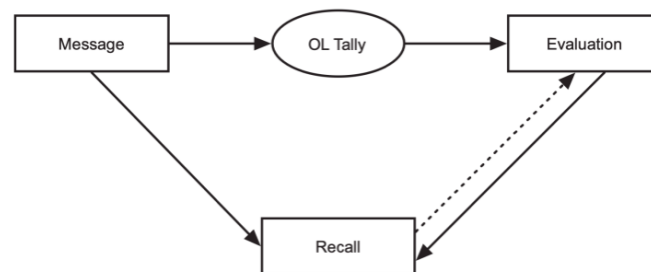


Figure 25 Online model of evaluation process (Lodge & Taber, 2013: 52)

(6) **Affect transfer** is a postulate that refers to the direct link between positive and negative feelings and an object or concept in memory. This postulate is based on the assumption that current affective states, by means of this connection, become associated with a currently activated object or concept from memory. For example, a sunny day is a good illustration of how the feelings generated by an event unrelated to the object being “retrieved” from memory can be transferred to that object (Lodge & Taber, 2013).

(7) **Affect contagion** is a postulate that assumes that affective labels assigned to social concepts and activated in the online process inevitably colour all stages of the evaluation process, and that this process may occur either explicitly or implicitly (Lodge & Taber, 2013). It is important to note that the JQP model is focused on affect rather than emotion and does not address discrete or dimensional emotional responses, but exclusively the influences of affect valence (positive or negative affect). Lodge and Taber (2013) assume that affect valence is key to determining the direction of response, that is, the way in which the information will be further processed, how affect will guide the evaluation of the situation, and how and when individuals will or will not label their feelings as emotions. The JQP model assumes that the characteristics of emotions, which define them, are determined by context, and just like beliefs and attitudes, they are constructed from what is available in memory. In contrast to emotions, online evaluation activates the “reward or punishment” system in relation to past experiences.

8.4 Affective Tipping Point

As has already been explained, motivated political reasoning implies that in the encounter with new information we evaluate that information in a biased way that is guided by affect. If we have a positive opinion about a candidate and a positive affect is associated in long-term memory

with the concept related to that candidate, when confronted with new negative information about them, we evaluate that information in a way that defends, maintains, and often strengthens our initial standpoint – the positive attitude toward that candidate. However, if the rules of such cognitive information processing were always valid and under all circumstances, no one would ever change their opinion. In the context of the political marketplace, this would mean that election outcomes would never change. Since this is not possible, the question arises – under what circumstances do the rules of the motivated reasoning mechanism cease to apply? In other words, what factor causes the confrontation with new information to “break through” the defence mechanism of motivated reasoning and trigger an effect that ultimately leads to a change in the initial opinion, that is, to the processing of new information without the effect of motivated reasoning?

Researchers who have addressed this question have found that at a certain point, the amount of new information that contradicts the initial attitude of the individual exposed to it leads to the nullification of the effects of motivated reasoning. In their studies, which deal with voters’ attitudes towards a particular candidate (in this case, positive), they started from the hypothesis that the information evaluation process in such a case consists of the following steps: (1) a voter develops an initial positive evaluation of the candidate through the early information that is learned; (2) if a small amount of negative information is encountered, rather than just adjusting downward this initial evaluation becomes more positive, showing the motivated reasoning attitude strengthening effect; (3) if enough negative information is encountered to heighten the voter’s anxiety about the preferred candidate, affective intelligence (Marcus, Neuman & MacKuen, 2000) suggests that he or she will become more careful in processing additional new information suggests that the voter will become more attentive in processing additional information; and (4) this increased anxiety and careful processing may lead to an affective tipping point where additional negative information begins to generate downward adjustments to the evaluation. (Redlawsk, Civettini & Emmerson, 2010: 569).

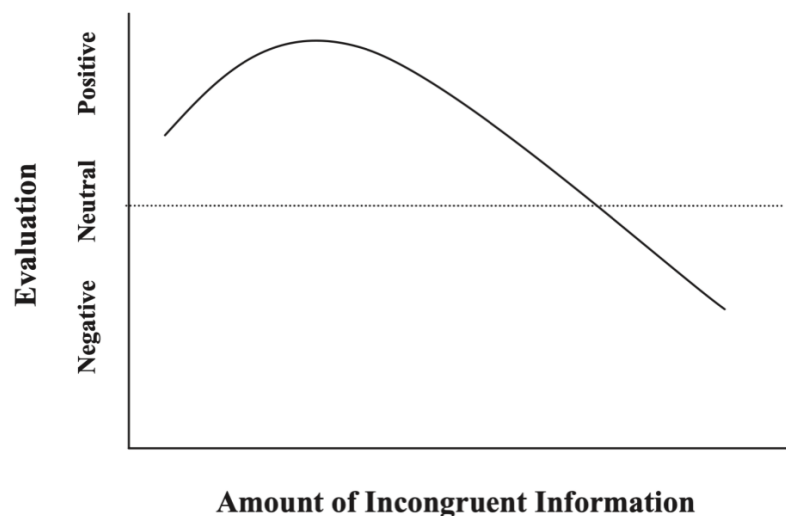


Figure 26 Expected effects of the amount of incongruent information on evaluation of a preferred candidate (Redlawsk, Civettini & Emmerson, 2010: 569)

Thus, reaching the affective tipping point implies that, initially, the evaluation of new negative information about a candidate supported (preferred) by the voter activates the mechanism of motivated reasoning and leads to the effect of reinforcing the initial attitude. However, the increase in dissonant information begins to provoke anxiety in the voter, and at that point, the voter starts to evaluate new information differently compared to the manner previously dictated by the mechanism of motivated reasoning. At that moment, the voter becomes less influenced by the goal of directional reasoning and more influenced by the goal of accuracy. The results of the experiment conducted by Redlawsk (D.P. Redlawsk), Civettini (A.J.W. Civettini), and Emmerson (K.M. Emmerson) confirm that with the increase of anxiety caused by sufficient exposure to negative information about the candidate the respondents support, they begin to process new information more carefully and to ignore existing affective expectations (Redlawsk, Civettini & Emmerson, 2010). Their conclusion is that voters are not under the influence of either motivated reasoning or rational processing, that is, this is not an either-or situation, but rather it depends on the circumstances under which information is processed.

If, however, we assume that the key factor in the change in the course of cognitive information processing is the rise of anxiety due to increased exposure to dissonant information, we see that the actual activation of the affective tipping point—at which the influence of motivated reasoning ceases—is based on the same principle on which motivated reasoning itself rests. If affect or emotion is the key factor that initiates the mechanism of motivated reasoning (Lodge & Taber, 2012; 2013; Westen et al., 2006), and anxiety the key factor that disrupts the effect of that mechanism, it becomes evident that the mechanism is both activated and interrupted on the basis of affect, i.e., emotion. Accordingly, the question arises whether a mere change of emotion (in this case from a positive feeling to anxiety) leads to a change in opinion, while the mechanism leading to the conclusion itself remains unchanged. In other words, if a change of opinion occurs due to the activation of another emotion, does the individual, even after the affective tipping point, continue to process information under the influence of motivated reasoning—only now under the influence of a different affective valence?

It can also be concluded that there is a transition from a directional goal to an accuracy goal (Kunda, 1990) after the activation of the affective tipping point. However, considering that further information processing again takes place under the influence of affect (although of altered valence) and the goal of accuracy (with the purpose of avoiding the feeling of anxiety), it is questionable whether we can speak of the cessation of motivated reasoning or rather of the continuation of a different type of motivated reasoning. This would imply that through a change of valence and goal, a change of opinion - i.e., a conclusion based on new information—may occur, without an interruption of the fundamental principles of the mechanism of motivated reasoning. The results showing that, under the influence of anxiety caused by a sufficient amount of dissonant information, a change of opinion may occur, in fact suggest that the change of opinion is directly related to a change in emotion or affective valence. Such a conclusion is consistent with Westen's assertion that opinion change does not occur due to a change of information, but due to a change of emotion (Westen, 2007). Although it is, in fact, the new information that activates a new emotion, further information processing aligns with the emotion or affect. Before the affective tipping point, the individual unconsciously seeks ways to avoid negative emotions by defending

their initial attitude/motive, and after the affective tipping point, seeks ways to avoid the negative emotion of anxiety. However, in both cases, this constitutes reasoning guided by the avoidance of negative emotions.

8.5 Motivated Political Reasoning and Electoral Motivation

If we begin with the assumption that every form of political communication is ultimately aimed at influencing attitudes and behaviour, and that such influence is determined by the way political information is processed through motivated political reasoning, then it is justified to raise the question of whether the key issue in the domain of political communication is, in fact, the relationship between the effects of political persuasion (or more narrowly—political propaganda and political marketing) and motivated political reasoning. If we go a step further and adopt Ellul's thesis (1965) that the effects of political persuasion crucially depend on its influence on behaviour, then this question narrows its focus to the relationship between motivated political reasoning and the mobilisational role of political persuasion. In the context of posing such questions, it is important to reflect on the field of electoral motivation within political marketing, as in democratic societies, the act of voting represents the primary behavioural target of those who send political messages in order to influence behaviour. Before presenting the theory of motivated political reasoning, the fundamental elements relating to the concept of electoral motivation will be outlined here, given that this field precisely connects the significance of motive (which determines the previously mentioned directional goals in motivated political reasoning) and the effects of political marketing in the context of the mobilisational role of political persuasion. In other words, it is a matter of how political marketing activates the motivation that determines the goal of motivated political reasoning in order to influence the key act of political behaviour—voting in elections.

Slavujević (2007:107) defines electoral motivation as a concept that “encompasses a whole range of factors that determine a voter's decision whether to vote at all and, if so, for which party or candidate”. Various systematisations of these factors are present in the literature, and Slavujević and Atlagić highlight the classification by Haberle (R. Haberle), who divides electoral motivation into: **1. goal-rational motivation** (the voter votes for a given political subject because they regard that subject's general goals and policies as correct and acceptable), **2. emotional-affective motivation** (the voter votes for a given political subject based on positive feelings towards them), **3. referential motivation** (the voter votes for a given political subject because their opinion and behaviour have been influenced by members of a reference group), and **4. instrumental-rational motivation** (the voter votes for a given political subject because they expect to obtain a specific personal benefit as a result) (Slavujević, 2007; Atlagić, 2007). All four of these motivations, in the context of the concept of motivated political reasoning, in fact become the goal that initiates and directs the course of this cognitive process.

However, the majority of researchers dealing with motivated political reasoning agree that each of these motivations is activated under the influence of emotion, that is, affect (Lodge & Taber, 2012; 2013; Westen et al., 2006; Westen, 2007). In accordance with this premise, each of these motivations could be designated as emotional-affective, with the others serving to activate this type of motivation. Nevertheless, it is important here to distinguish whether the individual

reaches a conclusion under the influence of emotions at the conscious or unconscious level—that is, whether they explicitly state that they will vote for a particular candidate solely based on positive feelings towards them. Thus, goal-rational motivation, which implies that the voter votes for a given political subject because they believe their policy to be correct, can only conditionally exist within the framework of motivated political reasoning. If we start from the premise that all reasoning is motivated, then the fact that the voter believes a certain policy is correct does not make their decision rational. The voter is not aware that affect is activated at the earliest stage of reasoning and continues to direct the course of cognitive information processing, resulting in rationalisation rather than a rational conclusion (Lodge & Taber, 2012; 2013). What the voter perceives as a decision made through rational assessment of a particular policy is merely what occurs at the conscious level, whereas the path leading to such a conclusion is determined by the prior activation of unconscious mechanisms. Thus, in this sense, we can speak more accurately of rationalising rather than rational motivation. According to the criteria of motivated political reasoning (Lodge & Taber, 2013), the aforementioned goal-rational and emotional-affective motivations differ only in whether affect exerts an explicit (conscious) or implicit (unconscious) influence.

Likewise, in the case of referential motivation, it is necessary to distinguish whether the influence of the reference group members is conscious or unconscious. In other words, does the voter consciously regard their decision as rational, unaware that it was made under the influence of the reference group, or do they openly state that they wish to adopt the attitude shared by certain members of the reference group, without engaging in personal consideration of the political message in question? Finally, under the influence of instrumental-rational motivation, the individual may be most aware of the directional goal that determines the course and outcome of motivated political reasoning. However, even in this case, it is necessary to distinguish whether the individual is aware that they are making a decision based on the expectation that voting for a certain option will yield personal benefit - and whether they express this explicitly - or whether they rationalise such a decision through some other motivation. It is also necessary to distinguish whether such rationalisation is aimed at convincing oneself (the individual makes a decision based on personal interest but is unwilling to admit it to themselves and thus rationalises it by seeking other reasons) or others (they are aware of their motive but unwilling to admit it to others, because they consider it, for example, a socially undesirable reason). Within this interpretation, it is necessary to differentiate between the motive to undertake a given behaviour - in this case, to vote in a certain way (electoral motivation) - and the reasoning applied to the information the individual is exposed to prior to that act (motivated political reasoning). In practice, this means that the individual will make a decision about whom to vote for under the influence of motive, while up to the moment of voting, they will relate to all information (regardless of whether it supports or contradicts their decision) under the influence of motivated political reasoning.

The decision regarding whom people will vote for occurs under the influence of various determinants that shape electoral behaviour. Slavujević divides these determinants into **indirect** ones, which are based on the socio-demographic, economic, and psychological models of electoral behaviour, and **direct** ones, which are based on the attitudinal model and Campbell's model (2007). **The socio-demographic model** assumes that people vote in accordance with the socio-demographic group to which they belong (age and gender groups, educational categories, ethnic groups, affiliation with a particular class or profession, place of residence, etc.). Within this model,

several voting types exist, such as class-based, generational, or familial voting. Given that party identification is established affectively during an individual's early socialisation (Atlagić, 2007: 35), the influence of family, peers, and place of residence is evident. **The economic model** of electoral behaviour focuses on the rational voter who makes decisions based on their assessment of the state of the economy and their own economic position. Rational voter behaviour is discussed by Downs (A. Downs) in his work *An Economic Theory of Democracy*, in which he argues that a voter will participate in elections only if the expected gain outweighs the cost (Atlagić, 2007). However, in the context of motivated political voting, **the psychological model** of electoral behaviour is the most important, as it considers that "the voter is primarily inspired by affective, even subconscious impulses" (Slavujević, 2007: 111). In 2007, Slavujević wrote that such a model represents more of a hypothesis than an explanatory model, as it is difficult to operationalise within a system of reliable indicators, despite the undeniable significance of psychological factors.

Yet, precisely at the time when Slavujević published this assessment of the psychological model, the first neuroscientific studies began to emerge, demonstrating that affect underlies motivated political reasoning (Westen et al., 2006), and a few years later, Lodge and Taber developed a theory of motivated political reasoning based on the primacy of affect and subconscious mechanisms in the making of political decisions under the influence of motivated political reasoning. One might object that when Slavujević states there is only a certain degree of importance to the notion that the voter is primarily inspired by affective and subconscious impulses, he is not speaking of reasoning, but of the decision regarding whom to vote for. However, according to the theory of motivated political reasoning, that decision is itself made under the influence of prior information processing governed by this cognitive mechanism. On the other hand, in light of new neuroscientific research confirming the primacy of affect, the question arises whether we can still speak of the dominance of affect within a model called the "psychological" model of electoral behaviour, since the findings of such studies transcend the boundaries of psychology (even though they remain strongly and necessarily linked to the field) and enter the domain of cognitive and affective neuroscience.

The direct determinants of electoral behaviour refer to the factors that directly influence the way an individual will vote and, as already mentioned, two models are employed in the analysis of these determinants - the attitudinal model and Campbell's model (A. Campbell). The attitudinal model appears in several variations, the most common being the so-called distance model. This model was adopted from commercial marketing, and its basic premise is that in the mind of every voter there exists "an image of the ideal candidate or party, and the greater the difference between their perception of the ideal and the actual candidate, the less likely they are to vote for that candidate" (Slavujević, 2007: 112). According to this model, the same logic applies to the relationship between the voter's attitudes and the attitudes expressed by a given candidate during the campaign. However, returning to the principles of motivated political reasoning, even if a candidate supported by the individual expresses views contrary to their own, it is possible that the cognitive processing of such information results in a rationalisation of what the candidate is saying, rather than in the detection of an inconsistency between the voter's views and the candidate's expressed positions. In this case, the key issue becomes whether the affective relationship and unconscious mechanisms are more strongly activated in order to defend the voter's attitude or their motive to support that candidate. Thus, the outcome of such motivated political reasoning is determined by the underlying basis of its directional goal.

The Campbell or so-called Michigan socio-psychological model represents an advanced variant of the attitudinal model, and it identifies the following as key direct determinants: (1) party identification, (2) the image of the party and the candidate, and (3) issues. **Party identification** is described as “the most general and most significant factor in the voting decision, while any potential ‘deviation’ from voting in line with party identification is explained by the influence of the other two direct determinants” (Slavujević, 2007: 112). Slavujević defines party identification as “a feeling of attachment to a particular political party, as the voter's acceptance of its ideological and political positions, forms of political action, and leaders, participation in its activities and voting for its candidates, and thereby also as the establishment of a clear distance from other political parties” (Slavujević, 2007: 113). It is noteworthy that the very first word used by Slavujević in defining party identification—as the most important factor in voting behaviour—is “feeling”. Atlagić notes that the authors of the study *The American Voter* place party identification within the broader framework of identification, which they define as “an affective orientation of the individual towards a significant group in their environment” (Atlagić, 2007: 34). Indicating that the issue of party identification falls within the domain of emotion and affect is consistent with the premise of the concept of motivated political reasoning regarding the primacy of affect and unconscious mechanisms.

The influence of party identification on motivated political reasoning can be viewed as the influence of belonging to an identity-defining affinity group, under which individuals are expected to assess information selectively through schemas adapted to the criteria of the group to which they belong (Kahan, 2016: 2). Beliefs generated in this manner reinforce behaviour that sustains the identity of the group to which the individual belongs (Kahan, 2016: 2), that is, an individual whose views have been shaped under the influence of the political party they identify with is expected to behave in ways that reflect the identity of their political party (primarily by voting for that party in elections). When speaking of party identification as one of the key, if not the most significant, determinants of voting behaviour (Slavujević, 2007), and its influence on political attitudes and behaviour (Bolsen, Druckman & Cook, 2014), recognition of its significance is further emphasised by the fact that Lodge and Taber term the goals which Kunda (1990) refers to as directional goals using the phrase that could be translated as *follower goals* and literally as *partisan goals*.

In order to better understand the influence of party identification on individuals’ attitudes and behaviour, and thus its role in motivated political reasoning, we shall briefly examine its key characteristics and functions. Slavujević (2007) identifies the following basic characteristics of party identification:

(1) A more enduring character (referring to the fact that individuals do not easily change their party affiliation, even when there is a change in leadership or the positions that the party advocates). In this characteristic we can clearly recognise the mechanism of motivated political reasoning. Logically, individuals would be expected to approach a political party based on the positions that the party advocates, which would imply that a change in these positions should, if the individual were reasoning rationally, at least lead to a reconsideration of their party affiliation. However, in practice this is rarely the case, and the reason for changing political parties usually does not lie in a change of its political stances. In 2012, the Serbian Progressive Party won the elections on the basis of a campaign that promised to nullify all that the previous government had

negotiated in the Belgrade - Pristina dialogue. Upon taking power, they nullified none of the negotiated points; instead, they continued the dialogue in Brussels and signed the Brussels Agreement. This shift in one of the central points of their pre-election platform did not lead their members to leave the party or cease their support. This example aligns with the characteristic of party identification regarding its enduring nature, but also with the characteristics of motivated political reasoning, wherein contradictory information (in this case, the shift in stance towards the Belgrade–Pristina dialogue and agreements) is processed through rationalisation and can even lead to the strengthening of the initially held position (in this case, support for the Serbian Progressive Party).

(2) The stronger the party identification, the more likely an individual is to behave in accordance with the policies of the party with which they identify, including voting for it. This feature of party identification is consistent with the characteristic of motivated political reasoning, which holds that the stronger the commitment to a directional goal - that is, the stronger the associative connections within the activated network in long-term memory and the affect that is triggered in the initial phase (Lodge & Taber, 2013) - the greater the likelihood that the final conclusion or decision will be made under the influence of motivated political reasoning, regardless of new information and evidence that may contradict the initially held position.

(3) The stronger the party identification, the more pronounced the processes of selective exposure, perception, reception, and memory of content. This characteristic is also aligned with the mechanisms of selective memory and selective attention, which were discussed as some of the key mechanisms underpinning motivated political reasoning (see Lodge & Taber, 2012; 2013; Druckman, 2012; Westen, 2007; De Houwer & Hermans, 2010).

When it comes to the functions of party identification, Slavujević (2007) identifies the following: (1) the fulfilment of the need for political belonging and support within such belonging, (2) the attainment of self-esteem through “valuable” political subjects as role models, (3) the provision of a certain orientation within the political world, and (4) the stabilisation of the number of parties on the political scene, the party system, and the political system as a whole, among others. From the listed functions, it is evident that most of them relate to internal psychological mechanisms within the individual, which are, at either a conscious or unconscious level, accompanied by affect. When discussing the relationship between party identification and its mobilisational role, it is also important to mention which aspects are most commonly the focus of party identification research. Slavujević (2007) states that research in this field addresses: (1) the significance of party affiliation—the importance attributed to party belonging in relation to belonging to other groups, i.e., the real influence party identification has in shaping voters' attitudes and behaviour, (2) the prevalence of identification—the spread of feelings of attachment to specific parties among voters, (3) the stability of identification—the durability of attachment to a given party, and (4) the reasons why voters identify with specific issues, etc. Such research provides key data for so-called strategic studies, upon which a strategic approach to voters is formulated during election campaigns. However, when we observe these research foci and the relevance of their findings for strategic studies, it can be said that such research is essentially directed at identifying potential triggers of motivated political reasoning. In this sense, strategic studies—particularly those that concern voter communication and political persuasion—are, in fact, aimed at managing the process of motivated reasoning. This means that data on the sources of party identification, the

intensity of feeling towards the party with which one identifies, the durability of that feeling, and so on, in fact indicate the direction and strength of what is referred to within the framework of motivated political reasoning as a directional goal. In other words, the more information a political communicator possesses about the feelings and motives of individuals, the better they will be able to design a communication strategy to influence political behaviour among the electorate.

The image of the party and the candidate also represents a direct determinant of electoral motivation. Slavujević defines the image of a party as “a broad cognitive-emotional mental picture that people cumulatively develop about a particular political party over the course of their entire lives” (Slavujević, 2007: 115). This determinant is less stable than party identification, but more stable than an individual's relation to issues or candidates. Although party and candidate images are formally distinct, it is often very difficult to separate the influence of a leader's image from the party's image on a voter's decision (Atlagić, 2007: 97). The conceptualisation of party image as a cognitive and emotional mental representation points to the intertwining of cognition and emotion in motivated political reasoning. Such a mental image may be viewed as a source of motivation through which the individual will further process the information to which they are exposed. In accordance with the concept of motivated political reasoning, if an individual has already developed a positive image of a candidate or political party in long-term memory, that image will dictate the selection of information that enters working memory, establish a directional goal - or partisan goal—and lead to the rationalisation of a conclusion that confirms the validity of that mental image. The principle of bias functions similarly in the case of a negative mental image - in that case, negative information is selected and transformed into arguments used to rationalise why the candidate or political party, towards whom the individual has developed a negative image, is wrong, regardless of the logic, consistency, or truthfulness of the information provided.

Issues, or electoral programmes, are also among the direct determinants of electoral motivation. Slavujević defines issues as “a recognisable set of problems related to a particular group interest that can be isolated and which provoke (or may provoke) disputes in society” (Slavujević, 2007: 118). If we imagine a perfectly rational voter who votes on the basis of a rational evaluation of the political offer, their motivation to vote for a candidate or political party would follow a sequence in which they first adopt a particular stance and then vote for the party or candidate that advocates it. However, Slavujević points out that very few voters actually vote based on the issues presented in electoral campaigns, and that “issue-based voting may be an illusion behind which the rationalisation of the voting decision is concealed” (Slavujević, 2007: 118). This means that although the voter claims to vote for a certain option because it supports their views, in reality it is usually the reverse—due to their relationship with a candidate or political party, the voter forms their view on a particular issue, adapting it to the way that candidate or party presents it. This is clearly a textbook case of motivated political reasoning, with a strong emphasis on rationalisation as one of its key features.

Certainly, both the indirect and direct determinants of electoral motivation are far more complex than this overview suggests, and they imply not only an analysis of why individuals vote for a given political party or candidate, but also of why they change their decision. The mentioned determinants of electoral motivation are inseparable from the mechanism of motivated political reasoning, as they directly influence its course and dynamics. However, it is necessary to distinguish electoral motivation from motivated political reasoning. Electoral motivation

determines why we vote for a particular political party or candidate, while motivated political reasoning determines how we subsequently process information in accordance with that motivation. In other words, electoral motivation determines our decision, while motivated political reasoning determines the way we communicate that decision - to ourselves and to others - when confronted with information that contradicts it. Put simply, motivated political reasoning is the mechanism by which we defend our decision regarding how we will vote - a decision made under the influence of the indirect and direct determinants of electoral motivation.

9. Emotions as Information in Motivated Political Reasoning

9.1 The Relationship between Emotions and Deductive Reasoning

To understand the mechanism of motivated political reasoning, it is necessary to examine the relationship between emotions and deductive reasoning more broadly. The way in which emotions influence deductive reasoning forms the structural basis of the mechanism of motivated reasoning. As previously stated, the theory of motivated political reasoning and the JQP model do not address the influence of discrete emotions on this cognitive process, but only the influence of affect and affective valence. Although the authors of this theory provide justified reasons for such an approach, such as the impossibility of accurately measuring specific emotions during the phase of hot cognition (Lodge & Taber, 2013), this section offers a brief overview of the differences between the effects of incidental and integral emotions on deductive reasoning, as well as of studies that demonstrate the differing impact of discrete emotions.

Motivated reasoning is directly related to deductive reasoning, which refers to “reasoning from a set of premises, or determining whether an inference is valid or not based on some premises” (Blanchette & Richards, 2010: 300). In the case of motivated reasoning, the premises at the conscious level include new information encountered by the individual, as well as affect and concepts activated from long-term memory, either consciously or unconsciously. The very word “reasoning” points to reason as the central notion - indeed, in English, the word “reasoning” is derived from “reason”. In the literature on reasoning, just as in the literature on decision-making, the focus is on rational thought, and reasoning is typically cited as the human capacity for sophisticated abstract processing (Blanchette & Richards, 2010: 299). However, the study of reasoning is inseparable from the study of emotional influence on that process, and the majority of studies addressing this area and the relationship between emotions and reasoning are focused on deductive reasoning paradigms. Reasoning and decision-making can be linked through the thesis that decisions follow two paths - one based on framed reasoning, and the other directly emotional, with the emotional components either directly influencing decisions or indirectly shaping reasoning by tagging it with a positive or negative signal that narrows the decision space based on past experience (Castells, 2013). These signals are then connected to the body and become somatic markers (Damasio, 1994; Castells, 2013). One of the systematisations of such studies was carried out by Blanchette and Richards (2010), who categorised the studies into those examining the impact of integral emotions and those examining the impact of incidental emotions on deductive reasoning. In their analysis of these studies, which will be presented here, they also explore whether different emotions promote different types of reasoning.

This brief review of the studies is presented solely to indicate that different emotions lead to different reasoning styles, and to demonstrate that incidental and integral emotions exert different types of influence on reasoning. Without the ambition to present in detail the studies and the systematisation carried out by Blanchette and Richards, the intention is to show that such research can contribute to a better understanding of the process of motivated reasoning, even beyond the exclusive focus on the factor of affective valence. Although it is the valence of affect

that primarily determines the course and outcome of motivated reasoning, highlighting that different emotions exert different effects on deductive reasoning may help to clarify how bias is expressed or how a particular tone is imparted to rationalisation during the process of motivated reasoning.

9.1.1 Incidental Emotions and Deductive Reasoning

One of the earliest studies on the influence of emotions on reasoning was Lefford's study, in which participants were tasked with evaluating the logical validity of 20 emotional syllogisms and 20 neutral ones (Lefford, 1946). The results of this study showed that participants made more errors when evaluating emotional syllogisms, leading to the conclusion that, under the influence of an emotional reaction, individuals lose the capacity to reason accurately. Interestingly, the results of all subsequent studies in this field, though focusing on different aspects, to a greater or lesser extent, pointed to the same conclusion - that the more emotions are activated, the less logical the reasoning becomes. Precisely for this reason, Lefford, as one of the pioneers in the study of emotional influence on reasoning, argued that rational thought should be immune to emotional influence and that only such reasoning could lead to successful resolution of social and economic problems (Lefford, 1946). Clearly, Lefford did not share the view of Lodge and Taber (2012), who posited that all reasoning is motivated, for this would imply that all reasoning is flawed, given that motivated reasoning is predominantly governed by affect.

Comparing Lefford's mid-20th-century conclusions, Blanchette and Richards observe that similar findings were reported by Oaksford and colleagues by the end of the century (Oaksford et al., 1996, as cited in Blanchette & Richards, 2010), in experiments where participants' moods were manipulated using video clips. The results demonstrated that both positively and negatively induced moods led to more reasoning errors than neutral moods. They also refer to findings from experiments that illustrate the effect of affective content - specifically, that individuals exposed to emotional material are less likely to reach logically valid conclusions than those exposed to neutral content (Blanchette & Richards, 2010). It is important to note that all the studies cited by Blanchette and Richards indicate that emotions, or affect, reduce the logical validity of reasoning, regardless of emotional or affective valence. The results from this domain further suggest that manipulating incidental emotions - whether through mood induction or classical conditioning - produces similar weaknesses in logical reasoning (Blanchette & Richards, 2010).

When we discuss the general impact of incidental emotions on deductive reasoning, we are merely affirming that such an influence exists and that it tends to weaken logical validity. However, when we address specific incidental emotions, we are in fact exploring how those emotions affect reasoning style. In other words, the first case answers the question "Does an influence exist?", while the second addresses "How does it manifest?". Blanchette and Richards began with studies showing differential impacts of positive and negative incidental emotions on reasoning style, that is, on the influence of emotional valence. The results of one experiment (Mackie & Worth, 1989, as cited in Blanchette & Richards, 2010) - which investigated whether certain emotional valences lead to heuristic processing of information - revealed that a positive mood decreases systematic processing and encourages heuristic, superficial information

processing. That experiment showed that participants under induced positive mood were less likely to evaluate the strength of presented arguments, making judgements based on the source (whether an expert or not). On the other hand, studies show that negative moods lead to more systematic and careful processing of information, and that individuals under the influence of sadness or negative mood are less prone to superficial reasoning. These findings can, at least conditionally, be linked to the thesis that the affective tipping point in motivated reasoning, triggered by increased anxiety, leads to more accurate conclusions (Redlawsk, Civettini & Emmerson, 2010).

Studies examining how different emotions affect reasoning styles have also shown that the type of emotion activated determines how an individual will reason deductively. Some studies, for instance, suggest that the emotion of anger increases susceptibility to manipulation through stereotypes, and that anger produces effects similar to those of positive emotions in terms of reliance on heuristics (Blanchette & Richards, 2010). Unlike the results of studies on the effects of anxiety (Redlawsk, Civettini & Emmerson, 2010), the emotion of anger - even in low-threat environments - tends to direct attention towards processing anger-inducing stimuli (Castells, 2013: 148). Blanchette and Richards note that the effect of emotions on reasoning style may be related to working memory, the strategic use of mood as information, or the so-called priming of knowledge structures (Blanchette & Richards, 2010).

9.1.2 Integral Emotions and Deductive Reasoning

In contrast to incidental emotions, the influence of integral emotions on deductive reasoning refers to the impact of emotions that are directly related to the task itself, or the subject of the reasoning process. In the case of integral emotions, they are embedded in the very stimulus, and the effect of these emotions can thus be compared to the effect of emotional stimuli previously discussed. In their review of studies concerning the influence of integral emotions on deductive reasoning, Blanchette and Richards (2010) highlight in particular those studies that examine the impact of intense emotional experiences on reasoning. A significant observation is that the results of such studies differ depending on whether the experiment involves artificially induced laboratory conditions or situations in which participants possess personal emotional experience that is directly related to the stimulus. A large number of such studies have shown that individuals sometimes reason more logically about emotional content than about neutral content (Blanchette & Richards, 2010). Thus, the use of intrinsically emotional material does not necessarily lead to less logical conclusions, and in some cases even leads to normatively more accurate responses.

When comparing the influence of incidental and integral emotions on deductive reasoning, although in both cases the key mechanism is located in working memory, it is possible to formulate the hypothesis that incidental emotions may divert attention away from task-relevant information, whereas integral emotions may increase attention and focus on such information (Blanchette & Richards, 2010). There are certain speculations and empirical findings suggesting that affective states can consume working memory, as is the case with anxiety, since worry may deplete processing capacity in working memory (Blanchette & Richards, 2004: 751). The results of research on the influence of emotions on reasoning demonstrate unequivocally that this influence exists, while the manner in which it occurs depends on multiple factors. As shown, incidental and

integral emotions exert different effects, but also each specific emotion, regardless of whether it is directly related to the task or not, influences the style of reasoning.

9.2 From Emotion to Action – The Theory of Action Readiness

Contemporary theories concerning affect, particularly those with evolutionary foundations, begin with the assumption that emotions were shaped through natural selection as adaptive systems enabling rapid and efficient responses to environmental changes (Ekman, 2011). Evolutionary theories of emotion thus regard emotions as biologically innate mechanisms for human adaptation to their environment. Just as emotions once served our ancestors by triggering the impulse to flee when encountering a wild animal - prior to the development of consciousness in humans - so, according to these theories, the same mechanisms function today in everyday situations. Ekman particularly emphasises the characteristic of emotions as preparing us to resolve important events without the need to think about what we are doing, stating that “immediately after the onset of emotion, in those first thousandths of a second, it takes control of what we do, say, and think” (Ekman, 2011: 58), and he provides the example of a person automatically turning the steering wheel to avoid a collision while simultaneously pressing the brake pedal with their foot. Thus, in its very biological foundation and evolutionary heritage, emotion inherently includes an action dimension. In the examples given, emotion would be of little use in the face of a wild animal or a traffic collision if it did not imply simultaneous action - fleeing or turning the steering wheel. Furthermore, in such circumstances, emotion would merely serve an informational function to be cognitively processed, leading to a conscious decision to act - one that would not correspond with the timeframe required for action to avoid danger (or, in the language of evolutionary theory, to adapt to the environment).

In this sense, emotions generate a specific kind of action-readiness, referring to a psychophysiological state that enables the organism to behave in a certain way. It is precisely on these foundations that the theory of action - readiness is built - a theory which addresses the relationship between emotion and action, or behaviour. The author of this theory, Frijda (N. H. Frijda), begins from the premise that emotions are, in essence, our responses to emotional events, and that one of the key responses is action - readiness, which he defines as “readiness to achieve a particular aim, such as protecting oneself, opposing someone, or obtaining intimate proximity” (Frijda, 2007: 3). According to him, the state of readiness is a phenomenon that can be felt and verbally reported by an individual, just as emotions are experienced. When discussing the theory of action - readiness, it is important to note that Frijda maintains that “if an event has no repercussions on an individual’s inclination to act, one will hesitate to call it an emotion, except perhaps in the case of emotion evoked by art” (Frijda, 2007: 4). Thus, for the author of the theory of action-readiness, emotions are not merely related to action - emotion does not exist without at least an inclination towards action. Nevertheless, he acknowledges that the link between emotion and action is variable - that there are emotions without action, and actions without evident emotion (Frijda, 2004). Such a statement raises the question of what determines the link between action and emotion - i.e., when does emotion lead to action-readiness and ultimately to action itself? The key mechanism that determines this relationship is motivation (Frijda, 2004).

Precisely because of the importance of motivation in establishing the link between emotion and action, some authors go a step further by focusing on the role of motivation and introducing the theoretical construct of motivational readiness (Kruglanski, Chernikova & Schori-Eyal, 2014). This construct is grounded in findings from motivational research across various domains. The construct of motivational readiness consists of two basic elements - the “want” element, which refers to the individual’s currently active desire, and the “expectancy” element, which refers to the individual’s expectation regarding their ability to fulfil the existing desire (Kruglanski, Chernikova & Schori-Eyal, 2014). This construct assumes that the presence of a desire is a prerequisite for readiness - without desire, and the motive it generates, motivational readiness cannot exist. On the other hand, motivational readiness may exist without expectancy. Motivational readiness can be viewed as one of the steps that may - but does not necessarily - lead to action readiness and to action itself. Thus, motivational readiness is a necessary but not sufficient condition for action and is primarily oriented towards goal-setting. Desire and expectancy, as the core elements of motivational readiness, lead to the establishment of a goal, which may then lead to action - provided that all necessary conditions are fulfilled for the motive and the goal to be transformed into action (Kruglanski, Chernikova & Schori-Eyal, 2014).

Motivation for action occupies a central place in emotional phenomena because it is responsible for two key sets of phenomena within emotions that correspond to two traditional features of motivation: the phenomenon of intention and the phenomenon of energising behaviour (Frijda, 2004: 159). Energising behaviour refers to the fact that behaviour occurs even when it entails effort and “costs”. In other words, action has a certain value, and it is precisely the evaluation of action that drives human behaviour. This evaluation of action is calculated as the difference between the value of the stimulus and the costs of the action (Suri, Gross & Sheppes, 2015). Research findings on action readiness show that readiness increases when the action is frequently or recently undertaken. Conversely, if an action has not been undertaken recently or frequently, the readiness to engage in that action decreases. If the “costs” of the action are perceived as low, the individual will undertake the action even in the case of a lower valuation of the stimulus. Translated to the field of political persuasion, this would imply that a lower intensity of persuasive effort is required if the aim is to induce an individual to engage in an action that they perform often or have performed recently. Conversely, in the opposite case, a stronger stimulus is needed in order for the individual to take action, that is, to change their behaviour.

The process through which action-readiness occurs, according to Frijda (2007), involves the following elements: (1) an event (i.e., stimulus), followed by (2) appraisal, which simultaneously leads to (3) action readiness, affect, and arousal, and finally results in (4) behaviour. However, it is important to emphasise that this is a dynamic process in which this sequence can only be discussed conditionally, as some of these processes occur simultaneously, and all elements exert direct or indirect influence on each other. For example, emotions are activated during the appraisal phase, which is itself influenced by action-readiness and behaviour, and so on. For this reason, this model should primarily be understood as one that identifies the existence of and interaction between different elements within the process that includes action readiness, rather than as one that prescribes a fixed sequential order of activation for those elements.

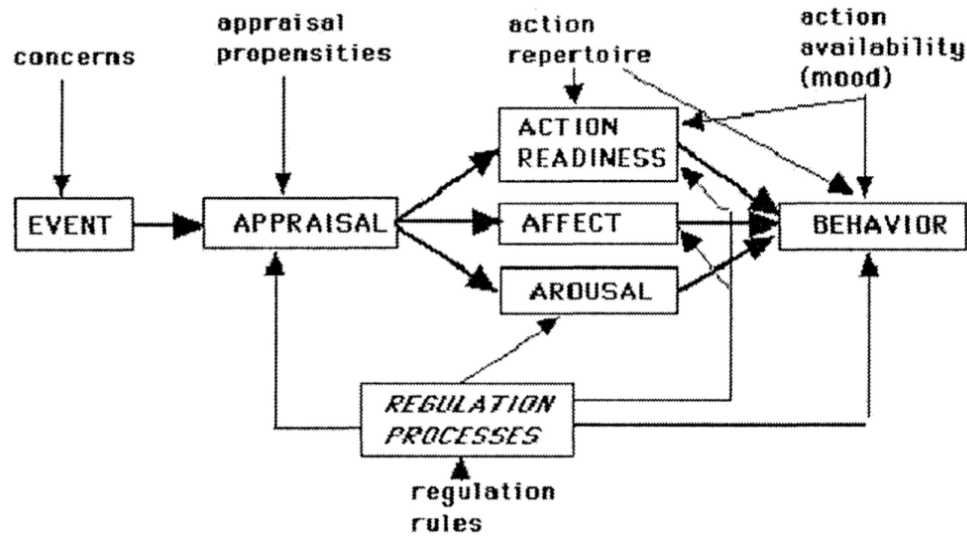


Figure 27 Emotion process (Frijda, 2007: 20)

If we compare the mechanism of motivated reasoning with the mechanism whereby, under the influence of emotion and motivation, action readiness leads to a goal and ultimately to action or behaviour, we observe that in both cases the key determinant is emotion - or more precisely, affect - which is directly linked to motive and goal. In the case of motivated reasoning, the final outcome is a conclusion shaped by motive and emotion, while in the case of action readiness, the same influence leads to a different final outcome - action, that is, behaviour. However, if the goal within motivated reasoning (in accordance with the partisan goal or the accuracy goal) is defined as reaching a conclusion to undertake a specific action or to change behaviour, then motivated reasoning in fact integrates action readiness within its own mechanism. If we translate all of this to the domain of political persuasion and Ellul's thesis (1965) on the orientation of propaganda - or persuasive messages - towards behaviour through irrational means, it is reasonable to conclude that, in this context, the success of such a message depends on its appeal to a motive that will activate emotion and generate a state of action readiness in accordance with the intended goal. In that case, the emotion evoked by the activation of a particular motivation becomes the information that signals the individual to move from a state of motivational readiness into a state of action readiness.

9.3 The Political Brain Is an Emotional Brain – Westen's Experiment

Almost a century ago, Freud (S. Freud) described as a defence mechanism the process through which individuals adapt their cognitive processing of information in order to avoid negative emotions (1933). The description of such a defensive process corresponds in many aspects to motivated reasoning, which is defined as "a form of implicit affect regulation in which the brain converges on solutions that minimise negative and maximise positive affective states" (Westen et al., 2006; Westen, 2007). As previously shown, the cognitive mechanism of motivated

political reasoning is well established in the literature and formalised through various theories and models. However, in 2006, Westen and his colleagues investigated this mechanism using neuroscientific methods, specifically examining how individuals process political information under the influence of motivated reasoning. In presenting their study, the authors emphasised that models dominant in political science, cognitive science, economics, law, and related disciplines often presume that individuals make evaluations under the influence of bounded rationality, with these limitations reflected in shortcuts and heuristics (Kahneman & Tversky, 2000). However, such models tend to ignore an important factor: emotionally biased or motivated reasoning. By conducting an experiment that allowed direct observation of brain activation during the processing of political information influenced by motivated reasoning, Westen and his team sought neuroscientific evidence for the central role of emotion in this process. Although this experiment has been mentioned previously, its procedure and results will now be presented in more detail. In essence, the findings of this experiment may be summarised as the conclusion that the political brain is, in fact, an emotional brain (Westen, 2007).

This study is of exceptional significance for the field of political communication, particularly political persuasion, as it represents the first study to investigate the neural processes involved in motivated reasoning and the implicit regulation of affect, and one of the first to explore the neural underpinnings of any form of political decision-making. For the experiment, conducted during the 2004 United States presidential election, a total of 30 participants were recruited—15 committed Democrats and 15 committed Republicans. In addition to being dedicated supporters of one of the two political parties, eligibility criteria included being right-handed and aged between 22 and 55. During recruitment, participants completed a questionnaire assessing political attitudes (based on elements of the National Election Studies – NES) with the aim of determining the strength and nature of party affiliation. Participants also completed a so-called feeling thermometer—a questionnaire in which they reported, on a scale from 1 to 100, their feelings towards particular candidates (ranging from “cold” to “hot”), rated how frequently the candidates evoked certain emotions (such as anger, hope, fear, disgust, etc.) on a scale from 1 to 4, and assessed the degree to which the candidates possessed particular characteristics (e.g., moral, intelligent, dishonest, out of touch with ordinary people, etc.), also on a scale from 1 to 4. To be included in the experiment, participants had to self-identify as strong supporters of either the Democratic or Republican Party and report a difference of more than 30 points on the feeling thermometer between their evaluations of the two parties or candidates.

As stimuli during the experiment, participants were presented with six sets of statements related to Bush (G. Bush), Kerry (J. Kerry), or a neutral male figure (T. Hanks, H. Aaron, V. Stiron). Although most of the statements were fictional, their plausibility was ensured by combining them with real quotes or events. Each of these sets consisted of seven slides containing verbal material, designed to show a clear contradiction between a candidate’s words and actions. The first, initial slide presented a typical quote from the candidate. The second slide introduced an evidently contradictory statement, suggesting an inconsistency between the candidate’s words and actions. On the third slide, participants were asked to consider whether the candidate’s statements and actions were inconsistent, and on the fourth slide, they were asked to rate the level of inconsistency or contradiction on a scale from 1 to 4. The fifth slide included a text designed to help participants rationalise the contradiction (an exculpatory statement). The sixth slide posed the same consideration question again—asking whether, in light of the exculpatory information, the

contradiction between the first and second statements now seemed less pronounced. Finally, on the seventh slide, participants were asked once again to rate, on a scale from 1 to 4, the degree to which they agreed with that final assessment.

As illustrated in FIGURE (number), the experiment was divided into seven phases, each represented by a different slide labelled as follows: statement, contradiction, consider 1, rate 1, exculpatory, consider 2, and rate 2.

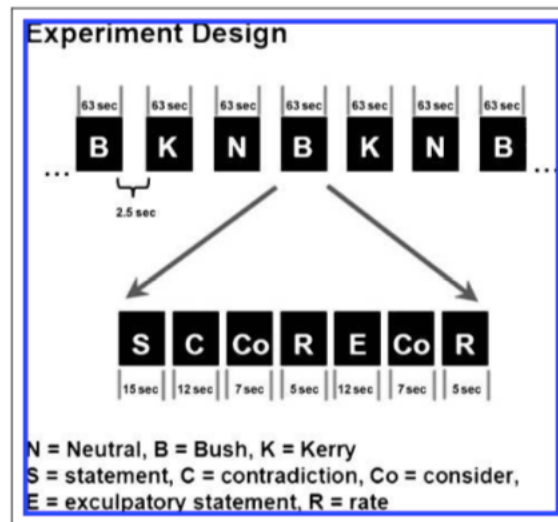


Figure 28 Experimental design (Westen et al., 2006: 1949)

During exposure to the stimulus, that is, the presented slides, participants underwent brain activity measurement via fMRI (functional magnetic resonance imaging). The study was conducted using a 3-T Siemens Magnetom Trio scanner at the Biomedical Imaging Technology Center, Emory Hospital. The hypothesis was tested by applying contrast analysis to all six stimulus sets across the experimental conditions (same party, opposing party, and neutral target). Three primary contrasts were tested. First, neural responses within the “same party” condition (evaluation of Bush by Republican supporters and of Kerry by Democratic supporters) were compared to responses in the neutral condition (e.g., evaluations of statements by actor Tom Hanks) during the presentation of the contradiction slide.

The second contrast focused on the neural activity observed during the rationalisation slide in comparison to the contradiction slide. This comparison is significant because the contradiction slide involves reasoning in the presence of emotional conflict, whereas the rationalisation slide—which facilitates justification of the inconsistency between words and actions—does not activate such conflict. In other words, the focus of this contrast is the conflict between conclusions based on the evaluation of evidence (cognitive constraints) and desired conclusions (emotional constraints) (Westen et al., 2006). Finally, the third contrast, the most complex, involved a test of interaction between target (same party vs. neutral target) and phase (contradiction vs. rationalisation).

The behavioural data provided strong evidence of the activation of the motivated reasoning mechanism. As shown in Figure 29, supporters of one party were more likely to perceive contradictions in the candidate of the opposing party, and vice versa. That is, despite being presented with explicit evidence via the slides, participants arrived at conclusions consistent with their desired goal. These results clearly demonstrate activation of the partisan goal (Lodge & Taber, 2013), or directional goal (Kunda, 1990). Given the existing body of knowledge on how the mechanism of motivated reasoning functions, these results were expected. However, what Westen and his colleagues' experiment contributes that is novel is the presentation of the neural bases underlying the activation of motivated political reasoning.

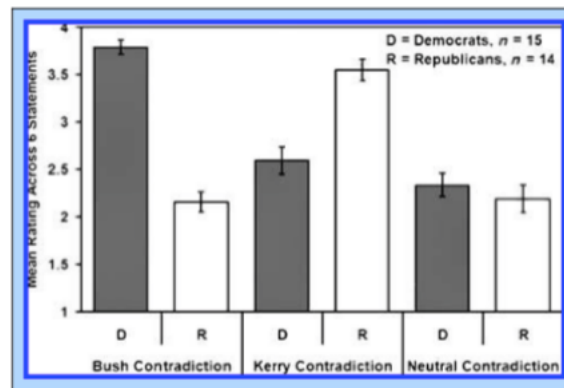


Figure 29 Subject's ratings of perceived contradictions (Westen et al., 2006: 1951)

The authors of this study state that it is the first study to describe the neural bases of motivated reasoning, as well as closely related constructs such as implicit affect regulation, psychological defence, bias, and the neural underpinnings of political processes and decision-making. As previously mentioned, the experimental design was structured to induce a conflict between the constraints imposed by evidence and reason (i.e. data showing that a candidate acted inconsistently or contradictorily) and those imposed by emotion (i.e. strong feelings towards a political party or its candidate) (Westen, 2007). The aim of the experiment was to examine, using functional magnetic resonance imaging, how the brain resolves the conflict between information and desire.

The results showed that when participants (supporters of particular political parties) were confronted with threatening information (in relation to their attitude or desire), a network of neurons was activated to reduce stress. The brain registered the conflict between information and desire and began searching for ways to avoid negative emotions. Westen notes that evidence of the brain's success in this process was visible in the fact that most participants denied perceiving any conflict between the words and actions of the candidate they supported (Westen, 2007). The results of the experiment demonstrated that participants were able to resolve the conflict even before reaching the third slide; that is, “the neural circuits charged with the regulation of emotional states seemed to recruit beliefs that eliminated the distress and conflict partisans had experienced when they confronted unpleasant realities” (Westen, 2007: xiv).

The results confirmed all four previously stated hypotheses (Westen, 2007: xi):

- It was expected that threatening information – even if partisans did not consciously interpret it as threatening – would activate neural circuits previously associated with negative emotional states.
- It was expected that activation would be observed in brain regions strongly implicated in emotion regulation. The underlying assumption was that what is often regarded as reasoning in politics is, more often than not, rationalisation – driven by the need to arrive at emotionally satisfying conclusions.
- It was expected that the brain would exhibit signs of conflict between what a rational person would believe and what a party loyalist would want to believe. Accordingly, activation was anticipated in the region responsible for conflict monitoring and resolution.
- Finally, it was expected that participants would rely more on “gut feelings” than on data. Thus, strong activation was not anticipated in brain areas typically engaged in previous studies of reasoning, even though the task explicitly involved reasoning.

The results confirmed all four hypotheses, but also revealed an unexpected finding: when participants sought to reason their way to incorrect conclusions, not only were the neural circuits associated with negative emotion deactivated, but those associated with positive emotion were activated. In other words, when faced with negative information regarding the political party or candidate they supported, participants were not merely trying to feel better – they were trying to feel good (Westen, 2007). Brain scans taken during this form of motivated reasoning revealed activation of the ventromedial prefrontal cortex, anterior cingulate cortex, posterior cingulate cortex, insular cortex, and lateral orbital cortex – regions implicated in the implicit regulation of emotion and psychological defence (Westen et al., 2006).

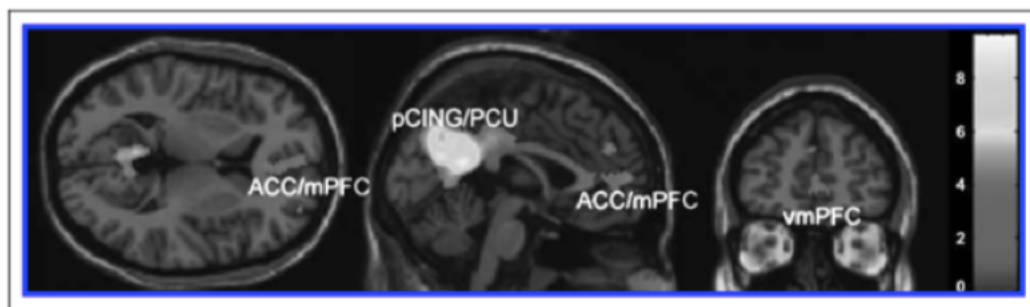


Figure 30 Three orthogonal views of the areas of activation that differed when subjects were confronted with contradictory information (Westen et al., 2006: 1951)

More than a decade later, a similar experiment was conducted which also confirmed the role of emotions in the process of motivated political reasoning. The study based on the results of this experiment explored the neural correlates of maintaining an individual's political beliefs when confronted with evidence contradicting those beliefs (Kaplan, Gimbel & Harris, 2016). The participants in this experiment were 40 liberally oriented individuals who were presented with arguments strongly opposing their political and non-political beliefs. The experiment also employed functional magnetic resonance imaging (3T Siemens MAGNETOM Trio System). The results showed that different areas of the brain are activated when an individual is confronted with

arguments or information that threaten their political beliefs compared to those that threaten their non-political beliefs. The participants in this experiment demonstrated greater resistance to arguments that contradicted their political beliefs (Kaplan, Gimbel & Harris, 2016: 5).

The findings indicated that when individuals are faced with information that challenges their deeply held beliefs, brain regions responsible for internally directed cognition are activated, highlighting the significant role of emotions in the persistence of belief. Individual differences in susceptibility to persuasion, according to the results of this experiment, were associated with differences in the activation of the insular cortex and the amygdala – areas of the brain directly involved in emotion and affect. In particular, the anterior insula is, for instance, responsible for integrating affective information into the decision-making process (Kaplan, Gimbel & Harris, 2016: 8). Increased amygdala activity may be linked to increased scepticism regarding presented material and may represent an important neural signal for the persuasive potential of the information (Kaplan, Gimbel & Harris, 2016). Precisely the link between resistance to belief change and the activation of the insular cortex and amygdala supports the important role of emotions in this process. The authors of this study conclude that, based on the findings of their experiment, the way emotions preserve the homeostatic integrity of the organism also applies to those aspects of our mental lives with which we strongly identify – including our beliefs.

The activation of brain regions responsible for emotion during the process of motivated political reasoning, and the fact that neural circuits associated with the execution of so-called cold reasoning tasks and with conscious, explicit emotion regulation are not activated during this process, point to the dominant role of emotion in the processing of new political information. Furthermore, findings from studies indicating that different brain areas are activated when new information “challenges” political beliefs compared to non-political beliefs, show that emotions are particularly active in directing the way political information is processed. In accordance with such findings, emotions in the process of motivated reasoning can in fact be viewed as information (Lodge & Taber, 2012; Westen, 2007; Frijda, 2000; Marcus, 2000). Given that the cognitive processing of information is more influenced by the emotions that are activated in relation to a motive than by the content of the information itself, emotions effectively assume the role of information. In other words, “feelings become information” (Lodge & Taber, 2012: 184).

Considering the findings of studies on motivated reasoning, and particularly those on its neural underpinnings, it can be concluded that information essentially serves as a trigger for affective states, that is, emotions. However, it is necessary to distinguish between the figurative designation of emotions as information and information that merely carries emotional content. The informational value of emotions lies in the fact that emotions possess an inherent cognitive structure and represent a sort of model of the situation to which the emotion responds (Frijda, 2000: 26). The function of emotion as information in the process of motivated reasoning is related to the previously described function of emotions in the context of transferring concepts from long-term to working memory – that is, the way in which previous experiences are recalled based on their emotional valence and the strategic relevance of those experiences (Marcus, 2000).

In line with findings concerning the neural bases of motivated political reasoning, Westen concludes that changes in political attitudes under the influence of motivated reasoning do not occur through exposure to new information or insight into it, but rather through changes in emotion

(Westen, 2007). In the field of political persuasion, this would imply that the sender of a political message addresses the emotions and affective states of recipients, and only indirectly their attitudes and behaviours. To understand the way in which individuals emotionally respond to a political situation means to understand the way they comprehend their circumstances (Marcus, 2000). In other words, the effect of political persuasion depends more on knowing and assessing how individuals associate affects and emotions with certain concepts, than on the accuracy, persuasiveness, or strength of arguments, evidence, and information contained in the political messages conveyed. Precisely due to the powerful influence of emotion on the way we make political decisions, and the inferiority of logical strength of messages compared to their emotional potency, Westen refers to the political brain as the “emotional brain” (Westen, 2007).

10. Neuroscience

10. 1 Definition of the Notion of Neuroscience, Neuropolitics, and Neuromarketing

The study of how the human brain functions and the application of such knowledge in various domains long predates the emergence of neuroscience. The exploration of the human brain in Europe historically dates back to ancient Greece and Rome, and Thomas Willis of Oxford University published as early as 1664 the revolutionary work *Cerebri Anatome*, in which he described the anatomy of the brain. During the eighteenth century, studies began to focus on the existence and transmission of electrical signals through tissue, in experiments such as those conducted by Luigi Galvani and Alessandro Volta (Gross, 1987). Technological advancement along the historical path of expanding and systematising knowledge about brain function first led to the development of neuroscience in the mid-twentieth century, and then, in the early twenty-first century, to the emergence of interdisciplinary fields in which the social sciences apply the knowledge and methods of neuroscience.

Neuroscience is an interdisciplinary field that studies the structure and function of the nervous system at all levels - from molecular and cellular levels to complex mechanisms directly related to all aspects of human behaviour, thought, and emotion. From such a definition, it is already evident that the main limitation in precisely defining neuroscience lies in the fact that the term itself refers to a kind of boundlessness of all aspects of human existence. Accordingly, neuroscience could briefly be defined as the science of the neural bases of the human being's physical, mental, and emotional existence. The term *neuroscience* first appeared in the mid-twentieth century, as a result of the need to unify various approaches to understanding the nervous system, coming from disciplines such as biology, psychology, medicine, chemistry, physics, and computer science (Kandel et al., 2013). The unification of diverse approaches to the phenomena studied by neuroscience and its application in various fields is reflected in the large number of different definitions of neuroscience. Some of these definitions are presented here:

- In the narrowest sense, neuroscience is concerned with discovering how neurons are organised, how they communicate via synapses, and how these interactions are integrated into functional networks that enable complex behaviours (Bear, Connors & Paradiso, 2016). In line with this understanding of its scope, neuroscience can be defined as the study of the nervous system, the complex organ that controls our bodily activities and enables us to perceive, act, and think (Bear, Connors & Paradiso, 2016: 3).
- In contemporary definitions, neuroscience is often viewed as the central scientific discipline for understanding the interdependence of body and mind, aiming to answer some of the most fundamental questions about the nature of human existence (Churchland, 2013).
- Neuroscience seeks to understand how the nervous system governs behaviour and cognition by studying the biological basis of mental processes (Kandel et al., 2013: 5).

- The neurosurgeon Oktor defines neuroscience as the study of the nervous system concerned with the biological basis of consciousness, perception, memory, and learning. He states that neuroscience connects our observations of cognitive behaviour with the actual physical processes that underpin such behaviour (Oktor, 2006). Oktor highlights the significant fact that this field is still awaiting the construction of a neuroscience theory built upon the many existing fields of neurobiological research.
- Neuroscience studies the nervous system with the aim of understanding the biological basis of behaviour, thought, and emotions (Purves et al., 2018: 3).

Although different definitions of neuroscience emphasise different aspects of the field, what most definitions have in common is that they define neuroscience as the study of the nervous system in terms of its function as the biological foundation of behaviour, thought, and feeling. Depending on whether the focus is placed on cognitive processes or affect, a distinction is made between cognitive and affective neuroscience, which will be discussed later. When we speak of the relationship between the effects of political marketing and motivated reasoning in the context of investigating this relationship through neuroscientific methods, we are in fact referring to both of these types of neuroscience. Motivated reasoning represents a cognitive information-processing mechanism and, in that sense, neuroscientific examination of this process falls within the domain of cognitive neuroscience. However, if we start from the premise that this process is primarily influenced by affect, then it is equally valid for study within affective neuroscience. In this regard, it is important to emphasise that, just as there is a previously described “partnership” between cognition and emotion, this relationship is mirrored in the connection between cognitive and affective neuroscience.

The aforementioned development of interdisciplinary fields in which the knowledge and methods of neuroscience are applied in the social sciences - in the context of studying the relationship between motivated political reasoning and the effects of political marketing - can be linked to two such fields: neuropolitics and political neuromarketing. Without delving deeper into these domains, a brief overview of the basic definitions of these areas will be provided here. The purpose of this overview is solely to demonstrate the interdisciplinary potential of neuroscience in the fields of political communication and political marketing.

Political neuroscience (neuropolitics) is directed towards understanding the neural mechanisms underlying the processing of political information and decision-making (Haas, Warren & Lauf, 2020), while a deeper understanding of social behaviour through brain imaging studies has significantly contributed to the growing field of biopolitics (Friend & Thayer, 2011). Neuropolitics represents a relatively new field that connects political science and neuroscience, given that, until the mid-twentieth century, the relationship between political stimuli and responses was predominantly viewed through the prism of behaviourism, which excluded any consideration of the biological basis of responses to stimuli. Schreiber (D. Schreiber) notes that the resistance to connecting politics with brain functioning has deep historical and intellectual roots, and that only in the 1970s did research begin to emerge employing biological methods to investigate political questions (Schreiber, 2017). He identifies the first significant research in this field as the work of Sperry (R. Sperry) and his colleagues, who, in studies involving participants with damage to the part of the brain connecting the two hemispheres (corpus callosum), investigated how both

hemispheres react to political stimuli (one such stimulus was the presentation of photographs of Adolf Hitler and Richard Nixon). The essence of neuropolitics lies in the application of knowledge and methods from neuroscience to examine how the human brain responds to political stimuli. This encompasses the broadest range of political phenomena — that is, the areas of politics in which neuroscience may be applied. One example is the definition of neuroscience from a cultural perspective, whereby Connolly defines neuropolitics as “a politics through which cultural life mixes into the composition of body/brain processes” (Connolly, 2002: xii,xiii).

If political marketing is defined as a commercialised variant of political propaganda — an organised form of political persuasion — then political neuromarketing may imply the existence of political neuromarketing and political neuropsychology. Although the literature does not provide a term that explicitly links neuroscience to the domains of political persuasion and political propaganda in this way, political neuromarketing certainly entails an analysis of the concepts of propaganda and persuasion from the perspective of neuroscience. The application of neuroscientific knowledge in the field of political marketing is, in fact, not feasible unless that knowledge is integrated with an understanding of persuasion. While it cannot be determined with full certainty, it is believed that the term *neuromarketing* was first used in 2002 by Ale Smidts of Erasmus University (Cherubino et al., 2019). However, although the term was coined only at that time, the founder of neuromarketing is regarded as Gerald Zaltman of Harvard University, who in 1999 was the first to use functional magnetic resonance imaging (fMRI) as a marketing tool (Krajnović et al., 2012). Nonetheless, for the field of political marketing, the key question is what new insights neuroscience offers compared to the existing body of knowledge in traditional political marketing. This particularly relates to its contribution to understanding the neural bases of the mobilisation function of political persuasion - specifically, the field concerning individuals' motivations to take action under the influence of a political message. Ultimately, it concerns the application of neuroscience in improving our understanding of how individuals make political decisions - that is, how voters decide whom to vote for in elections. The key contribution of neuroscience lies in its capacity to provide insight into the functioning of the individual's brain even in cases of cognitive processes that are influenced by implicit and unconscious mechanisms.

Neuromarketing may be defined as the use of techniques for the experimental measurement of psychophysiological (or behavioural) activities based on theoretical assumptions of neuroscientific theories (Wannyn, 2017: 5). In the context of commercial marketing, Kotler and Keller define neuromarketing as a term that describes research on the effects of marketing stimuli on brain activity. Companies use technology (such as EEG) to investigate whether brand-related activities are associated with physiological responses, such as body temperature or eye movements, thereby recording how people respond to advertisements (Kotler & Keller, 2017: 111). The fact that this 2017 definition describes neuromarketing in a rather reductionist manner already points to two aspects of the difficulty in precisely defining this term – the rapid development of practice in this field, in relation to which a five-year span constitutes a distant past, but also the aspect which highlights the fact that it remains unclear whether neuromarketing belongs to methodology, science, or pseudoscience. These same challenges also apply to the field of political neuromarketing.

There is still no precise answer as to whether, when speaking of political neuromarketing, we are referring to a new form of marketing or merely a new method or technique within the

broader framework of political marketing. Precisely due to this, no consensus exists among authors not only regarding the definition of what constitutes neuromarketing, but also concerning the domain and field to which it belongs. Thus, neuromarketing may be described as a “field of research” (Murphy et al., 2008), a “field of neuroscience” (Perrachione & Perrachione, 2008), a “field of study” (Lee et al., 2007; Eser, Isin & Tolon, 2011), a “subfield of marketing” (Fisher et al., 2010), an “interconnection of perceptual systems” (Butler, 2008), a “scientific approach” (Seniot & Lee, 2008), a “part of neuroeconomics” (Hubert & Kenning, 2008), and a “separate scientific discipline” (Garcia & Saad, 2008)” (as cited in Fortunato et al., 2014: 205). According to Fortunato and his colleagues (2014: 205), regarding the function of neuromarketing, some authors view neuromarketing primarily as a means of acquiring scientific knowledge (Lee et al., 2007; Murphy et al., 2008; Fisher et al., 2010; Butler, 2008; Seniot & Lee, 2008; Eser et al., 2011), while others see it more as a potential tool for commercial marketing (Perrachione & Perrachione, 2008; Hubert & Kenning, 2008; Fugate, 2007; Orzan, Zara & Purcarea, 2012; Green & Holbert, 2012; Vecchiato et al., 2012). In the broadest sense, neuromarketing may be defined as the use of methods, techniques, and knowledge from the field of neuroscience in the domain of marketing — both commercial and political.

10.2 Neuroscientific Methods

Technological development in the field of *neuroimaging* has led to an abundance of new research regarding the structure and functions of the brain. New methods and techniques of neuroimaging have found their application in the field of marketing, with the ambition to better understand consumer behaviour through these methods. Such ambitions have also been transferred to the domain of the political marketplace, that is, political marketing. However, although technological advances in neuroscience have enabled us to “enter the mind” of the consumer in the case of commercial marketing, or the voter in the case of political marketing, initial enthusiasm was quickly confronted with the reality that these methods represent only an added value in relation to existing approaches. It is indisputable that neuroimaging provides unique information about human behaviour, thought, and emotion; however, such information becomes meaningful only in combination with other traditional methods from the field of marketing. Precisely for this reason, the application of these methods may be referred to as a “third dimension” in relation to traditional qualitative and quantitative research into consumer behaviour (Cherubino et al., 2019).

The added value offered by neuroscientific methods in researching voter behaviour within political marketing, therefore, cannot be interpreted as a “magical solution” through which, by observing brain function, we obtain all necessary information about how an individual thinks, as well as how to control the course of that thinking. The fact that, through neuroimaging technology, we can observe how a stimulus activates the brain does not yet mean we can precisely determine what that activation signifies, given that it may, for instance, be a response to another activation or emotion (Glaenger, 2016). However, neuroimaging methods certainly enable us to gain a better understanding of the mechanisms underlying political decision-making. In the context of examining the potential of neuroscientific testing and enhancing the traditional foundations of political marketing, it is necessary to start from the question of what neuroscientific research in

the field of political marketing effects has thus far contributed that traditional techniques and research in this field have not provided beyond speculation or the synthesis of practical experience.

The application of neuroscientific methods in the field of political marketing is extensive and essentially relates to all areas that may also be researched using traditional methods. The difference lies in the fact that, in such research, neuroscientific methods provide us with additional information which cannot be obtained through the use of other methods. Thus, these methods may be used to identify elements of advertising that elicit negative or positive emotions, to select appropriate visual and audio elements, to choose the most suitable medium for communicating the message or the optimal time for its delivery, to more precisely identify the needs of voters and subsequently tailor messages in accordance with those needs, and so on (Cherubino et al., 2019). Through traditional methods, we may obtain self-reported answers from respondents about the emotions a pre-election video provokes in them, or analyse attitudes towards the video using various behavioural methods; however, only through the application of neuroimaging may we observe how their brain responds to exposure to that video. The key advantage of neuroscientific methods lies in the fact that they provide us with information about participants' reactions that occur at an unconscious level or about which the participant may, for various reasons, be unwilling to speak honestly.

Before presenting a brief overview of basic neuroscientific methods, techniques, or tools (different authors refer to them in different ways), it is important to highlight the manner in which these methods are classified. Although different classifications exist among authors, the basic division upon which there is consensus is that between techniques for directly measuring brain activity and those that do not involve direct measurement of such activity, but instead fall within the category of physiological or biometric measurements. Figure 31 presents one such classification (Cherubino et al., 2019), which is likewise based on the criterion of whether or not brain activity is being measured. However, this classification also offers an additional division of tools for the direct measurement of brain activity into those that measure (1) metabolic brain activity and (2) electrical brain activity. What follows is a brief overview of the principal neuroscientific methods and tools.

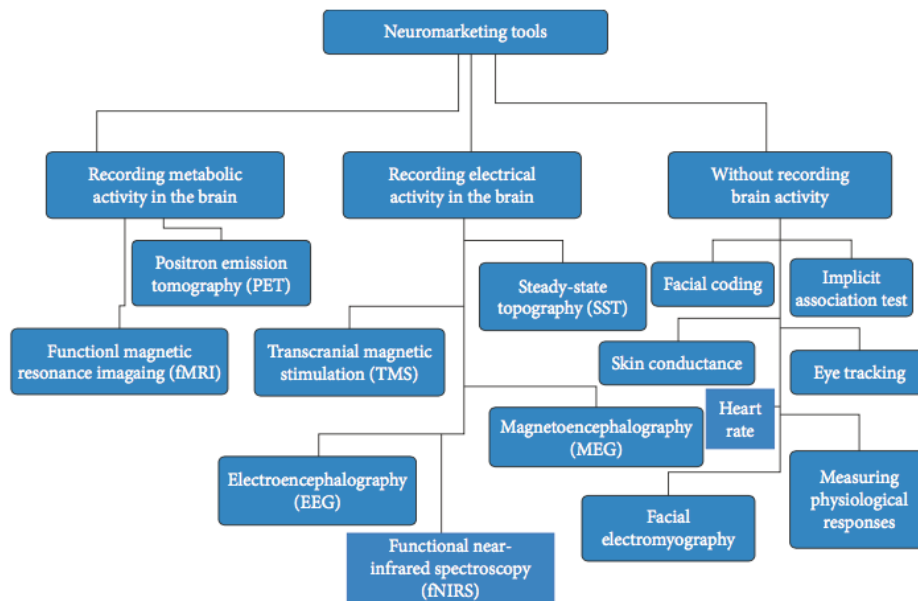


Figure 31 Classification of neuromarketing tools (Cherubino et al., 2019: 7)

Functional magnetic resonance imaging (fMRI) represents a fundamental method or tool for recording the brain’s metabolic activity. fMRI functions by measuring local changes in blood oxygen levels. Oxygenated blood “feeds the brain” and has a different magnetic “signature” compared to blood that is not oxygen-rich, and by tracking the so-called BOLD parameter (*blood oxygen level dependent*), the sequence-by-sequence imaging of the brain’s metabolic activity reveals which regions of the brain are active (Schreiber, 2017; Glaenger, 2016). fMRI essentially divides the brain into a large number of small cubic volumes and tracks the activation of the BOLD signal as a response to a stimulus. However, since neurons activate very rapidly (up to 200 times per second), fMRI can only capture a signal every few seconds, meaning there is a delay between the time of neuronal activation and the time when fMRI detects it (Glaenger, 2016). A disadvantage of fMRI is that it does not offer temporal precision in the activation of brain regions, but it is the most reliable method for identifying the location of brain changes and can track activity even in deep brain areas, such as regions beneath the cortex (Cherubino et al., 2019). fMRI is an extension of classical magnetic resonance imaging (MRI), offering more data through sequential tracking of metabolic activity. Its key advantages include the mentioned high spatial resolution (3 mm), the ability to measure most parts of the brain, including those located deep within, and the fact that it is a non-invasive method (Bojić, Tucaković & Nikolić, 2021: 406). However, beyond the temporal imprecision, disadvantages also include the distancing of participants from natural environments due to the equipment used, as well as the high cost of the technology (Cherubino et al., 2019; Majerikova, 2019; Camerer et al., 2004).

Positron emission tomography (PET) is, alongside fMRI, one of the methods for measuring the brain’s metabolic activity. It is a nuclear imaging technique that uses radioactive markers to map metabolic changes in tissues. PET provides better spatial resolution than EEG, but

poorer temporal resolution and is limited to tasks of short duration, as the necessary radioactivity degrades quickly (Camerer, Loewenstein & Prelec, 2004).

Electroencephalography (EEG) is a method for monitoring the brain's electrical activity through electrodes placed on the scalp. EEG measures the electrical signal produced when neurons are activated, and since there are billions of neurons in the brain, their activity produces electrical potentials strong enough to be detected on the surface of the skull (Glaenger, 2016). The advantage of EEG over fMRI lies in its high temporal resolution (in milliseconds); however, its disadvantage is the lower spatial resolution, which is only about 1 cm depending on the number of electrodes used (Bojić, Tucaković & Nikolić, 2021). EEG is widely applied in marketing, and some reasons for its broader use compared to fMRI include the fact that it is a non-invasive method, significantly more affordable in terms of equipment, and the equipment itself is portable and practical. A particular advantage, especially with newer commercial EEG models (such as the Emotiv Insight EEG device), lies in the fact that the equipment is user-friendly, meaning that the user can perform cognitive tasks in a natural setting. During the use of such a device, the user does not need to remain static, and newer devices are designed in such a way that users may eventually forget they are wearing them. In other words, they are tailored to ensure that the participant is fully focused on the task at hand rather than the device measuring their brain activity, thereby producing a much more authentic response from the participant. Moreover, since EEG has high temporal resolution, it is far more suitable for measuring emotional states and affect than fMRI. While fMRI records activity every few seconds, affect (especially in the phase of hot cognition) is activated within a timeframe measured in milliseconds. This is why EEG is much more appropriate for recording brainwave activity from the scalp, which may be used to measure the activation of affect and its effects on cognitive connections (Lodge & Taber, 2013).

EEG is primarily used in marketing to measure attention, engagement, arousal, emotional valence, cognition, memory, recognition, and similar variables. A disadvantage of EEG compared to fMRI lies in its inability to identify which specific brain regions are activated, due to its lower spatial resolution, since it captures only the electrical signal from the surface of the cerebral cortex. However, in the context of examining emotional states, although fMRI can register which parts of the brain are activated, this does not provide information about which emotion has been activated, given that there is no clear evidence supporting the localisation of specific emotions (with the possible exception of fear, where activation of the amygdala is detected) (Lodge & Taber, 2013: 68). Therefore, despite its low spatial resolution, it can conditionally be stated that EEG provides more precise data regarding the activation of emotions and affect.



Figure 32 Different models of EMOTIV EEG devices (www.emotiv.com)

Physiological or biometric measurements belong to the methods that do not directly record brain activity, which is why they can only conditionally be classified as neuroscientific. These methods include the measurement of bodily responses such as heart rate, blood pressure, hormone levels, skin conductance, and other parameters that provide information about various individual reactions. These also include **facial coding**, which identifies and measures micro-facial expressions using a specialised camera, revealing unconscious reactions to a stimulus based on the activity of facial muscles (Bojić, Tucaković & Nikolić, 2021). **Eye-tracking** is also a method that does not directly record brain activity, but belongs to physiological methods used to obtain information about an individual's reaction to a given stimulus. Eye-tracking provides data on where respondents are looking, that is, their visual attention, which represents significant information in marketing research. By tracking eye movements, it is possible to detect eye position, gaze direction, eye movement sequences, and visual adaptation during cognitive activity, which enables the analysis of individual behaviour and cognition (Cherubino et al., 2019). **Heart rate and psychogalvanic reflex measurements** are widespread methods for measuring emotional responses. By measuring heart rate and the psychogalvanic reflex, it is possible to observe autonomic activity and gain insight into the internal emotional state of respondents (Cherubino et al., 2019: 8).

These are only some of the methods and techniques used in neuroscience to collect neurophysiological, physiological, and biometric data. The choice of method depends on the aspect of human behaviour that we wish to examine. However, even the selection of a method implies the integration of neuroscience knowledge into the body of knowledge of the field being studied. In the case of exploring the relationship between motivated reasoning and the effects of political marketing, in order to adequately design a stimulus in experimental conditions and select the most appropriate method for studying that relationship, it is necessary to start from the existing knowledge in the fields of political persuasion and psychology. Thus, if we are examining the influence of emotions and affect on this cognitive process in the context of motivated reasoning, we select the neuroscientific method that can provide the most information about the activation of emotions. However, as shown earlier, different neuroscientific methods provide information about different aspects of emotional activation. For example, Westen selects fMRI in order to identify which brain regions are activated when individuals are exposed to a political message as a stimulus. He therefore chooses a neuroscientific method that provides high spatial resolution, allowing for the tracking of activation localisation in different brain regions. On the other hand, if the focus were on the phase of hot cognition and greater temporal precision, a more adequate method would be the application of EEG. However, EEG does not offer data on the localisation of brain activity below the level of the cerebral cortex, meaning it cannot provide information about which specific brain region has been activated. Hence, each of the aforementioned methods has its advantages and disadvantages. For this reason, researchers often choose to combine various methods simultaneously. Finally, just as we need knowledge of the field in which neuroscientific methods are applied in order to select them appropriately and design the experiment, the success of interpreting the obtained results and integrating them into the existing body of knowledge also depends on that same knowledge and the combination of results with metadata obtained through traditional methods.

10.3 Cognitive Neuroscience

Cognitive neuroscience is an interdisciplinary field that, in the broadest sense, studies how the brain enables mental functions, or more precisely, how the brain enables the mind (Gazzaniga, Ivry & Mangun, 2019). Cognitive neuroscience investigates the neurobiological structures, that is, the neural bases of cognitive processes. This includes the study of phenomena such as sensation and perception, attention, memory, language, social cognition, and so forth. However, to understand the emergence of cognitive neuroscience as an independent discipline, it is necessary to consider the historical circumstances under which the field arose. Specifically, cognitive neuroscience developed in the mid-1970s as a response to the context of the so-called cognitive revolution (in contrast to the earlier dominance of behaviourism) and the technological advancement in the field of neuroimaging.

Schreiber (D. Schreiber) states that the development of fMRI laid the foundation for the emergence of cognitive neuroscience, with the first wave of studies conducted using fMRI being those in which participants performed cognitive tasks (2017). However, the founder of cognitive neuroscience, Gazzaniga (M. S. Gazzaniga), situates the origins of the field even further back in history, linking it to the work of Thomas Willis (T. Willis 1621–1675) and his book *Cerebri*

Anatome. Together with his colleague Christopher Wren (C. Wren), Willis produced the first sketches of the human brain, which remained the most accurate representation of brain anatomy for over 200 years. Gazzaniga notes that Willis also coined names for many brain regions and is considered the founder of clinical neuroscience, with his ideas and knowledge laying the foundation for what centuries later would become the field of cognitive neuroscience (Gazzaniga, Ivry & Mangun, 2019: 4).

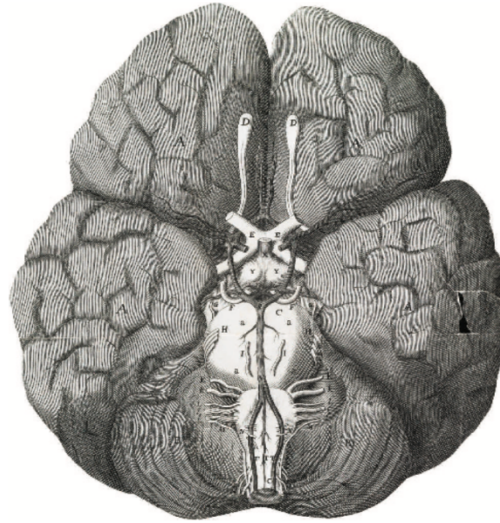


Figure 33 The human brain (ventral draw) drawn by Christopher Wren (Gazzaniga, Ivry & Mangun, 2019: 4)

One of the reasons behind the emergence of the term *cognitive neuroscience*, which in itself implies a distinction from affective neuroscience, lies in the circumstances of the discipline's origin as a response to the dominance of behaviourism and the fact that it represents a reflection of the so-called cognitive revolution, which preceded the so-called affective revolution. This is why the founder of the field, Gazzaniga, leaves room for the expansion of cognitive neuroscience to include the study of emotion and affect from the perspective of neuroscience. In explaining how the term *cognitive neuroscience* originated, Gazzaniga also provides a definition of the field. He explains that scientists, during a conversation in a New York taxi, came up with the term *cognitive neuroscience* by combining the word *cognition*—as the process of knowing (for example, what arises from consciousness, perception, and reasoning)—and *neuroscience*—as the field concerned with studying how the nervous system functions and is organised (Gazzaniga, Ivry & Mangun, 2019). He then states that this was the perfect name to describe “the question of understanding how the functions of the physical brain can yield the thoughts, ideas, and beliefs of a seemingly intangible mind” (Gazzaniga, Ivry & Mangun, 2019: 4).

10.3.1 Cognitive Neuroscience and Emotion

The very existence of cognitive neuroscience as a distinct field raises the question of the legitimacy of such terminological separation in relation to affective neuroscience, which will be addressed later. In other words, in order to understand what is encompassed by the field of cognitive neuroscience, it is necessary to begin with the justification of the very name of this field, especially in the context of the relationship between cognition and emotion. Put differently, if contemporary science assumes a “partnership” between cognition and emotion, the question arises as to whether it is even possible to speak of cognitive neuroscience as a field separate from affective neuroscience, or whether the study of the neural bases of emotion is in fact an integral part of cognitive neuroscience. In the latter case, cognitive neuroscience would refer to the study of the neural underpinnings of cognitive processes, that is, the “biology of the mind” (Gazzaniga, Ivry & Mangun, 2019), and, in the context of studying the neural bases of affect, or the activation of emotion as an implicit component of cognitive processes which exerts influence upon them - and, according to some authors, even determines them dominantly (Zajonc, 1980; Westen et al., 2006; Lodge & Taber, 2013).

Primarily, the justification for studying cognitive neuroscience separately from affective neuroscience depends on how cognition is defined. If cognitive processes are defined as exclusively conscious processes, then cognitive neuroscience could be described as the study of the neural bases of processes that do not involve affective and implicit mechanisms. However, such a definition would be more than a mere theoretical construct only insofar as there exist in reality such entirely *cold* cognitive processes, grounded exclusively in conscious and explicit mechanisms, unaffected by either conscious or unconscious emotional influence. However, contemporary studies of cognitive processes rest upon the recognition of the results of a multitude of studies which demonstrate that cognitive processes are inseparable from emotion. Zajonc’s thesis on the primacy of affect (Zajonc, 1980), and studies such as that of Damasio (1994), which demonstrated that emotional processes are necessary for the functioning of cognitive processes such as decision-making, have opened the way for an entirely new understanding of the relationship between emotion and cognition. Since such studies emerged after the term cognitive neuroscience had already been coined (in the mid-twentieth century), this field, if not the term itself, undoubtedly requires a redefinition of its scope in light of the time of its origin.

Several identified justifications exist for including the study of the neural bases of emotion within the domain of cognitive neuroscience. Some of them will be presented here, following one line of systematisation of the reasons for such inclusion (Lane et al., 2000: 3): **(1) Emotions involve cognitive appraisal** – an emotion may be understood as the outcome of assessing the relationship between an individual’s goal and the environment in which that goal is pursued. Such appraisal requires a cognitive process and thus its mechanism belongs to the domain of cognitive neuroscience; **(2) Emotion may involve awareness or attention with regard to the emotional experience** – the development of knowledge in the field of the neurobiology of consciousness and neuroscience applied to both conscious and unconscious processes clearly belongs to the domain of cognitive neuroscience; **(3) Emotional and cognitive response systems may overlap** – one example is a person with brain damage who cannot recognise familiar faces, but measurement of the psychogalvanic reflex reveals a physiological response despite no conscious recognition. In such cases, neuroscience methods provide data on a cognitive process through responses

originating in emotion, yet outside conscious awareness; **(4) Emotions may govern cognition, influence it, or limit it** – this is particularly the case in cognitive functions such as memory, attention, and perception; **(5) Some of the most productive methods for studying emotion are derived from cognitive neuroscience.** There is no evidence of fundamental differences in the neural processes underlying cognition and emotion (Lane et al., 2000). Knowledge of how the brain functions can be applied equally to the domain of cognition and to that of emotion, and in this respect, studying emotion within cognitive neuroscience is not only advantageous but often necessary in order to fully and adequately explore a given cognitive process.

Let us take, for example, the study of the mechanism of motivated reasoning which, by definition, falls within the domain of cognition. However, as we have seen, neuroscientific research into this process has led to results indicating the dominant role of emotion during the processing of information under the influence of motivated reasoning. Thus, although this concerns a cognitive process, the mechanisms underlying it cannot be classified as purely cognitive if cognition is defined as a process devoid of emotional activation. On the other hand, the growing number of studies pointing to the inseparability of emotion and cognition raises the question of whether, in light of such findings, we can still speak of cognition without including emotion. However, the answer to this question does not necessarily have to refer solely to whether cognition and emotion should be studied separately, but may also belong to the domain of reconsidering the need to redefine the concept of cognition itself.

10.3.2 Cognitive Neuroscience, Political Psychology, and Neuropolitics

It is precisely this capacity to make the mind *tangible* (Gazzaniga, Ivry & Mangun, 2019) that represents the essence of cognitive neuroscience's contribution in comparison to the study of cognitive processes prior to the development of this field. Therefore, in order to demonstrate the contribution of cognitive neuroscience, and neuroscience more generally, it is important to compare it to other disciplines that investigate phenomena in the same domain. In other words, the question arises: what does neuroscience bring that is new in comparison to research conducted within other sciences? In the case of studying the role of neuroscience in the field of political marketing, this question particularly pertains to the relationship between neuroscience and political psychology. Furthermore, it is essential to understand that the relationship between neuroscience and political psychology is based not on mutual exclusion, but on complementarity. Thus, we are not faced with a choice between fields in which a certain phenomenon should be studied, but rather with the task of selecting the appropriate combination of knowledge and methods from both domains for a given case.

The development of magnetic resonance imaging made it possible to fill the gap identified in pioneering research into neuroscientific phenomena, such as the studies conducted during the 1980s by Churchland (P. Churchland) and Sejnowski (T. J. Sejnowski). Namely, before the development of functional magnetic resonance imaging (fMRI), it was not possible to track brain activity with precise temporal and spatial resolution, whereas even the earliest studies using fMRI demonstrated changes in certain metabolic activities in the brain during tasks in which participants

were engaged in specific cognitive activities. Schreiber points out that this shift had a dramatic effect on the development of the new field of cognitive neuroscience and subsequently of social-cognitive neuroscience (Schreiber, 2017), while Cacioppo (J. T. Cacioppo) already in 2003 analysed the relationship between political psychology and social neuroscience (Cacioppo & Visser, 2003). Cacioppo highlights the organic connection between these two fields, stressing that neuroscientists investigate what he calls the foundations of neurobehavioural mechanisms, while scholars from the social sciences observe how neuroscientific principles and techniques can contribute to more realistic models of the diversity of mechanisms underlying social behaviour (Cacioppo & Visser, 2003).

This indication of differing approaches to neuroscience by neuroscientists and social scientists is highly relevant to the subject of this dissertation, given that the application of neuroscience herein is approached from the perspective of political communication, that is, political marketing. While some authors, such as Elizabeth Phelps (E. Phelps) and Laura Thomas (L. Thomas), are cautious regarding tendencies to view brain scan results as more definitive than those from traditional psychological methods, authors such as Matthew Lieberman (M. Lieberman) and his colleagues point out that well-founded theories about brain functioning have implications for political phenomena and outline how cognitive neuroscience can be employed both to generate and to test theories of political behaviour (Schreiber, 2017). In the context of examining the relationship between cognitive processes and the effects of political marketing, the aforementioned intertwining of cognitive neuroscience and political psychology must be considered with a focus on what neuroscience contributes to this field beyond the already integrated knowledge from psychology, particularly in the study of the effects of political persuasion and the propaganda process. When addressing the specific process of motivated reasoning, in addition to acknowledging the complementary relationship between cognitive neuroscience and political psychology, it is also essential to take into account the postulates of affective neuroscience, given the role of emotion in the process of motivated reasoning under the influence of political marketing stimuli.

As for the previously mentioned interdisciplinary field of neuropolitics, the relationship between political science and cognitive neuroscience within this field can be viewed from multiple perspectives. However, what fundamentally characterises this relationship is the potential that the application of knowledge and methods from the field of cognitive neuroscience in politics allows not only for the generation of new theories of political behaviour, but also for the testing of those theories (Schreiber, 2017: 118). It is important to point out two aspects of this statement – (1) the new level of theory testing offered by neuroscientific methods, and (2) the testing potential which does not apply solely to new theories emerging within the field of neuropolitics, but also to traditional theories from the domains of political science and political communication. One example of the use of such interdisciplinary potential of neuroscience is the application of findings about the neural bases of motivated reasoning (Westen et al., 2006; Westen, 2007) in the context of Ellul's thesis (Ellul, 1965) from the field of political communication, that is, political persuasion. In this example, we can see how the results of a neuroscientific experiment conducted in the early twenty-first century can be linked to a thesis formulated nearly half a century earlier. What Ellul described as an irrational entry into action under the influence of a propaganda message can be tested on the basis of knowledge about the irrational mechanisms that govern the processing of political information under the influence of motivated reasoning.

When discussing this type of testing, we are in fact situated in the field of transition from theoretical work to an experimental agenda, and in the context of such a transition within neuropolitics, three trends are identified (Schreiber, 2017: 118) – (1) the first trend relates to the study of political attitudes; (2) the second trend consists of a focus on identifying variations in neural activity at the moment when participants view faces. Examples of such experiments include the study analysing the impact of facial similarity between voters and candidates (Bailenson et al., 2008), or the experiment in which electoral outcomes are predicted based on rapid and non-reflective evaluations of faces (Ballew & Todorov, 2007); and (3) the third trend pertains to the study of basic cognitive and perceptual mechanisms in identifying differences between liberal and conservative voters. Westen's experiment (Westen et al., 2006) is the most influential example of the third trend. However, when discussing the study of cognitive processes under the influence of political persuasion, the definition of this third trend can be expanded to polarisation among respondents more broadly. Westen's sample in his experiment consisted of Republicans and Democrats, but this selection of participants primarily served the purpose of establishing attitudinal polarisation as one of the conditions. Therefore, this trend can be equally applied to the polarisation of attitudes with regard to any political issue, which does not necessarily imply ideological or partisan polarisation. In that context, the third trend could more precisely be designated as the study of basic cognitive mechanisms in identifying differences in responses to political messages, or information, about which there is polarisation among respondents.

10.3.3 Memory, Attention, and Emotions from the Perspective of Cognitive Neuroscience

If the field of cognitive science is defined as the study of thinking in the broadest sense, then this field would include all mental processes such as those responsible for object recognition, language use, reasoning, and problem-solving (Whalen, 2019). Given the wide range of cognitive processes, authors systematise or classify these processes in various ways. The criteria for these classifications are generally directly related to the specific research field on which the researcher is focused within cognitive neuroscience. Thus, for example, a researcher focused on product and service design simplifies the circumstance that hundreds of cognitive processes occur in our brain every second to a level consistent with their research focus, reducing the classification to six types of experiences – language, navigation, decision-making, attention, memory, and emotions (Whalen, 2019: 7). Gazzaniga, regarded as the founder of cognitive neuroscience, offers a broader spectrum of cognitive processes considered relevant for study in this field – sensation and perception, motor systems (action), memory, language, emotions, object recognition, and higher cognitive functions (such as decision-making) (Gazzaniga, Ivry & Mangun, 2019; Gazzaniga, 2009). In the previous discussion of emotions and cognition, as well as their interrelation, nearly all of these cognitive processes have already been mentioned. However, this section will provide a brief overview of the neural bases of those processes most directly related to motivated reasoning and regarded as some of the most important for the interdisciplinary field of neuroscience and

political marketing. Although each of these processes may be associated with motivated reasoning (directly or indirectly), memory, attention, and emotions are particularly significant in this regard.

Memory – The significance of the interaction between long-term memory and working memory and the way in which affect becomes "tagged" to a concept that is selectively transferred to working memory in response to a stimulus has already been discussed (see Lodge & Taber, 2013). Thus, the mechanism by which memory operates determines what we will think about, that is, which concepts we will process to reach a conclusion and under the influence of which affect. Memory is a key cognitive function that enables individuals to encode, store, and retrieve information (Petrović, 2025). Working or short-term memory lasts from a few seconds to a few minutes, long-term memory can last for decades, and in addition, there is the so-called sensory memory, which lasts only from a few milliseconds to a few seconds (Gazzaniga, Ivry & Mangun, 2019: 380). All three types of memory determine how we will process received information, that is, how we will respond to an external stimulus. In the case of political marketing, when, for example, we hear a political message, a selection of concepts or content occurs, which is transferred to our working memory, and we further process that message in accordance with all the conscious and unconscious mechanisms triggered by the selected content from memory, which we associate with the information related to that message.

Schacter refers to memory as fundamental to the functioning of the brain and considers it perhaps the central topic in cognitive neuroscience (2009). However, he also states that we still cannot give a precise answer to the question of what memory is, but we can say what it is not – memory is not a single entity or concept (Schacter, 2009: 655). He links the term memory to the term learning, as in biological systems it always implies learning as the acquisition and retention of information. The way memory functions remains tied to many unanswered questions and is not fully elucidated. However, what is reliably known is that the function of memory is associated with the hippocampus and other anatomically connected structures in the temporal lobe. Much of the knowledge in neuroscience, particularly regarding which anatomical parts of the brain are linked to which cognitive functions, comes from medical and research practice with patients who have sustained brain damage. This is also the case with the discovery of the link between the temporal lobe and memory (Shrager & Squire, 2009).

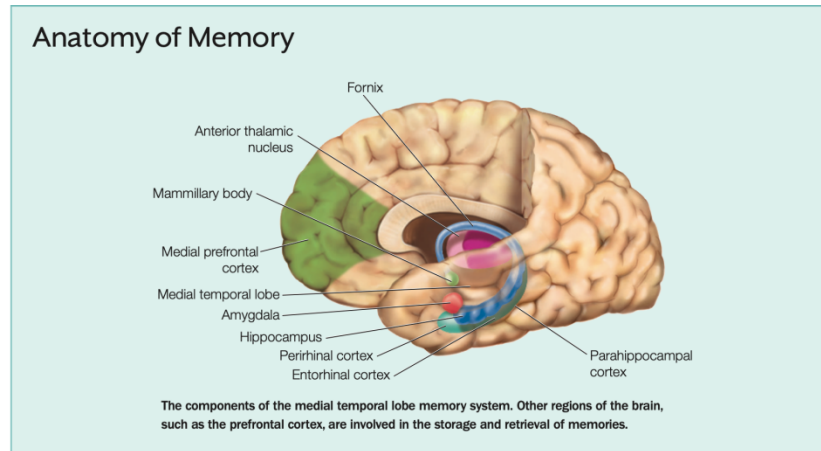


Figure 34 Anatomy of memory (Gazzaniga, Ivry & Mangun, 2019: 382)

The medial temporal lobe is associated with various functions related to memory – visual perception, working memory, habit learning, remote memory, recollection and familiarity, integration, and awareness. When discussing memory, it is important to note that there are two types of long-term memory – declarative and non-declarative memory (Gazzaniga, Ivry & Mangun, 2019). Declarative memory refers to the capacity for recalling facts and events, and it is considered that the contents of this memory are accessible to conscious recollection (Shrager & Squire, 2009). In contrast to declarative memory, non-declarative memory pertains to other memory capacities such as skills and habits, priming, simple forms of conditioning, and other phenomena in which our prior experience alters the way we interact with the external world – and it does not involve awareness. Unlike declarative memory, non-declarative memory is expressed in such a way that what has been learned is manifested more through behaviour than through conscious recall (Shrager & Squire, 2009). Therefore, in addition to what we consciously remember, cognitive information processing is also influenced by non-declarative memory, which does not occur on the level of recollection but rather exerts its influence through "encoded" prior experiences that shape how we respond to external stimuli. These two types of memory are also associated with different parts of the brain, as various forms of non-declarative memory are supported by brain systems located outside the medial temporal lobe.

Table 4 Types of memory (Gazzaniga, Ivry & Mangun, 2019: 381)

Type of Memory	Time Course	Capacity	Characteristic of Memory	
			Conscious Awareness?	Mechanism of Loss
Sensory	Milliseconds to seconds	High	No	Primarily decay
Short-term and working	Seconds to minutes	Limited (7 ± 2 items)	Yes	Interference and decay
Long-term nondeclarative	Minutes to years	High	No	Primarily interference
Long-term declarative	Minutes to years	High	Yes	Primarily interference

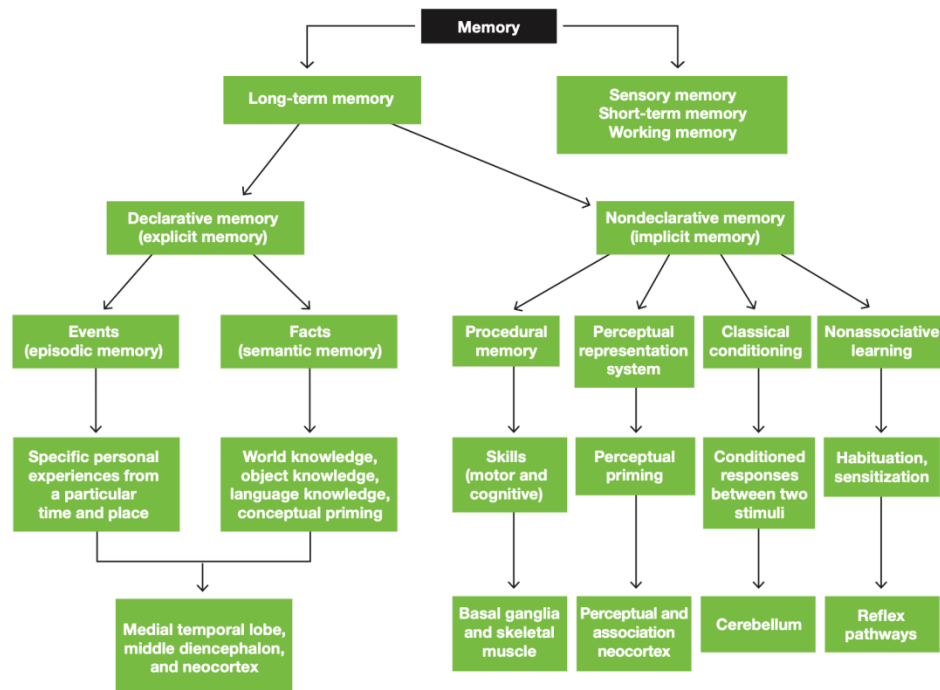


Figure 35 The hypothesized structure of human memory (Gazzaniga, Ivry & Mangun, 2019: 385)

Cognitive processes are influenced by all the aforementioned types of memory, and the fact that there are multiple types of memory – each with different durations, characteristics, and influences – and most significantly, that some involve conscious awareness while others do not, already illustrates the complex role memory plays in cognitive functioning. Precisely due to such characteristics and influences, memory represents one of the key foci of researchers in the field of neuromarketing. The same applies to the application of neuroscience in the field of political markets, that is, political marketing. Marketing professionals are particularly interested in memory encoding and storage processes within cognitive neuroscience, as well as in the role of the amygdala as a modulator of the memory system, especially in the consolidation of memory (Cherubino et al., 2019).

Attention – Attention plays an especially important role in the application of cognitive neuroscience to both commercial and political marketing. Attention influences “how we code sensory input, store that information in memory, process it semantically, and act on it to survive in a challenging world” (Gazzaniga, Ivry & Mangun, 2019: 277–278). People are exposed daily to an overwhelming volume of information – every second, they receive around 11 million bits of unfiltered input (ads, products, images, colours, sounds, etc.) through all their senses, yet they are only capable of processing about 50 bits (Cherubino et al., 2019). Based on such data, it is clear how critical the influence on attention is to marketing effectiveness – that is, influencing which information will be processed.

Imagine a pre-election campaign in which people are bombarded with political messages via all media: television programmes, spots, street billboards, posters, and leaflets in mailboxes. First, one must find a way to direct people’s attention to a specific message, candidate, or billboard.

Furthermore, even once the marketing product has entered the attentional field, a “battle” ensues over how that attention will be directed – for example, whether the flyer will draw attention to the candidate's image, the slogan beneath the image, the keywords in the message, or even the dominant colour scheme. What is captured by attention determines how the message will subsequently be processed. This refers to selective attention, defined as the capacity to focus awareness on one stimulus, thought, or action while ignoring other irrelevant stimuli, thoughts, or actions (Gazzaniga, Ivry & Mangun, 2019).

Cognitive neuroscience provides insights into the neural bases of attention that cannot be obtained through other methods. For example, through self-report, one might hear which part of a text a person claims to have focused on most, but using methods such as eye-tracking or monitoring electrical brain activity while reading, one can obtain far more precise data not only about where attention is directed but also how. From this, it becomes much easier to predict or understand the effects a particular stimulus has on an individual. Only the basic neuroscience findings regarding attention will be presented here, for the purpose of illustrating the specific perspective from which attention is studied in this field.

Above all, it is necessary to begin with the fact that cognitive neuroscience provides knowledge about the “anatomy of attention,” or brain regions responsible for attention-related mechanisms. As in all other cognitive processes studied within cognitive neuroscience, we can here see why Gazzaniga referred to this field as one in which the mind becomes *tangible* (2019). With the development of neuroscience, attention is no longer regarded as merely a speculative or psychologically conceptual phenomenon, but as a function of specific brain areas. The key brain regions involved in the activation of attention include parts of the frontal and parietal lobes, as well as subcortical structures, including regions of the thalamus and superior colliculi (Figure 36) (Gazzaniga, Ivry & Mangun, 2019: 277). Two basic forms of attention exist: voluntary attention (also known as top-down), referring to the focus on achieving current behavioural goals, and reflexive attention (also known as bottom-up), triggered by sensory events in the environment that capture our attention (e.g. a sudden noise) (Gazzaniga, Ivry & Mangun, 2019: 282). Gazzaniga also states that attention can be **overt**, such as when one turns their head towards a stimulus to see or hear it more clearly, or **covert**, such as when a person behaves as if not paying attention to something while in fact doing so (e.g. not shifting one’s gaze from a book while actually listening to a nearby conversation) (2019).

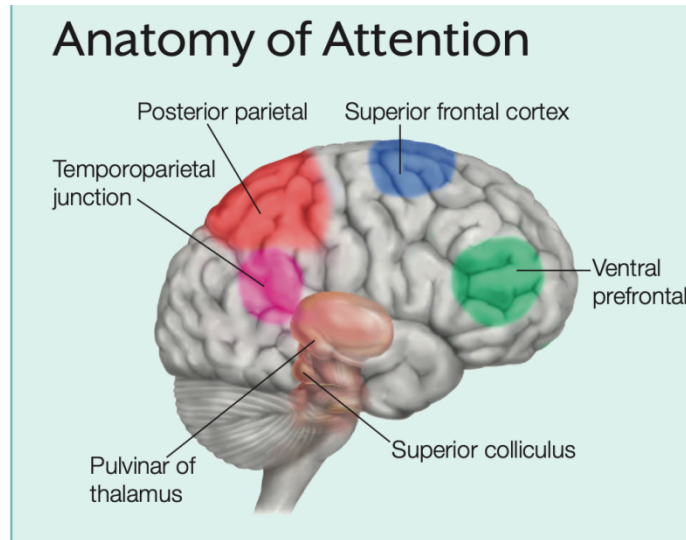


Figure 36 Anatomy of attention (Gazzaniga, Ivry & Mangun, 2019: 277)

Attention plays a particularly important role in the process of motivated reasoning, as under the influence of this cognitive process people tend to pay attention to stimuli that align with their motives or goals, while ignoring those that are undesirable to them. A neuroscientific study showed decreased activity in the lateral prefrontal cortex, a brain region responsible for attentional control, during the presentation of information that did not align with participants' motives (Hughes, 2015: 63). This result indicates the neural bases of selective attention, which in the case of motivated reasoning is directed toward selection in relation to the motive—that is, a conclusion consistent with the goal-directed motive. The findings of this study suggest that drawing attention to undesirable information may reduce the effect of bias during motivated reasoning (Hughes, 2015).

Emotions – The manner in which emotions influence cognitive processes and the importance of emotions in processes such as motivated reasoning has already been discussed in more detail. Here, a brief overview of the neural bases and neurophysiology of emotion will be provided, along with the position emotions occupy within the field of cognitive neuroscience. Although they do not fall within the domain of cognition, contemporary cognitive neuroscience acknowledges that it is not possible to speak of cognitive processes without also studying the role of emotions within them. Thus, the position of emotions - or affect - in this field stands *side by side* with cognitive processes. In cognitive neuroscience, the role of emotion is recognised as particularly important in the field of social cognition, based on the assumption that nearly all social interactions elicit affective responses (Heatherton & LeDoux, 2009). In addition, the significant and inescapable role of emotional processes is linked to the adaptive function of the brain—namely, the function associated with problem-solving and coping with challenges. Emotions prepare the organism to face important events and represent one of the strongest motivational forces guiding human behaviour (Heilman, 2000: 328).

The adaptive role of emotions has already been discussed, that is, the role in which emotions, even before cognition, signal that some action must be taken. However, it is necessary to distinguish between an emotional reaction and action. Human and animal behaviour can be divided into four categories: **(1) reflex** (a response triggered by a stimulus that usually involves

activation of a single or limited group of muscles); **(2) reaction** (similar to a reflex, it is a response to a stimulus, but unlike a reflex, it involves the entire organism or at least multiple muscle groups); **(3) action** (occurs at the level of the organism but is not automatically triggered as a response to a stimulus; instead, it occurs in the presence of a stimulus that directs behaviour toward specific goals. Thus, action is purposeful and goal-directed behaviour that involves motivation); and **(4) habit** (involves the repetition of an instrumental response in the presence of a particular stimulus, becoming strongly associated with that stimulus and occurring inflexibly in its presence) (LeDoux, Schiller & Cain, 2009: 905–906). The relationship between emotion and behaviour is highly complex and depends on which of the four types of behaviour is under consideration. Behaviour and action are often treated as synonyms, especially in the context of political persuasion. For example, when Ellul (1965) speaks of behaviour change, he is referring to engaging in specific action. Since behaviour is a broader term than action, this is not incorrect. However, it is important to understand that other types of behaviour may also occur under the influence of political persuasion stimuli. A person influenced by such a stimulus may engage not only in goal-directed action but also in reflexes and reactions, or even act based on habit. What is important when discussing emotions is that they play a role in each of these forms of behaviour. Just as with behaviour, emotions also influence every cognitive process, such as memory and attention. In the abundance of political messages, our attention will be guided in part by our emotional responses to those messages, or from long-term memory, concepts associated with the strongest affect will be selected for transfer into working memory. Conversely, negative emotions can also affect cognitive processes in the opposite direction - by causing us to ignore or suppress that which provokes negative emotions.

When discussing the relationship between emotions and behaviour, it is important to emphasise that emotions contain at least two key components: **(1) emotional behaviour**, which can be either overt or covert (overt behaviour is visible through gestures, facial expressions, etc., while covert behaviour includes changes in the visceral and autonomic nervous system. Both types of emotional behaviours represent adaptive aspects of emotions); **(2) emotional feelings or experiences** (although feelings are subjective, they represent one of the key factors that motivate behaviour. Not only does direct emotional experience motivate behaviour, but also the knowledge that a particular stimulus, situation, or action may produce a certain emotional state in the future serves as a powerful and significant motivational factor) (Heilman, 2000: 328).

In the field of cognitive neuroscience, there is also no consensus on the definition of what emotion is, but there is agreement on three components of emotion: (1) physiological reactions to a stimulus, (2) behavioural responses, and (3) feelings (Gazzaniga, Ivry & Mangun, 2019: 430). When discussing the anatomy of emotion, that is, the parts of the brain responsible for emotion, we have already referred to the Papez circuit and MacLean's theory of the limbic system (MacLean, 1952). In the early stages of emotion research, it was believed that there were no centres in the brain that could be directly associated with the activation of emotion, and the development of science in the direction of identifying specific parts of the brain linked to emotional states has been crucial for the biological study of emotion (Davidson et al., 2000). MacLean's thesis on the existence of an "emotional brain" was highly influential; however, contemporary research indicates that his concept suffers from imprecision at both the structural and functional level (LeDoux & Phelps, 2010). Studies show that it is nearly impossible to separate the "emotional brain" from the rest of the brain, that is, it is very difficult to identify specific neural circuits by

which particular emotions could be localised. In this respect, the most reliable data so far concern the role of the amygdala (Gazzaniga, Ivry & Mangun, 2019; LeDoux & Phelps, 2010; Emery & Amaral, 2000). Nevertheless, MacLean's limbic system remains a foundational model for the anatomical study of emotion. While some researchers consider this model more descriptive and historical than functional, for others it remains a fundamental model in their approaches, depending on their conceptualisation of emotion (Gazzaniga, Ivry & Mangun, 2019: 432).

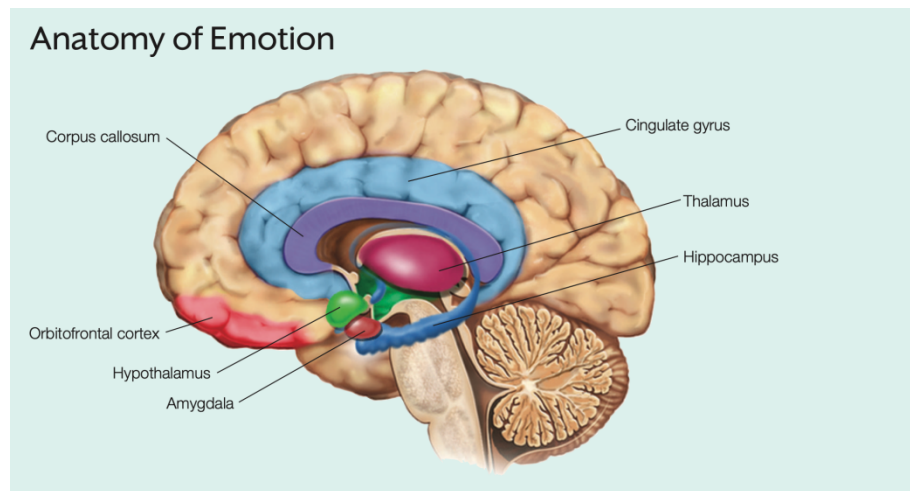


Figure 37 Anatomy of emotion (Gazzaniga, Ivry & Mangun, 2019: 433)

However, despite the challenges in precisely identifying brain regions responsible for emotions, contemporary neuroscientific research has led to the discovery of complex, interconnected neural networks involved in responding to emotional stimuli. These networks include the thalamus, somatosensory cortex, higher-order sensory cortices, amygdala, insular cortex (also referred to as the insula), ventral striatum, and the medial prefrontal cortex, including the orbitofrontal cortex and the anterior cingulate cortex (Gazzaniga, Ivry & Mangun, 2019: 433). Research into emotions within cognitive neuroscience focuses on specific emotional tasks and on identifying the neural systems underlying emotional behaviour. In other words, different emotional tasks activate different neural systems. Neuroscientific research is therefore not aimed at locating specific brain regions responsible for emotion, but at identifying the neural circuits or networks associated with particular emotional tasks or situations. Nevertheless, the limbic system remains a fundamental reference point, whose activation signals the presence of emotional activity.

When considering the relationship between cognitive neuroscience and other disciplines, it is important to emphasise the interdisciplinary nature of neuroscience, including in the study of emotions. Knowledge from neuroscience concerning emotions is complementary to knowledge from psychology, and then to the specific field in which neuroscientific knowledge and methods are applied. This also applies to the use of neuroscientific findings on emotions in the field of political persuasion. Cognitive neuroscience provides insight into the neural bases of emotions, but psychological knowledge and the concrete understanding of the role of emotions within political persuasion together provide a more complete picture. In this way, knowledge from cognitive neuroscience becomes a platform for a unique contribution to existing understandings,

opening an additional dimension that allows for a better comprehension of the role of emotion. In the Figure 38, an example is shown of how the same phenomenon of the hierarchical organisation of emotional experience can be represented from both psychological and neuroscientific perspectives (lighter tones indicate levels related to implicit processes, and darker tones those related to explicit ones). This is one of the examples that illustrate the true role and contribution of neuroscience – the representation of the neural bases of specific mechanisms.

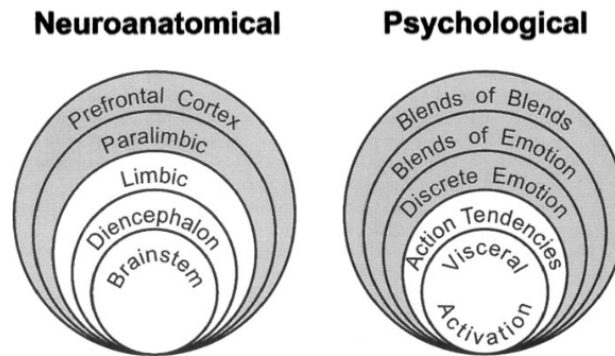


Figure 38 Parallels in the hierarchical organization of emotional experience and its neural substrates (Lane, 2000: 363)

10.4 Affective Neuroscience Theory

The inseparability of the study of cognitive processes from the study of emotions is reflected in the position that emotions occupy within the field of cognitive neuroscience, where they are studied on an equal footing with cognition. However, what nonetheless distinguishes emotions from purely cognitive processes (at least in the sense in which they exist as separate constructs on a theoretical level) lies in the development of affective neuroscience theory. It has already been noted that the separation of emotion and cognition is an artificial division, often justified only by the needs of theoretical analysis. The examination of the mobilising role of political persuasion based on the findings of Westen's experiment (Westen et al., 2006) represents one of the examples of a field in which cognitive processes and emotions cannot be studied separately. As previously mentioned, the reason for this lies in the results of the experiment, which demonstrate that emotions play a dominant role in the neural substrate of motivated reasoning as a cognitive process. Given that an overview has already been provided of the theory of motivated political reasoning and the basic theoretical aspects related to emotions, followed by a presentation of the foundations of cognitive neuroscience, it is necessary finally to turn to the neuroscientific field that deals with emotions, namely affective neuroscience. In this way, the whole can be completed, identifying the mobilising role of political persuasion through the prism of studying the relationship between relevant cognitive processes and emotions, along with their neuroscientific counterparts embodied in cognitive and affective neuroscience.

In the context of Westen's argument regarding the connection between the brain as a product of millions of years of evolution, the contribution of neuroscience to studying how we address it, and the role of emotions in that process (Westen, 2007), we are situated in the field of affective neuroscience for at least three reasons: (1) when Westen refers to the brain as a product of millions of years of evolution, he acknowledges the evolutionary approach upon which affective neuroscience is based, (2) he emphasises the importance of emotions, which are central to affective neuroscience, and (3) he underscores the importance of neuroscience in the context of developing knowledge about how to "address" the brain as a product of evolution. The theory of affective neuroscience was introduced by Panksepp (J. Panksepp) in 1992, with a comprehensive formulation published in 1998. This theory (Panksepp, 1992; 1998) begins with the premise of the existence of primary emotional systems common to all mammals, which have persisted through evolution since before the development of the cortex in the brain of *Homo sapiens*, and as such represent "tools for survival" (Montag & Davis, 2018: 2). Panksepp mapped seven basic emotions in the mammalian brain, and these seven subcortical emotional systems are labelled as SEEKING, LUST, CARE, and PLAY (positive emotions), and FEAR, RAGE, and PANIC/GRIEF (negative emotions) (Montag & Davis, 2018: 2). According to Panksepp, the primary function of these emotional systems is to coordinate various types of behavioural and psychological processes in the brain and body (Panksepp, 1998), and he suggests that these basic emotional systems could serve as essential components in a broader array of affective concepts (Panksepp, 1992). He defines affect as "ancient brain processes for encoding value – that is, as heuristics that the brain uses for making snap judgements about what will enhance or detract from survival" (Gazzaniga, Ivry & Mangun, 2019: 435).

In formulating the theory of affective neuroscience, Panksepp starts from the question of how neural activity creates affective experiences, which he considers to be the most important question in the study of basic emotions (Panksepp, 2008). Unlike classical theories of basic emotions, he does not stop at asserting that such emotions exist as a result of evolution, but rather examines how neural activity creates affective experiences that arise from those emotions. Panksepp posits that our emotional feelings reflect our capacity to subjectively experience specific states of the nervous system (1998). In other words, he identifies the state of the nervous system as the starting point from which all our subjective experiences - and everything we feel or think under the influence of emotion and affect - are merely consequences of neural activity. On this basis, he argues that the nature of human and animal emotion cannot be understood without studying the brain (Panksepp, 1998).

In contrast to cognitive neuroscience, which includes the study of emotions and their relation to cognition, affective neuroscience adopts a somewhat more exclusive stance towards emotions, or affect. In other words, while cognitive neuroscience generally recognises a partnership between cognition and emotion - or even grants dominant importance to emotions in some subfields (see Lane & Nadel, 2000) - the theory of affective neuroscience starts from the primacy of affect and emphasises the distinction between affect and cognition. Thus, Panksepp underscores the necessity of distinguishing cognition and affect, primarily on the basis that they reflect different - although interactive - aspects of brain organisation. Cognition involves neocortical processing of information, typically triggered by environmental input, whereas affects are not encoded as information but represent global states generated by deep subcortical brain structures (Panksepp, 2008).

Panksepp's theory of affective neuroscience is also grounded in his theory of hierarchical emotional processing, which assumes that emotions are subject to a control system involving hierarchical processing. The most basic, foundational level in that hierarchy represents primary processing or core emotions, which enable the most intense emotional feelings and originate directly from evolutionarily ancient subcortical neural networks. Secondary processing refers to emotional learning and derives from conditioning, while tertiary processing pertains to emotions that are elaborated by cognition (Gazzaniga, Ivry & Mangun, 2019). The manner in which Panksepp conceptualises this hierarchical processing illustrates how the relationship between cognition and emotion is positioned within the theory of affective neuroscience. Panksepp begins with the assumption that there are at least three types of affect: (1) sensory affects, (2) bodily-homeostatic affects, and (3) emotional affects of the brain (Panksepp, 2008). According to this theory, each of these affects first undergoes primary processing, which leads to emotions that are in no way connected to cognition. Only in the tertiary stage of processing, according to this hierarchy, does affect become linked to thoughts and other cognitive processes. Therefore, primary processing of affect, according to this theory, can lead to instinctive emotional behaviour without prior cognitive elaboration.

Through this conceptualisation of the hierarchical processing of emotions, we can understand how Ellul's thesis on entering into action by an irrational route and without prior reflection or influence on attitudes (Ellul, 1965) can be interpreted within the framework of affective neuroscience theory. Specifically, when Ellul states that modern man does not think but feels (1965), this can be associated with the primary affective processing described by Panksepp. In this case, when Ellul instructs that successful political persuasion is that which targets human behaviour—and he interprets this behaviour as separate from influence on attitudes—within the field of affective neuroscience this could be translated as an instruction that successful political persuasion is that which affects basic emotional systems and leads to action following primary emotional processing, without prior or parallel cognitive processing of the message to which one is reacting. If Ellul argues that this is the hallmark of modern propaganda, and that it represents a shift from the dynamics of traditional propaganda, then such an interpretation from the perspective of affective neuroscience would open the question of whether there is a need for research aimed at examining whether, and under which conditions, modern political propaganda is oriented towards stimuli that provoke reactions at the level of basic emotional systems. In that context, the question arises as to whether modern political persuasion is primarily focused on behavioural change or on primary affective processing, that is, on the “bypassing” of cognition, whereby behavioural change can be viewed merely as its consequence. Gazzaniga, in illustrating Panksepp's theory, provides the example that when a person sees a bear, through subcortical processing a core emotion arises, leading to instinctive emotional behaviour—in this case, fleeing (Gazzaniga, Ivry & Mangun, 2019: 433). In the same way, within the field of political persuasion, an individual may be instinctively led to a specific action by a stimulus in the form of a political message.

However, the question arises as to how this can then be linked to the influence of affect or emotion on motivated political reasoning, which leads to the same outcome (except in the case of reaching an affective tipping point), but is still a cognitive process. One possible answer to this question could be that motivated reasoning in fact represents a specific form of cognitive processing in which, although by definition it involves tertiary processing (the linking with thought), the final outcome often remains the same as if only primary processing had occurred.

One possible interpretation could be that motivated reasoning differs from other forms of cognitive processing precisely in that it is oriented towards a kind of *cancellation of cognition by cognition*. In other words, cognitive processing is employed in the search for arguments to rationalise and thereby subordinate logical reasoning to a motive reinforced by a core, basic emotion. If we start from Panksepp's claim that all affect originates from basic emotional systems which, at certain levels of processing, exclude cognition, then - even though it is a cognitive process - it is justified to examine motivated reasoning through the lens of these systems, which form the foundational premise of affective neuroscience theory.

As in the case of cognitive neuroscience, it is necessary to consider what affective neuroscience contributes that is new in relation to psychology, philosophy, and other disciplines that also study emotions. Panksepp asserts that "psychology simply cannot illuminate the nature of primary affective processes (or other primary processes in the brain) without credible neurological analysis" (Bunge, 1990; Panksepp, 1990, as cited in Panksepp, 1992). Furthermore, he argues that the perspectives of social constructivists can substantially contribute at the highest branches of the emotional *tree*, but that they cannot realistically address the foundational trunk of that tree. He suggests that philosophically and psychologically oriented researchers should be encouraged to evaluate the evidence and the formal nature of existing claims, rather than merely assuming them (Panksepp, 1992). This kind of suggestion could also be applied to the field of political communication, or more specifically, political persuasion. In that context, Ellul's thesis might also be viewed as a thesis from the "highest branches of the tree" of which Panksepp speaks, which could be evaluated through the application of neuroscientific methods. Given Ellul's previously stated premise that the development of political persuasion, or propaganda, must follow the dynamics of the development of knowledge and methods in the sciences relevant to this domain, it is reasonable to assume that he would consider such a suggestion by Panksepp not only welcome but necessary.

10.4.1 Neurostatics

In his theory of affective neuroscience, Panksepp begins from the conviction that understanding psychological and behavioural processes must initially be guided by an understanding of how the brain functions (1998). Neuroscientific discoveries about how the brain, as an organ, produces the mind—that is, all our thoughts, feelings, and behaviours—are what Panksepp refers to as the *mechanistic understanding of the mind* (1998), and what Gazzaniga calls the *biology of the mind* (2019). The neuroscience revolution, which followed the cognitive and affective revolutions, has resulted in knowledge from the field of neuroscience concerning the relationship between the brain and the mind being increasingly integrated into research within the social sciences, including the field of political communication and political marketing. This is primarily associated with the establishment and growing acceptance of the so-called *neuron doctrine* (Panksepp, 1998), which rests on the premise that each individual neuron is the fundamental unit responsible for transmitting information throughout the brain.

However, in psychological terms - that is, in terms of understanding human behaviour, thought, and feeling - the individual neuron is of no significance. It is only by understanding how

neurons communicate with one another, and the relationship between this communication and the anatomy of the brain, that a true platform is created for understanding how the brain produces the mind. In this sense, it is important to consider Panksepp's distinction between neurostatics and neurodynamics, where neurostatics refers to relevant neuroscientific knowledge concerning the anatomy of the brain and the identification of the functions of specific brain regions, while neurodynamics refers to the interaction between interconnected neurons (that is, neural networks), which, as receivers and transmitters of information, have their own electrical and chemical properties.

Panksepp notes that scientists have known about the existence of neurons for only a little more than a century, while the preceding thousands of years of the history of studying the human mind were marked exclusively by reliance on verbal concepts. Neuroscientific discoveries about internal functions that enable mental processes (Panksepp, 1998), that is, neuroanatomical, neurophysiological, and neurochemical concepts, face the challenge posed by habits established over that long pre-neuroscientific history. Here, only the basic elements of neurostatics will be presented, with the aim of illustrating the focus of this field rather than providing a detailed exposition. The aim of this presentation is therefore simply to highlight the need to distinguish between neurostatics and neurodynamics in the context of applying neuroscience to the field of political marketing.

When speaking of neurostatics, that is, neuroanatomical and neurophysiological concepts, Panksepp first points to anatomical similarities between the human brain and the brains of other mammals. He argues that if one knows the subcortical neuroanatomy of a single species of mammal, one also knows the neuroanatomical foundations of all mammals. In other words, according to Panksepp, all mammals share the same neuroanatomical foundation, and for this reason, he proceeds from the assumption that studying the brains of other mammals provides important information about the human brain as well. In such an approach, Panksepp unequivocally relies on the evolutionary tradition. When discussing brain anatomy, that is, neurostatics, Panksepp (1998) begins with a division of the brain into: (1) the visceral or limbic system, from which the primary impulse for emotionality arises (since the theory of affective neuroscience is focused on emotions, Panksepp concentrates primarily on the processes occurring in this part of the brain); (2) the thalamic–neocortical axis of the somatic nervous system, in which information from our external bodily senses is collected and which governs our skeletal motor systems through cognitive influence on judgements, plans, and other representations of the external world; and (3) the basal ganglia, metaphorically referred to as the “reptilian brain”, where somatic–cognitive and visceral–emotional processes converge (Figure 39).

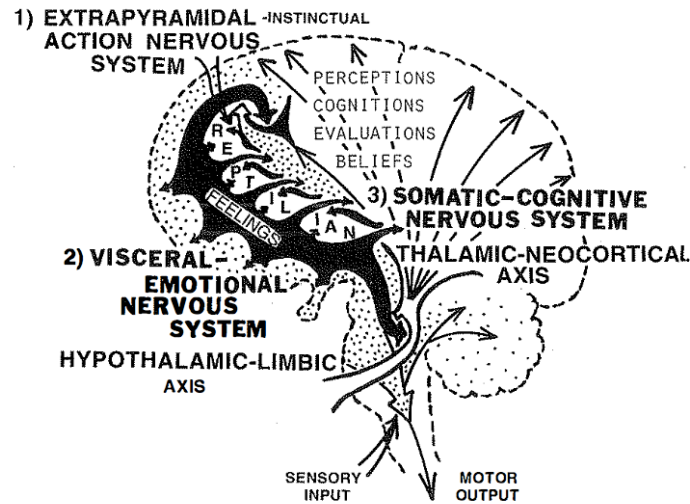


Figure 39 Schematic representation in the human brain of the major axes of visceral and somatic information processing (Panksepp, 1998: 62)

The figure 39 illustrates how the brain processes information and how behaviour emerges from the perspective of neurostatics, that is, from the standpoint of affective neuroscience theory. Specifically, the key axes of visceral (the hypothalamic–limbic axis—the stream of feeling) and somatic processing of information converge in the basal ganglia. Dorsal flows of neural activity are associated with information arriving from the external senses (sight, hearing, touch), while ventral—visceral—streams of neural activity are more closely linked to chemical and internal senses (taste, smell, temperature, and various detectors of hormones, bodily energy, and hydration) (Panksepp, 1998: 62). Panksepp states that both of these streams of information converge within the basic programmes of sensorimotor control in the basal ganglia to generate behaviour in which visceral and somatic processes are unified in order to produce a coherent behavioural outcome. From this representation, we can observe the connection between neurostatics and the domain of political marketing effects. Since the effects of political marketing, or political persuasion, are directly linked to the way individuals process information—specifically political messages—and to the influence on behaviour (Ellul, 1965), neuroscience provides insight into the neurophysiological foundation of that process. Such insight allows not only a better understanding of the process, but also more effective management of it, through the adaptation of content and the manner in which messages are delivered in accordance with knowledge about how individuals, as biological beings, respond to them.

Within neurostatics, Panksepp (1998) also highlights the need to distinguish between *closed* and *open* systems in the brain, and the importance of the relationship between these systems and environmental influences. “Closed” systems are those that operate in the same way each time, with characteristic timing and intensity. These systems include, for example, reflexive behaviours such as yawning or blinking. Although behaviours resulting from closed systems can be somewhat shaped by environmental factors, they predominantly occur independently of such influences. In contrast, other systems in the brain are more open to external influence. Thus, neural circuits associated with emotions may be affected by a variety of environmental factors, such as hormonal influences or learning (Panksepp, 1998: 63). Comparing these systems across humans and lower

mammals, Panksepp notes that they are closed in lower mammals, but have become open in higher mammals through cortical evolution (Panksepp, 1998: 63). He gives the example that humans may experience strong emotions but are not necessarily compelled to share them with others unless they choose to. According to Panksepp, the more “open” a given brain programme is, the more it is influenced by nurture and the less by nature. Nevertheless, the theory of affective neuroscience posits that even the most open brain systems are subject to biological constraints. The distinction between “open” and “closed” brain systems also represents an example of how neuroscientific knowledge can be applied to the field of political marketing. Specifically, in order to interpret an individual’s response to a given stimulus more deeply, it is important to understand whether that response is predominantly shaped by one or the other system, as well as to be familiar with the characteristics of those systems.

10.4.2 Neurodynamics

In his theory of affective neuroscience, Panksepp divides neurodynamics, that is, the manner in which neurons communicate with one another, into electrical and neurochemical communication. These two forms of neuronal activity are metaphorically referred to by Panksepp as the *electrical languages of the brain* and the *neurochemical maps of the brain* (Panksepp, 1998). Monitoring electrical signals in the brain and its neurochemical maps provides insight into how the brain translates neuronal communication into thoughts, feelings, and behaviour. A key aspect of the relationship between neurostatics and neurodynamics lies in the fact that identifying the location where communication occurs, along with knowledge of the function of that part of the brain, contributes to understanding that communication—that is, to a kind of “translation” of neuronal exchange. Panksepp (1998) explains this by asserting that the study of neuronal pathways without consideration of their function is merely anatomy, and that the physical structure of the brain becomes truly animated only through the study of its dynamic activities—electrophysiological, neurochemical, behavioural, and psychological (82). Nevertheless, it is this very anatomy that sets the boundaries for those dynamic activities. In other words, neurostatics and neurodynamics are inseparable in the understanding of the biology of the mind, providing us together with data on how *the brain creates the mind* (Gazzaniga, 2009).

Both types of neurodynamics constitute complex areas of neuroscience, making it impossible to provide a detailed overview of them at this point. Neurochemical maps of the brain refer to the identification of the pathways and neurochemical properties underlying neuronal activity. Since “all brain functions are ultimately subserved by chemically controlled changes in interneural communication, it is crucial to delineate the functions of the many neurotransmitter systems that exist in the brain” (Panksepp, 1998: 103). Over one hundred chemical substances have been identified as neurotransmitters, each with distinct functions. For example, glutamate is involved in numerous psychological processes, including memory formation and learning; dopamine plays a role in thought, feeling, motivation, and behaviour; and serotonin is involved in the regulation of mood, sleep, arousal, and pain (Burton, Westen & Kowalski, 2019). In other words, in the context of the brain’s neurochemical maps, Panksepp (1998) refers to a form of chemical encoding of specific brain processes based on communication via chemical substances released upon neuronal activation. However, since this research focuses on the measurement of

electrical neuronal activity, the discussion of neurodynamics here will be limited to the fundamental elements of what Panksepp has referred to as *the electrical languages of the brain*.

Panksepp metaphorically describes neuronal communication as a depiction in which “individual neurons convey information via a universal electrochemical process, speaking to other neurons in chemical dialects” (Panksepp, 1998: 81). However, he emphasises that such a portrayal—particularly from a psychological standpoint - is overly simplistic, and that the study of electrical neuronal responses has not yet developed to a level at which a credible image of the neurodynamics of the mind could be established. The key challenge and objective of such research is to arrive at a model that fully illuminates the “internal harmony to brain functions” (Panksepp, 1998: 81), that is, the manner in which the activities of various brain regions are interconnected. In that sense, Panksepp (1998) maintains that the best way to observe brain operations holistically and in real time is through the measurement of electrical signals via EEG (electroencephalography), which allows for the monitoring of the overall activity of dendrites across large groups of neurons. As previously noted, the limitation of EEG measurements lies in the fact that this technique cannot detect activity in deeper brain regions beneath the cortical surface. Nevertheless, despite this limitation, EEG remains the most appropriate technique for measuring overall brain activity.

To understand what precisely is meant by the *electrical languages of the brain* measured through EEG, one must begin with the mechanism by which the electrical signal being measured is generated. Neurons transmit information in only one direction - from the cell body towards the axon and dendrites and the cell bodies of other neurons - in the form of a discontinuous stream of electrical impulses (Panksepp, 1998: 82). Dendrites are extensions through which neurons receive inputs from other cells; the cell body contains the nucleus, which holds the cell’s genetic material; and the axon is a long extension whose central function is to transmit information to other neurons (Burton, Westen & Kowalski, 2019: 139) (see figure 40). Such neuronal activation (neuronal firings) consists of a progression of electrical waves or action potentials, which represent sequences of frequency-coded information flowing from the axon to the synapse (Panksepp, 1998: 82). In a resting state, a neuron's membrane is polarised “like the two sides of a battery,” with the interior side negatively charged and the exterior positively charged (Burton, Westen & Kowalski, 2019: 141). Activation occurs when the membrane is depolarised upon contact with another neuron. Before reaching the stage of an action potential, when stimulated by another neuron, the neuronal membrane is either depolarised or hyperpolarised, and the spreading of voltage along the membrane that follows is known as a graded potential. Following neuronal activation, neurotransmitters are released, and the message is transmitted chemically. Thus, neurodynamics, in both chemical and electrical terms, are interconnected processes dedicated to message transmission, that is, the exchange of information among neurons.

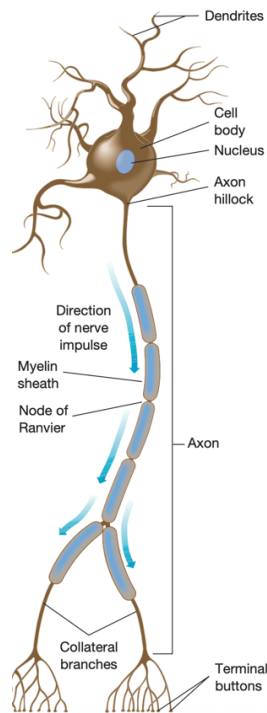


Figure 40 Neuron structure (Burton, Westen & Kowalski, 2019: 140)

The aggregate of electrical waves (action potentials) generated by thousands of dendrites on each side of the electrode constitutes the background information processing occurring within neuronal networks, and at present, electroencephalography (EEG) remains the most effective method for performing neuronal analysis of mental processes (Panksepp, 1998: 83), as it records these electrical signals from the cerebral cortex in real time. Panksepp metaphorically refers to this as the “synaptic language” that transmits “electrical messages” (Panksepp, 1998: 84). EEG, therefore, records the neurodynamics of the human brain during the very moments in which mental processes occur, which constitutes a fundamental advantage of this technique over all others.

Brain waves measured by EEG were first observed by Hans Berger, a German psychiatrist, in 1929. He discovered that when a person is resting with eyes closed, their brain waves oscillate in a rhythm of approximately 10 cycles per second, which he called the alpha rhythm. He also noted that this rhythm is disrupted when the person opens their eyes - a phenomenon he named alpha blocking, which is now known as beta waves (Panksepp, 1998: 87). Panksepp (1998) categorises the brain waves recognised thus far as follows: delta waves (0.5–3 Hz) represent the slowest rhythm and typically reflect that an individual is drowsy; theta waves (4–7 Hz) are

associated with meditative experiences, unconscious processing, and some negative emotional effects such as frustration, as well as information processing in specific brain areas such as the hippocampus. When this rhythm is observed in the hippocampus, it is assumed that the individual is elaborating thoughts and memories, and it is also present during rapid eye movement (REM) sleep; alpha waves (8–12 Hz) represent the brain’s relaxed rhythm and serve as an excellent reference point for detecting changes in brain arousal, that is, for measuring how different brain regions become aroused during specific cognitive tasks and emotional situations; beta waves (13–30 Hz) are typically considered a reliable indicator of cognitive and emotional activation; and gamma waves (30–100 Hz) are believed to reflect some of the highest functions of the human brain, such as perceptual and higher cognitive processes.

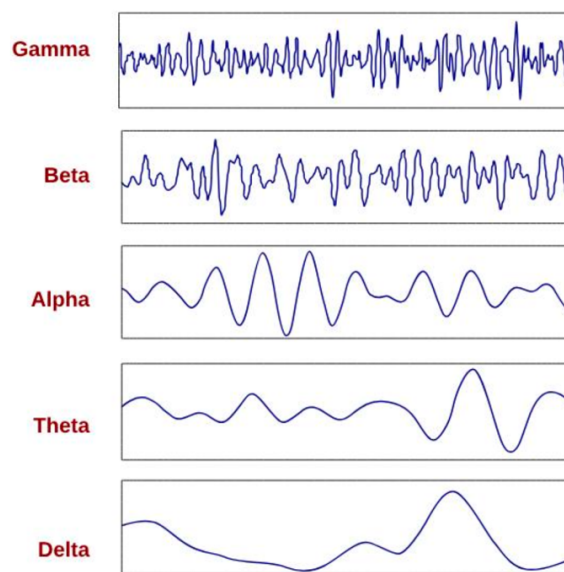


Figure 41 Basic EEG frequency bands (Petrović, 2025: 2)

Although the data obtained through EEG cannot provide entirely precise information regarding the complete “pathway” of neuronal networks underlying emotional reactions, such data nonetheless enable a form of “translation from the electrical language” of participants’ reactions into data through which we can interpret and more profoundly understand their psychological states and behaviours. Moreover, the application of EEG allows for a type of brain mapping that provides information about which kind of electrical waves is active in a given region of the brain at a particular moment, that is, a “visualisation of the activity of different brain regions” (Petrović, 2025: 13). In the field of research on the effects of political marketing, the measurement of electrical brain activity using EEG offers valuable data, particularly in light of EEG’s advantage of recording brain activity in real time - that is, during the execution of cognitive tasks. In this way, we obtain data on the influence of stimuli on participants’ attitudes and behaviour at the level of neuronal activity. In other words, it is not only the participant or their behaviour that conveys information, but the brain itself speaks to us directly in *the electrical languages*.

11. Motivated reasoning and the effects of political marketing: research procedure and presentation of results

The preceding chapters have presented the most relevant concepts, models, and theories for explaining the relationship between motivated reasoning and the effects of political marketing. Key theories of political marketing effects have been outlined, with particular emphasis on Ellul's thesis regarding the dominant role of behavioural influence in the order of the persuasive sequence (Ellul, 1965), as well as the paradigm of motivated political reasoning (Lodge & Taber, 2012; 2013; Kunda, 1990). In addition, motivated reasoning as a cognitive mechanism in which emotions play a dominant role has also been presented from the perspective of neuroscience, that is, through the investigation of the neuronal basis of this mechanism (Westen et al., 2006; Westen, 2007). In line with this, the fundamental concepts and definitions of the basic terms from the fields of cognitive and affective neuroscience have been presented, referring to the neuronal background of the interplay between cognition and emotion in the context of investigating the influence of political persuasion on people's attitudes and behaviour.

Following the findings and model of the neuroscience experiment conducted by Westen, this research aims to take a step further by examining the neuronal foundation of motivated reasoning in the context of readiness for action, that is, the behavioural intention of participants. The aim of this study is to address the gap in the research on the neuronal background of motivated reasoning in the context of the order of the persuasive sequence, by applying a neuroscientific method to test Ellul's thesis and investigate the position of behavioural influence within the persuasive sequence. The experimental design was created to elicit motivated reasoning in participants exposed to specific political messages, while also assessing the mobilisation function of political persuasion under the influence of this cognitive mechanism. By applying a neuroscientific method for examining participants' responses through EEG (electroencephalography), this study investigates the neuronal basis of motivated reasoning under circumstances in which participants are faced not only with the task of considering the consistency of contradictory messages presented to them, but also with their readiness for action related to the content of those messages.

11.1 Similarities and differences in relation to Westen's experiment

Since this research involves the examination of the mobilising role of political persuasion based on the model of Westen's experiment (Westen et al., 2006), it is necessary, prior to presenting the methodology and research design, to indicate which elements of this research differ from Westen's, and which elements have been adopted from his model for investigating the neural bases of motivated reasoning. The similarities and differences are presented below according to the elements of the research design:

- **Participant selection** – As in Westen's experiment, participants were selected based on their attitudes towards socially polarising issues. However, unlike Westen's experiment, in which

participants were selected based on their strong support for either the Republican or Democratic Party, the criterion in this research was participants' stance on four topics characterised by high polarisation within our society. In both cases, polarisation is the key factor, though in Westen's study it concerns political party affiliation, whereas in this research it concerns selected issues.

- **Political messages as stimulus** – In this study, as in Westen's, political messages are displayed to participants via slides during the experiment, designed to activate the mechanism of motivated reasoning. However, while Westen's messages related to statements and actions by candidates of a particular political party, the messages in this study pertain to four selected topics. The principle of eliciting motivated reasoning and testing whether participants can detect inconsistencies remains the same. The difference lies in the fact that in Westen's study, participants assessed whether the candidates' statements and actions were inconsistent, while in this study they evaluate the consistency of messages aligned with their beliefs against new facts presented in opposing messages on the selected topics.

- **Cognitive task** – As mentioned, in both studies participants rate the consistency of the message sources shown on slides on a scale from 1 to 4, in relation to the newly presented facts. However, in this study an additional question was included regarding behavioural intention, i.e., whether the participant would be willing to engage in action related to the topic of the presented political messages.

- **Measurement and analysis** – In order to identify the effect of motivated reasoning, Westen presented slides relating to candidates the participant supports, opposes, and a neutral actor. He then compared the extent to which participants failed to detect inconsistencies in the messages from the supported candidate, identifying this as the motivated reasoning effect. In this study, for each topic two versions of the slides were created - each tailored to one of the opposing views. For two of the four topics, participants were shown slides designed for the group holding opposing views, in order to compare their reactions and identify the motivated reasoning effect. Additionally, the study examines the difference in responses depending on the position of the slide related to behavioural intention within the sequence.

- **Methodology** – Instead of fMRI (functional magnetic resonance imaging), which was used by Westen in his experiment, the neural background of participants' responses in this study is measured using EEG (electroencephalography). The differences between fMRI and EEG have been explained in earlier chapters. The EEG method was selected for this study to shift focus from the identification of brain regions activated during motivated reasoning to the measurement of the electrical activity of the entire cerebral cortex, thereby providing higher temporal resolution than the fMRI method.

Therefore, this study follows the model of Westen's experiment primarily in that it is based on examining the neural bases of motivated reasoning, i.e., the influence of emotion during the activation of that cognitive process, with specially constructed political messages presented to participants as stimuli via slides. The key differences between this study and Westen's experiment are the use of EEG instead of fMRI and the inclusion of participants' statements about their behavioural intentions in addition to assessing the consistency of the presented messages.

11.2 Methodology and Research Design

Before the research results are presented, this chapter will provide a detailed overview of the equipment used, the research design - including the recruitment of participants, testing procedures, and a description of each phase of the experiment, as well as the post-experiment interview - and a description of data collection and processing. The research design involves a mixed-methods approach, that is, the application of both quantitative and qualitative methods. The quantitative methods include pre-testing, the experiment involving EEG measurement, and participants' self-reports through a questionnaire. The qualitative part of the research design refers to the semi-structured interview conducted with participants immediately after EEG testing, with the aim of gathering additional data for interpreting EEG results through the participants' subjective perspectives, that is, their personal interpretation of their reactions to the stimulus.

11.2.1 Equipment

Emotiv Insight is a next-generation wireless EEG device developed by *Emotiv Systems* (Figure 42). It is a wireless EEG device designed for measuring and analysing brain activity in real time. The device is specifically designed for ease of use and quick application, without requiring technical expertise or complex preparation procedures, making it suitable for use in research fields such as psychology, neuromarketing, political marketing, or political communication in general.



Figure 42 EMOTIV Insight (www.emotiv.com)

Emotiv Insight uses five EEG channels arranged according to the international 10–20 system at the following positions: AF3, AF4, T7, T8, and Pz (Figure 43). These positions allow for the detection of brain activity in the frontal, temporal, and parietal cortices. In addition to EEG

sensors, the device includes two reference contacts positioned on the mastoid bone behind the ears, providing stable measurements without significant interference. The electrodes are made of hydrophilic semi-dry polymer rubber, which does not require gel or saline solution, allowing them to function in direct contact with the skin. The EEG signal frequency range of this device is from 0.5 Hz to 43 Hz, with a digital notch filter at 50 Hz and 60 Hz. The device is designed for fast and non-invasive placement, even on untrained participants, which is especially important in experimental settings involving larger numbers of subjects.

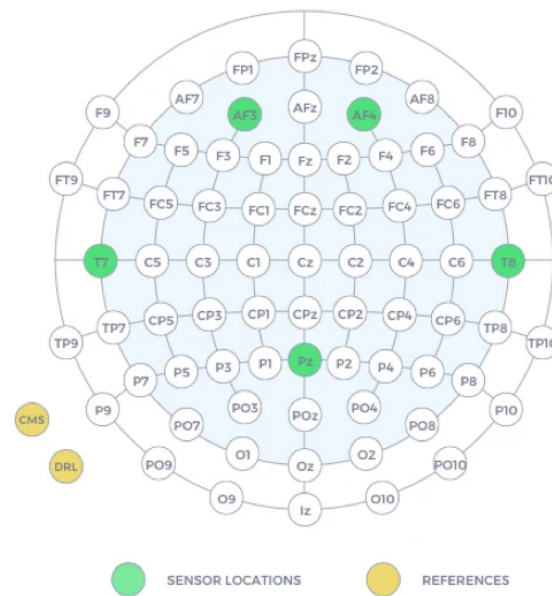


Figure 43 EMOTIV Insight electrode layout (L. R. Krol, 2020, adapted from Petrović, 2025: 1)

Emotiv Insight utilises *Bluetooth Low Energy* technology for wireless data transmission to a computer or mobile device, and its antenna supports Bluetooth 5. This feature allows participants to move freely, unimpeded by cables, thereby promoting more natural behaviour during exposure to experimental stimuli. The device is powered by a 480 mAh battery, which enables operation for up to 20 hours on a single charge. Sampling is performed at 128 Hz per channel with 16-bit resolution. The housing also contains an additional motion sensor based on the ICM-20948 chip, which integrates an accelerometer, gyroscope, and magnetometer (Petrović, 2025). This module allows for the recording of basic head movements and positions, providing an additional mechanism for controlling signal artefacts caused by participant motion during the experiment.

The *Emotiv Insight* device is well-suited for research in the field of political marketing effects and political persuasion, as it enables the recording of neurophysiological responses to stimuli in the form of political messages in real time - whether textual, video, audio, or multimodal. By tracking patterns of brain activity, it is possible to identify, for instance, which types of messages elicit greater attention, emotional engagement, or cognitive resistance—valuable

insights into the cognitive and affective states triggered by exposure to specific political content. Moreover, the device includes functionality for detecting basic facial expressions such as blinking, smiling, frowning, or jaw clenching, which may serve as an additional metric for interpreting unconscious responses to messages. When combined with EEG signals, these data can provide deeper insights into political decision-making processes and emotional responses to message content. In this study, the application of this device, supported by advanced algorithms, enabled the estimation of six emotional and cognitive states (attention, engagement, excitement, stress, frustration, and relaxation). Additionally, changes across all five brainwave frequencies (delta, theta, alpha, beta, gamma) were detected, offering a basis for interpreting the neural substrates of cognitive and emotional states and shifts among participants.

Further technical information on the *Emotiv Insight* device is available on the manufacturer's official website: www.emotiv.com/insight.

11.2.2 Participant Recruitment

The recruitment was based on a questionnaire developed within this research. In the recruitment questionnaire, participants answered questions regarding their attitudes on four topics around which there is high polarisation in our society – (1) the issue of lithium exploitation, (2) attitudes towards the Kosovo policy of the current government, (3) whether the government is fighting corruption or is a source of corruption, and (4) attitudes regarding Serbia's foreign policy orientation. Participant selection was conducted based on the results of the pre-test, that is, the recruitment questionnaire, with the goal of forming two groups of participants holding diametrically opposed views on the aforementioned topics. Therefore, the recruitment questionnaire was designed to select participants who hold strong views on topics characterised by high social polarisation, firmly aligning with one or the other end of the spectrum. In this way, the effect of polarisation achieved in Westen's experiment by selecting participants who strongly supported the Republican or Democratic Party is replicated. Instead of polarisation based on party affiliation, this study focuses on polarisation regarding four political topics.

Participants first answered a question aimed at identifying which side of the issue they belonged to. For the topic of lithium exploitation, they were asked to choose options "Yes" or "No" to the question of whether they supported lithium exploitation. Regarding the Kosovo issue, they chose between the options that "the government of Serbia defends the interests of our state in Kosovo" or that "the government of Serbia betrays the interests of our state in Kosovo". On the topic of corruption, the options were whether "the government fights against corruption" or whether "the government is the source of corruption", and in the case of Serbia's foreign policy orientation, participants selected whether Serbia's foreign policy should be directed towards "the West (the European Union, the United States of America)" or "the East (the Russian Federation, the People's Republic of China)".

Beneath each of these questions, messages relating to all four topics were displayed, created in alignment with the political messages on the slides that would later be shown to them during the experiment. The aim of these questions was to determine the intensity of participants'

attitudes in order to select only those participants with strongly held views, that is, a strong alignment with one or the other pole. For this purpose, participants were asked to indicate, on a scale from 1 to 5, the extent to which they agreed with the given message – 1 indicating complete disagreement and 5 indicating complete agreement. In accordance with the previously stated aim of these questions, participants who selected option 3 were excluded from further selection. In this way, a group of 20 participants was formed, equally divided between supporters of opposing views.

Although all selected participants hold clearly articulated and strongly expressed views, it is important to note that the intensity of those views is not identical across all four topics. Since all participants respond to all four topics, such differences in the intensity of views across various topics are significant, as they allow for the monitoring of variations in the EEG signal of participants while being exposed to messages on each of the four topics, as well as providing insight into how the process of motivated reasoning is activated in each case. In other words, these differences allow us to examine how the same participant reacts in a case where they selected the strongest intensity of attitude on the scale, and how they react to topics on which their views are somewhat less intense.

The final question in the questionnaire related to participants' political orientation, that is, they were asked to indicate which political option they would vote for if parliamentary elections were to be held the following week. This question was included in order to consider, during the analysis of their responses, their attitude towards the source of the messages to which they would be exposed - in other words, whether they supported the government, the opposition, or were undecided.

The recruitment of participants was conducted during March 2025. Participants were recruited from the territory of the city of Novi Sad, aged between 20 and 60 years. A total of 20 participants were recruited, 10 of whom were between 20 and 40 years old, and 10 between 40 and 60 years old. The gender distribution was balanced, with 50 percent women and 50 percent men. Regarding the level of education, 50 percent of the participants had completed secondary education, and 50 percent held a university degree.

Table 5 Participant Demographics

Category	Groups	Number of Participants
Age	20–40 / 40–60	10 / 10
Gender	Female / Male	10 / 10
Education	Secondary / University	10 / 10

11.2.3 Experimental Design

The experimental design consisted of presenting participants with slides containing political messages specifically designed to trigger the activation of motivated reasoning and to guide the participant through all key phases of that cognitive process. The content of the messages and the structure of the experiment were developed in accordance with the model of the experiment conducted by Westen, upon which this study is based. The messages consisted of a combination of authentic and fictitious information. For each topic, participants were shown a total of five slides: (1) the first slide presented an initial political message related to the topic (labelled as *statement*), (2) the second slide contained a political message presenting information that contradicted the information provided on the first slide (labelled as *contradiction*), (3) the third slide presented a political message that rationalised the contradiction on the second slide (labelled as *rationalisation*), (4) the fourth slide asked participants to evaluate, on a scale from 1 to 4, to what extent the source of the message from the first slide was inconsistent with the facts presented (with 1 meaning completely inconsistent, and 4 completely consistent; this slide was labelled as *consider*), and (5) the final slide posed a question about whether they would engage in a specific action related to the given topic, thus assessing behavioural intention and willingness to act (labelled as *action*).

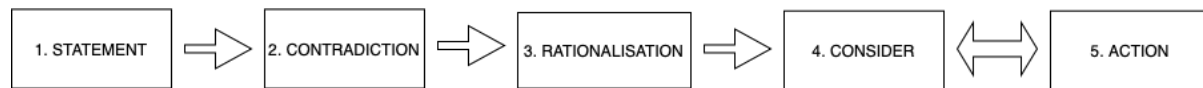


Figure 44 Slides by order

Therefore, the messages on the slides were created with the aim of stimulating motivated reasoning in participants by presenting, following the initial message, new information on the next slide that contradicts the information from the first slide. Subsequently, on the third slide, participants were shown a message that facilitated the rationalisation process, which is one of the key phases in the processing of information under the influence of motivated reasoning. The slide containing the question about how inconsistent the source of the message from the first slide was, in light of the new information, was included for the purpose of identifying the presence and intensity of motivated reasoning, while the slide with the question regarding willingness to undertake a certain action served to identify behavioural intention. It is important to note that the messages and questions were designed to provoke reflection, requiring participants to invest concentration and mental effort. Thus, the messages were not overly simplified, and the questions were formulated in a way that might appear insufficiently clear at first glance. The aim was to stimulate the participant to focus more attentively on the slide content and comprehend the questions thoroughly. In addition, word choice in the messages was carefully considered, with a preference for neutral wording that would not provoke further emotional activation. The purpose of this word selection was to elicit the most authentic reaction from the participant in relation to the topic, without additional stimulation.

Instead of the slides featuring a neutral source, as included in Westen's experiment, this study uses two versions of the slides for each topic. In one version, the slides begin with a political

message on the first slide that aligns with the participant's attitude (this version is marked as *pro*), while in the other version, the first slide presents a political message that contradicts the participant's stance (this version is marked as *contra*). Each participant received two topics in the *Pro* version and two in the *Contra* version, without being previously informed of this arrangement. The slides were presented to participants in this manner to identify differences in reactions to the standard and, conditionally speaking, "opposite direction" of the motivated reasoning process. By "opposite direction" is meant the context in which the participant is exposed to rationalising a stance they do not support, triggered by new information consistent with their own viewpoint, as opposed to the initial message on the first slide. Therefore, it is debatable whether this can still be termed motivated reasoning in the case of the *Contra* version of the slides. Nevertheless, it involves the examination of responses to messages that are tailored to the motivated reasoning of a contrary stance to the one held by the participant, and the comparison of those responses with the regular flow of motivated reasoning related to the participant's own stance.

Furthermore, for half of the topics, the slides were shown to participants in such a way that the fourth slide contained the question regarding their evaluation of inconsistency, and the fifth slide contained the question regarding their willingness to undertake action. For the other half of the topics, the order of these two slides was reversed. The purpose of this reversal was to investigate and identify differences in reactions depending on whether participants were first confronted with the evaluation of inconsistency (influence on attitude) or the decision to undertake action (influence on behaviour). The experimental design was structured so that *Pro* and *Contra* slide versions were alternated for participants, and the reversal of the order of the *consider* and *action* slides was arranged so as to produce approximately the same number of observations for *Pro* and *Contra* versions with each respective ordering of the fourth and fifth slides (Figure 45).

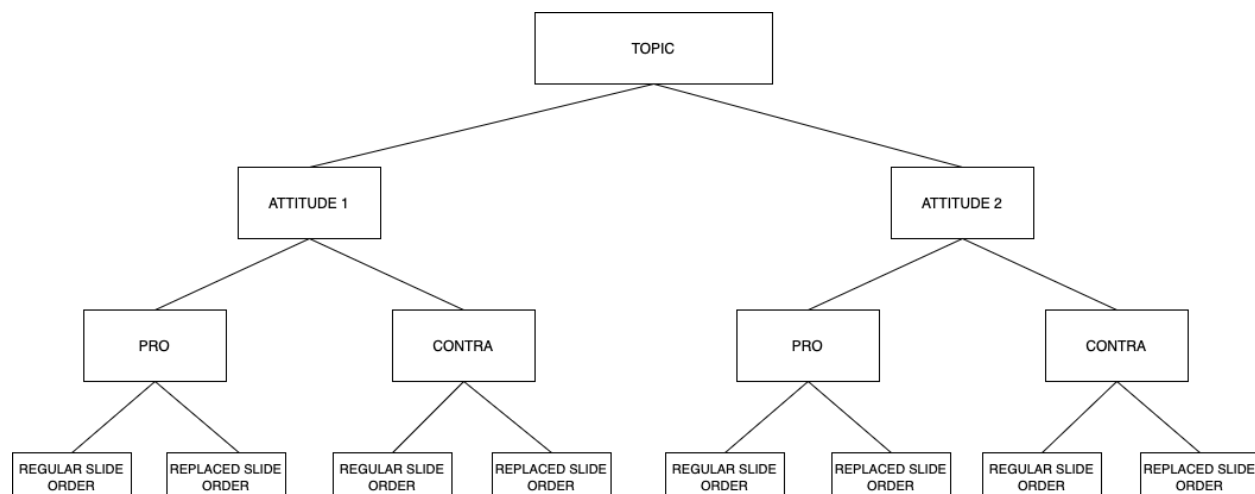


Figure 45 Experimental design

The total number of observations amounted to 80 (20 participants $\times$ 4 topics), and the experimental design was constructed in such a way as to ensure approximately equal numbers of observations for each topic in both the pro and contra versions, as well as with both the standard and reversed order of the *consider* and *action* slides. The experiment was conducted over the course of four days (see table 6).

Table 6 Experiment design/Daily

	Day 1	Day 2	Day 3	Day 4
Slides Version- Slides Order	Pro - Regular	Pro - Replaced	Contra - Regular	Contra - Replaced
	Contra - Regular	Contra – Replaced	Pro - Regular	Pro - Replaced
	Pro - Replaced	Pro - Regular	Contra - Replaced	Contra - Regular
	Contra - Replaced	Contra - Regular	Pro - Replaced	Pro - Regular

11.2.4 Experimental Testing

The experimental testing was conducted from 7 to 10 April 2025. It took place on the premises of the public opinion research agency Ipsos in Novi Sad, in a room adapted for EEG application – the space was isolated from noise, and the interior was designed to minimise distractions and ensure that participants could remain focused on the cognitive task. The testing process was divided into three phases:

- Preparatory phase
 - Stimulus exposure phase
 - Post-experimental phase – Interview
- **Preparatory Phase**

The preparatory phase involved processing all data collected through the recruitment questionnaire, based on which the experimental design table was generated. This table contained participants' attitudes on each of the four topics, as well as the version of the slides (*Pro/Contra*) they were assigned. The design also specified the order in which slides would be presented within each topic—namely, whether the participant would first encounter the slide measuring behavioural intention or the one evaluating perceived inconsistency in relation to the facts presented in the second slide.

Once the experimental design table was created, it was uploaded into an application developed specifically for this study. Based on the participant's identifier, the application automatically loaded the corresponding set of slides with the exact sequence and version tailored to each participant.

During individual preparation, each participant received detailed instructions prior to the start of the experiment. It was emphasised that the procedure involved a completely non-invasive, painless, and safe method. Participants were provided with clear guidance on what was expected of them, how to navigate the slides, and how to respond when prompted with questions.

○ Stimulus Exposure Phase

In the second phase of the experiment, participants were exposed to a series of slides presenting political messages and related questions concerning the four previously mentioned topics around which strong societal polarisation exists. Each participant was shown one set of five slides per topic, totalling 20 slides. During each slide presentation, EEG signals were recorded in real time and expressed in microvolts (μV). In addition to raw EEG data, the application also logged estimated cognitive states, EEG device battery status, electrode contact quality, slide number, and topic number.

Slides were presented to the participants on a laptop screen, having been preloaded into an application that adapted both slide version and order in accordance with the experimental design (Figure 46). After instructions were given, participants sat in front of the computer, launched the application, and advanced through the slides at their own pace after reading each one. On two of the slides that contained questions (consider and action slides), participants responded by clicking the provided answers (yes/no or rating on a 1–4 scale). The application allowed participants to move through the slides on their own to enable the measurement of how long they took to carefully read the message and decide on a response. Furthermore, the application was adapted for EEG testing, to which participants were subjected throughout the duration of the experiment. The four topics were presented continuously (one after another) without any indication of topic switching. This was done to preserve continuity and avoid interrupting the participants' train of thought, thereby ensuring more authentic data on their responses to various slide versions and sequences. They were also not informed about whether they were receiving *Pro* or *Contra* versions of the slides, nor were they told that, for half of the topics, the order of the fourth and fifth slides had been switched.



Figure 46 Participant during the experiment

At the end of this phase, all collected data were stored in accordance with the unique identifier of each participant. EEG and technical data were saved in CSV file format, while the questionnaire data from the two slides (slide start time, exposure duration, response) were saved in JSON format. The response values depended on the type of slide: for the Consider slides, a scale from 1 to 4 was used, while the Action slides required a binary response (yes/no).

- **Post-experimental phase – Interview**

After completing the application-based part of the experiment, each participant took part in a personalised semi-structured interview. The interview was designed on the basis of previously collected data from the recruitment questionnaire and the content of the slides to which the participant had been exposed. During this interview, participants once again declared whether they maintained their position and whether they were willing to take action, and they were also asked to briefly explain their decision and share their impressions regarding the messages they had read. The purpose of this part was manifold: (1) to examine how the participant articulates their views on these topics in a face-to-face conversation, (2) to determine whether the participant retained their initial stance on each of the topics, (3) to examine whether there had been a change in the level of willingness to take action, (4) to assess the consistency between their views and the arguments they used to defend those views, and (5) to obtain a verbal explanation as to why the participant did not change their position (if they had not) despite being confronted with new facts. In addition, the duration of the interview for each topic was recorded, which served as an additional indicator of engagement and intensity of reflection.

11.2.5 Data Processing Description

The processing of experimental results was conducted in several phases with the aim of obtaining valid, precisely organised, and interpretable data, enabling reliable conclusions regarding the neural bases of the influence of political messages under the effect of motivated reasoning, with a particular focus on the impact on the mobilisation function of political persuasion. The data processing included the following phases:

- **Pre-processing and Segmentation**

The first phase of data processing involved the pre-processing of EEG signals and their division into thematically and temporally structured segments. For each participant, isolated EEG signal excerpts and corresponding cognitive states were generated – separately for each topic and each individual slide. In this way, the database was organised hierarchically across three levels: participant **identifier** → **topic** → **slide**.

Pre-processing of the signals included the application of a *Butterworth* filter to remove electrical noise and obtain a stable EEG signal in the range of 0.5 Hz to 43 Hz, enabling the analysis of basic brainwaves without interference from external sources. Alongside EEG data, metadata for each participant were loaded (including slide order, duration, responses, and other parameters such as gender, education, and age). Based on the EEG values from all available channels, a *Short-Time*

Fourier Transformation (STFT) was applied, allowing for spectral analysis and the calculation of signal power across standard frequency bands (brainwaves): delta, theta, alpha, beta, and gamma. The obtained values represent the intensity of brain activity for each frequency band and electrode.

Group Analysis

- **Slide Duration Analysis** – Temporal values for the display of each slide were extracted from the JSON files for each participant. The data were expressed in seconds, organised such that the final row refers to the average duration per slide, while the final column indicates the average duration of the experiment for each participant.
- **Analysis of Emotional and Cognitive States** – For each displayed slide, the values of six cognitive parameters were recorded (calculated based on the algorithm provided by Emotiv Insight): attention, engagement, excitement, interest, relaxation, and stress. For all these parameters, minimum, maximum, and mean values were calculated, enabling the identification of patterns of cognitive response to the content of political messages.
- **Response Analysis** – Separate processing was conducted for *Consider* and *Action* slides. For the *Consider* slides, a scale from 1 to 4 was used, while the responses to the *Action* slide questions were binary (yes/no). The collected responses were aggregated by participant and by topic, and average values were derived.
- **ANOVA Analysis** – For a deeper statistical examination of the experimental data, an ANOVA (*Analysis of Variance*) was conducted, which enables the identification of statistically significant differences between groups within various thematic and cognitive dimensions. All available quantitative parameters included in the experiment were used: slide display duration, EEG spectral components (delta, theta, alpha, beta, gamma), as well as values of cognitive states (Attention, Engagement, Excitement, Interest, Relaxation, Stress).

The data were organised in the file *ANOVA.xlsx*, where each row represents one thematic unit for a specific participant. The columns include the following categories:

-Demographic characteristics - SubjectID, Gender, Age, Education

-Topic information - TopicID, Support, StimulusPolarity, QuestionOrder

-Temporal and EEG metrics for each of the five presented slides (Statement, Contradiction, Rationalization, Consider, Action), including:

*_Duration – slide duration,

*_Attention, *_Engagement, *_Excitement, *_Relaxation, *_Interest, *_Stress – cognitive states,

*_Delta, *_Theta, *_Alpha, *_Beta, *_Gamma – EEG frequency bands.

Based on these data, multiple univariate and multivariate analyses of variance were conducted in order to identify the factors that have a statistically significant effect on the cognitive and neurophysiological responses of participants in relation to the content of political messages. An additional description of the columns and values is provided in the table *ANOVA_Dictionary.xlsx*, where each column is accompanied by information regarding its meaning, data type, and value domain. For instance, the variable *TopicID* covers four topics: (1) Lithium, (2) Kosovo, (3) Corruption, and (4) East/West, while *Gender* uses the values 1 (male) and 2 (female).

○ Interview analysis

The final phase of the experiment included a personalised interview with each participant, and the results were systematised in the file *Interview_Analysis.xlsx*. Each row of the table corresponds to one participant, while the columns are thematically and temporally structured. For each of the four analysed topics, the following data were recorded:

-Interview duration (<topic>_InterviewDuration) – expressed in seconds

-Post-experiment attitude (<topic>_InterviewAttitude) – expressed in the following categories: *Maintaines, Not maintains, Uncertain*

-Attitude consistency (<tema>_InterviewConsistency) – expressed in the following categories: *Consistent, Inconsistent*

-Readiness for action (<tema>_InterviewAction) – expressed in the following categories: *Takes action, Does not take action*

Additionally, at the end of the table there is a column entitled *TotalTime*, which contains the total duration of all interviews for the given participant, summing the length of the discussion across all topics. This value may serve as an indicator of engagement and the cognitive effort invested in reflection following exposure to political messages. The analysis of these data enables a deeper understanding of post-exposure effects and potential changes in participants' attitudes and intentions, as well as an evaluation of the degree to which their verbal responses are consistent with their neurophysiological reactions and behavioural responses during the experiment.

○ Individual Analysis

Individual analysis enables the examination of data at the level of each individual participant. EEG signals and cognitive states are displayed in the time domain, with transitions between different topics marked by blue markers and transitions between slides marked by red markers. In addition to the overview of the entire experimental record, the system allows the user to select a specific topic or a particular slide for more detailed analysis.

This phase also includes the implementation of a functionality for generating brain activity maps (**brain mapping**) for each participant. These maps display the spatial distribution of EEG power within a specific frequency band for a given topic or slide. Visualisation of this data enables

the researcher to identify which regions of the brain were most active during the processing of a given message, which is highly relevant in the context of understanding emotional resonance, attention, and cognitive load elicited by the message content. The significance of brain mapping in this context lies in the fact that it provides spatial and frequency-based insight into reactions that are often unconscious or cannot be precisely articulated during the experiment itself. This establishes a strong link between objective neurophysiological responses and subjective verbal answers, thereby enabling a deeper interpretation of the effects of political marketing on participants' attitudes and behaviour.

11.2.6 Software Architecture

Three key software components were used in this study:

- **Emotiv Cortex** – the application programming interface (API) developed by Emotiv for communication with the Emotiv Insight EEG device
- **PTE** (Psychological Testing and Evaluation) – an application for conducting experiments and collecting data, specifically developed for the purposes of this study.
- **PAV** (Psychological Analysis and Validation) – an application for result analysis and evaluation of experimental metrics, specifically developed for the purposes of this study.

○ **Emotiv Cortex**

Emotiv Cortex represents an application programming interface (API) developed by the Emotiv company to enable researchers and developers to easily integrate Emotiv devices and their functionalities into custom software systems. The API is designed to facilitate access to EEG data and to support the development of applications in fields such as cognitive psychology, neuroscience, education, and even virtual reality.

The Emotiv Cortex API supports multiple programming languages, including Python, C#, C++, JavaScript, among others, which allows for a high degree of flexibility in application development across various platforms. Through this interface, it is possible to:

- Manage EEG devices (establishing connection, monitoring status, refreshing the connection)
- Collect and process raw EEG data in real time
- Compute cognitive metrics and states such as attention, stress, relaxation, and engagement
- Analyse spectral data, topographic distributions, and changes in mental states over specific time segments of the experiment
- Utilise the device's embedded sensors (accelerometer, gyroscope, magnetometer) to track participant movement and head orientation

- Develop Brain-Computer Interface (BCI) systems in which the user can operate software or a device based solely on mental commands

The Cortex API was of particular importance in this study, as it enabled stable communication between the EEG device and the experimental application, ensuring simultaneous transmission of multiple data streams (brain signals, cognitive states, connection quality, battery level, and movement). This provided a high level of reliability and precision in synchronising neurophysiological responses with the exact timing of stimulus presentation. An additional advantage of the Emotiv Cortex platform lies in its comprehensive technical documentation, code examples, tutorials, and an active online support community. Emotiv Cortex has proven to be a stable and efficient foundation for all other software components used in this study, enabling reliable data collection and organisation of EEG signals, which were subsequently processed and analysed through custom-developed applications.

○ PTE – Psychological Testing and Evaluation

The Psychological Testing and Evaluation (PTE) application was developed as the central tool for conducting this experiment, which measures participants' brain activity during exposure to political messages. The application was implemented in the C# programming language using *Windows Presentation Foundation* (WPF) for the user interface, and provides full control over the entire process – from loading the experimental design to recording EEG signals and exporting the results.

The operation of this application is divided into four functional segments:

- (1) Loading of experimental material
- (2) Connecting the EEG device and displaying metrics
- (3) Conducting the experiment
- (4) Saving and exporting the results

1. Loading of Experimental Material

At the very beginning of the procedure, the user imports two key files: (1) the experimental design – a CSV file containing a list of all participants with their identification numbers, topic-specific attitudes, assigned slide set version (Pro/Contra), and slide presentation order, and (2) a structured file containing slide content, organised by topic (e.g., Lithium, Kosovo, etc.) and by variation (e.g., *Pro*, *Contra*). Each variation consists of five slides: *statement*, *contradiction*, *rationalisation*, *consider*, and *action*. Upon successful loading, the application connects the design data with the content so that each participant receives a personalised sequence of slides corresponding to their previously expressed attitudes.

2. Connecting the EEG Device and Displaying Metrics

The user is enabled to connect to one of the available EEG devices (in this study, Emotiv Insight) from a displayed list of devices. Once the device is selected and the connection established, the application displays the following information:

- Connection status
- Electrode contact quality per channel (AF3, T7, Pz, T8, AF4)
- Battery level and overall contact quality
- Spectral power per channel for each frequency band (delta, theta, alpha, beta, gamma)
- Cognitive states: Attention, Engagement, Excitement, Interest, Relaxation, and Stress

These data are displayed in a dedicated tab named *Metrics*, allowing the researcher to monitor the device's status and signal stability in real time.

3. Conducting the Experiment

The experiment is initiated by entering the participant's ID number, which triggers the automatic loading of their personalised slide sequence and version. Slides are displayed one by one, in the order predefined in the previously loaded design. During the display of each slide, the application records:

- Start and end times of viewing
- EEG samples from all five channels
- Cognitive metrics from the Cortex API
- Topic and slide indices

A specific mechanism is used to record responses on slides that include:

- Evaluation on a 1–4 scale
- Binary response (Yes/No)

Other slides serve as textual stimuli without the option for explicit participant responses, intended solely for reading.

4. Saving and Exporting Results

Upon the completion of the experiment, data are saved in two files:

- A JSON file – contains all participants' responses, start times, and durations of each slide, as well as the structure of the experiment
- A CSV file – contains time-synchronised data on EEG signals, cognitive metrics, electrode quality, battery status, and slide and set indices

These two formats enable further analysis, either within the custom evaluation application or via other software packages (e.g., Python, MATLAB, Excel). The PTE application thus integrates personalised political message presentation, real-time EEG recording, and automated data saving, making it suitable for experimental research in political marketing and political persuasion. Its modular architecture allows for easy extension of functionalities and adaptation to other types of content or devices.

- **PAV – Psychological Analysis and Validation**

The PAV (*Psychological Analysis and Validation*) application is a tool developed in the Python programming language using the `customtkinter` library for its user interface, designed for interactive analysis of EEG signals and participants' psychological responses during the experiment. PAV enables the loading of EEG data (either raw or pre-processed), signal processing, visual inspection of individual records, statistical group analysis, and neurovisualisation of brain activity in the domain of frequency band mapping.

11.2.7 Data Loading and Processing

PAV allows the user to load EEG recordings from CSV files, along with the simultaneous import of associated metadata from JSON files. Upon loading, EEG signals are filtered using a Butterworth band-pass filter (0.5–43 Hz), and the DC component (Direct Current - unidirectional voltage component) is removed. For the channels AF3, AF4, T7, T8, and Pz, visualised signals and cognitive states - such as attention, engagement, stress, and others - are displayed.

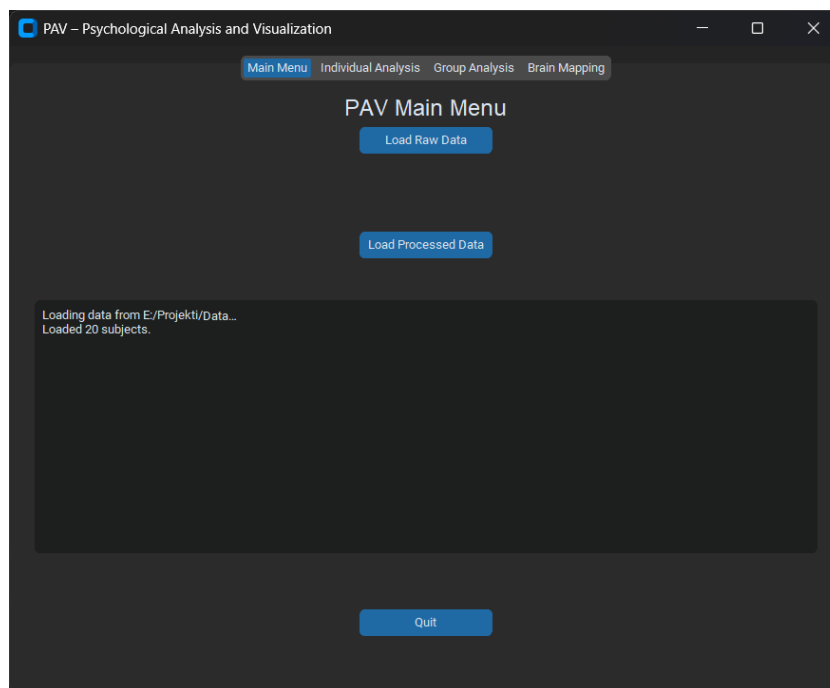


Figure 47 Main menu and data loading in PAV

○ Individual Analysis

The *Individual Analysis* tab allows the user to select a participant, a topic, and a specific slide type, after which the following are displayed:

- EEG signals (with options to select the displayed channels and vertical spacing in microvolts)
- Cognitive states (expressed as percentages) obtained based on signal evaluation
- Participant metadata

On the graphs, the boundaries between slides are clearly marked with red lines, and the boundaries between topics with blue lines. All graphs can be exported as images (in PNG format), and the selected data can be exported as a CSV file.



Figure 48 Individual - level analysis for the entire experiment



Figure 49 Individual - level analysis for one topic/All slides

○ Group Analysis

The *Group Analysis* tab provides multi-layered statistical processing of data through the following subcategories:

- JSON and EEG Durations: comparison of slide viewing durations from the JSON file and actual EEG recordings
- Cognitive State Analysis: display of minimum, maximum, and average values of cognitive states per participant and slide
- Question Analysis: analysis of ratings on a scale (1–4) and binary responses (Yes/No)
- Interview Analysis: results of interviews with participants (attitude, consistency, readiness to take action, duration)

All tables can be exported in CSV and XLSX formats. Figures 50 and 51 present examples of some of the data exported into tables following the data processing stage.

The screenshot shows the PAV - Psychological Analysis and Visualization software interface. The 'Group Analysis' tab is selected, and the 'JSON Durations' subcategory is active. The table displays data for 20 participants (ID 1 to 20) and an average row. The columns represent various metrics related to slide durations and cognitive states, including JSON and EEG durations, cognitive state analysis, question analysis, interview analysis, and ANOVA results. The table is organized into several groups of columns, with the first group containing 10 columns for JSON and EEG durations, the second group containing 10 columns for cognitive state analysis, and the third group containing 10 columns for question analysis, interview analysis, and ANOVA results. The 'Total' column is located at the end of the table.

ID	Litjum_State	Litjum_Centr	Litjum_Ratio	Litjum_Consi	Litjum_Active	Kosovo_State	Kosovo_Centr	Kosovo_Ratio	Kosovo_Consi	Kosovo_Active	IntokZapad_St	IntokZapad_C	IntokZapad_B	IntokZapad_C	IntokZapad_A	Konupcija_Sta	Konupcija_Coi	Konupcija_Rat	Konupcija_Coi	Konupcija_Act	Total
1	17.0	15.1	14.3	15.3	7.0	20.4	23.7	22.3	6.1	5.7	21.2	17.4	22.8	10.6	7.0	21.3	21.1	28.1	9.1	5.0	210.5
2	40.1	31.8	36.1	29.3	17.9	36.4	42.7	34.7	23.6	16.7	28.2	24.3	29.6	12.7	15.9	29.4	30.9	27.9	21.8	15.5	575.5
3	80.6	36.4	22.2	18.2	9.7	32.3	30.7	31.4	40.3	13.4	30.7	31.6	26.1	12.3	15.0	28.1	30.7	20.8	28.2	7.2	507.7
4	46.8	34.5	45.3	63.5	13.6	46.5	29.3	56.2	16.0	16.1	38.4	29.0	31.9	11.1	9.8	25.9	47.7	19.4	31.8	14.2	630.0
5	30.5	19.5	15.6	38.4	7.9	23.5	25.0	34.9	8.1	35.0	21.0	17.4	20.2	26.6	7.8	18.1	24.0	25.0	32.5	8.8	439.8
6	26.7	19.9	27.4	31.7	25.3	23.7	23.3	24.5	11.1	6.4	18.7	14.2	21.2	10.1	6.9	16.8	18.1	26.2	5.9	11.5	369.6
7	29.9	19.3	25.2	19.2	12.3	27.9	31.8	31.5	10.2	32.2	19.7	14.5	24.3	8.0	9.0	21.2	40.3	16.2	4.9	10.4	418.0
8	51.5	28.9	43.5	12.0	67.3	37.3	40.6	51.1	14.7	8.3	32.8	50.2	33.8	12.7	14.6	27.0	48.1	26.0	6.7	19.0	626.1
9	38.2	27.8	30.1	19.0	17.1	30.5	37.3	45.5	17.5	18.6	48.0	44.1	32.3	15.0	17.5	48.5	38.1	58.1	18.1	24.8	811.1
10	28.1	20.5	19.5	13.6	42.6	30.1	29.7	36.0	21.7	10.1	25.0	25.7	23.4	12.7	18.4	25.5	46.3	27.6	23.4	16.7	496.6
11	24.3	28.9	14.9	20.9	16.0	38.0	24.1	28.6	25.3	20.7	15.9	21.3	22.6	12.2	13.3	17.1	44.0	19.9	10.7	9.7	428.4
12	31.5	27.3	22.9	18.0	21.9	30.5	33.2	29.7	17.9	13.9	36.0	38.4	24.8	16.5	16.9	25.4	44.1	25.6	14.7	12.5	502.7
13	37.1	25.6	40.6	16.1	10.9	51.3	27.1	46.6	14.0	11.9	28.0	23.0	27.1	13.0	8.4	28.2	28.6	37.7	22.2	8.8	506.2
14	54.4	37.1	40.4	30.6	27.9	35.0	30.0	55.0	31.7	40.3	30.5	24.6	34.6	15.6	16.6	28.5	51.7	24.9	26.2	11.7	655.3
15	32.1	15.5	16.3	30.8	12.0	27.7	28.0	25.7	14.5	20.9	22.8	24.8	18.3	10.0	10.8	22.2	53.3	26.1	19.7	30.5	480.9
16	23.3	21.8	14.3	8.1	31.5	20.2	22.9	21.3	33.7	44.1	20.9	24.5	19.7	6.2	16.5	19.0	38.1	19.9	53.5	13.1	482.6
17	47.8	53.0	66.1	21.7	44.6	81.7	86.4	61.8	17.9	39.4	54.5	23.7	50.6	20.6	21.2	41.8	49.0	56.7	21.5	28.8	896.8
18	26.2	18.3	24.0	11.4	15.2	21.6	18.7	37.0	8.7	67.3	18.8	17.7	20.6	9.6	9.3	18.0	25.5	27.6	10.7	19.7	425.9
19	36.5	38.1	29.1	16.8	22.9	43.0	48.1	67.4	19.7	12.2	36.7	29.4	38.8	23.3	20.6	43.1	100.0	34.2	10.7	44.9	717.5
20	59.7	35.2	64.9	48.0	33.7	55.1	47.8	51.1	72.9	27.0	67.1	57.2	45.0	70.8	30.0	57.6	55.3	69.3	34.4	19.1	1001.2
Avg	35.6	27.2	31.1	24.1	22.9	36.4	34.4	40.7	21.4	22.6	30.7	27.8	28.8	16.5	14.3	27.9	43.2	30.5	20.3	16.6	553.2

Figure 50 Tabular representation of slide durations for all participants

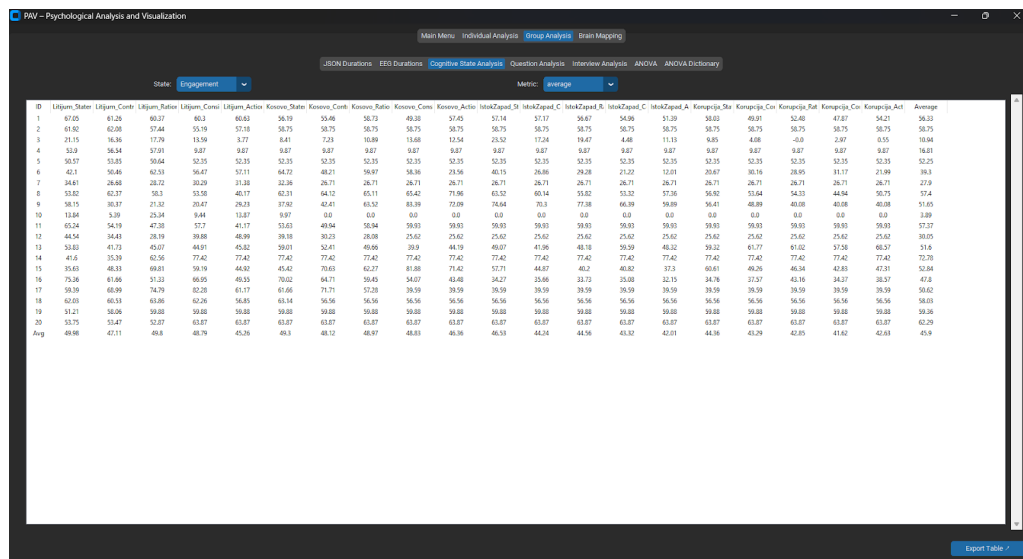


Figure 51 Analysis of one cognitive state across all participants

Brain Mapping (*Brain Mapping*) utilises the programming libraries MNE, FOOOF, SciPy, and Matplotlib to visualise EEG spectral power across channels and frequency bands (delta, theta, alpha, beta, gamma, and full-spectrum analysis). The application enables the display of up to six maps simultaneously, arranged in a 2×3 layout (three columns and two rows). Each map represents the spatial distribution of spectral power for the selected frequency band. The visualisation is based on the calculation of *Power spectral density* (PSD) using the *Welch method*, with subsequent aggregation of power values by band. All results are displayed as **topographic maps** in accordance with the standard 10–20 EEG configuration, and can be exported as high-resolution images. The brain mapping procedure relies on a methodology published in the scientific literature (Petrović et al., 2024).

11.3 Presentation of Results

The presented research design generated a wealth of data that allows for a multifaceted analysis of the neural bases of respondents' reactions to political messages to which they were exposed. The methods of data collection and processing, as well as the experimental design itself, make it possible to analyse participants' responses on several levels – within a specific topic, within the attitudinal group to which participants belong, in relation to the version of the slide they were shown, and in the context of individual slides. Furthermore, this research design and the equipment used allow for an analysis of participants' reactions in the context of changes within each of the six emotional-cognitive states, as well as within the five frequency bands – brainwave ranges. In addition, the participants' responses from the questionnaire and the interview provide further behavioural metadata, which serve not only to improve the interpretation of the obtained results, but also to identify the activation of the motivated reasoning mechanism. Such obtained data enable a targeted analysis – both at the group and individual levels – of the neural bases of participants' responses during different phases of the motivated reasoning process: confrontation with a supported or unsupported attitude, exposure to contradictory new information, rationalisation and evaluation, that is, conclusion-making, and especially the phase of decision-

making related to behavioural intention, i.e., readiness to take action. In addition, the brain mapping method offers complementary insight into the neural background of participants' responses.

The analytical potential of the collected data exceeds the scope of the hypotheses set out in this study; therefore, for the purposes of this research, only those results and levels of analysis were selected that were assessed as most relevant in the context of testing the stated hypotheses. To this end, the following were used as key independent variables in the conducted statistical analyses:

- The attitude held by participants regarding the topics;
- The version of the slide set to which they were exposed (Pro/Contra);
- The order of the *consider* and *action* slides (fourth and fifth slide);
- The individual slides presented (*statement*, *contradiction*, *rationalisation*, *consider*, *action*)

And the following as dependent variables:

- EEG frequency band measures, i.e., brainwave activity (delta, theta, alpha, beta, gamma);
- Emotiv EEG measures of six emotional-cognitive states (attention, engagement, excitement, interest, relaxation, and stress);
- Participants' responses to behavioural questionnaires.

○ Slide Presentation Duration

As previously noted, the slides were presented to participants through an application developed specifically for the purposes of this research, and participants advanced the slides themselves. This approach made it possible to collect data on the time each participant required to process the message on a given slide and to decide when to move on to the next one.

Key findings:

- Out of the total slide viewing time, the *statement* slide accounted for 23.6%, the *contradiction* slide 24%, the *rationalisation* slide 23.7%, the *consider* slide 14.9%, and the *action* slide 13.8%.
- Presentation time per individual slide in the Pro and Contra versions shows that participants spent more time on Contra slides for the topics of Lithium and Corruption, while they spent more time on Pro slides for the topics of Kosovo and East/West.
- The total time spent viewing all slides in the Pro version amounted to 498 seconds, while in the Contra version it amounted to 607 seconds.

Total slides presentation duration

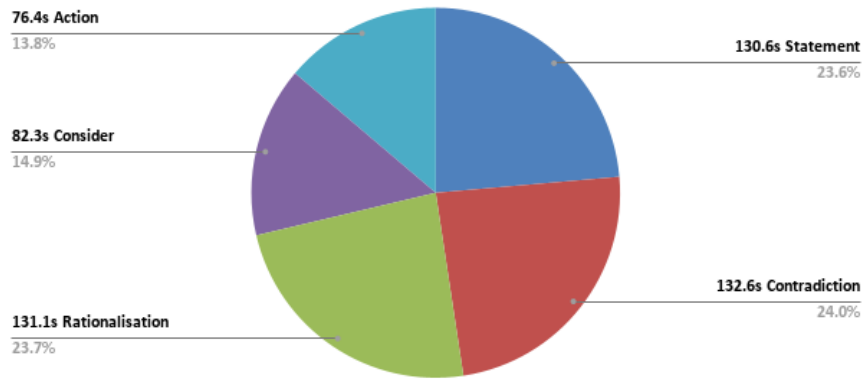


Figure 52 Total slides presentation duration

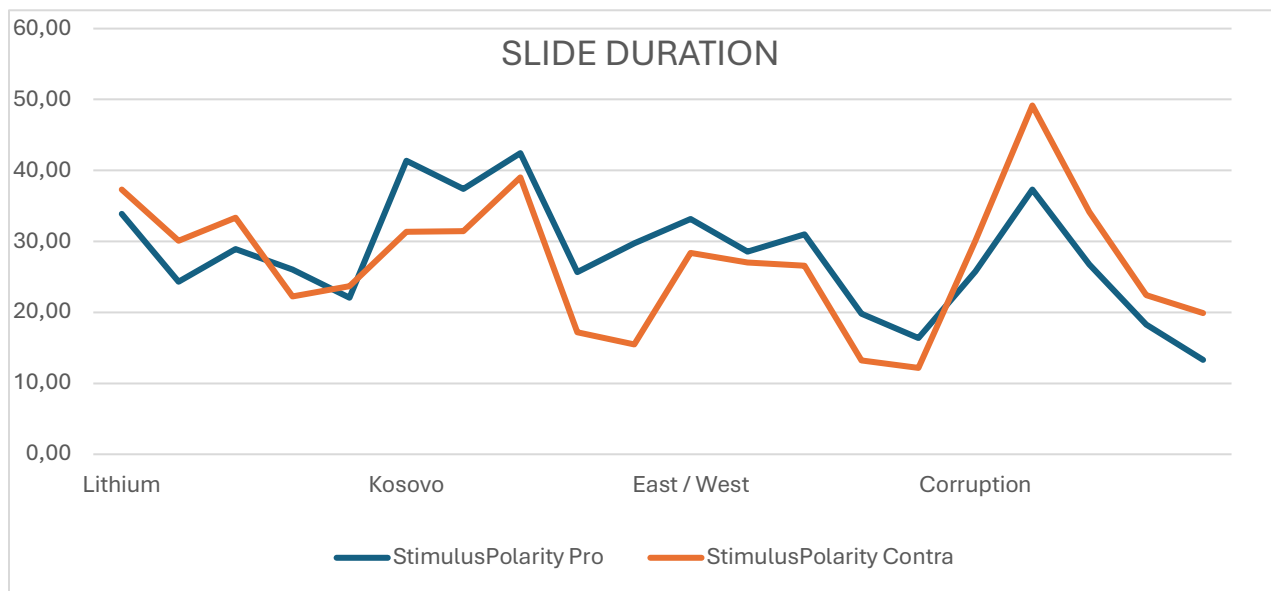


Figure 53 Slides duration for all topics in Pro and Contra version

Pro/Contra Duration

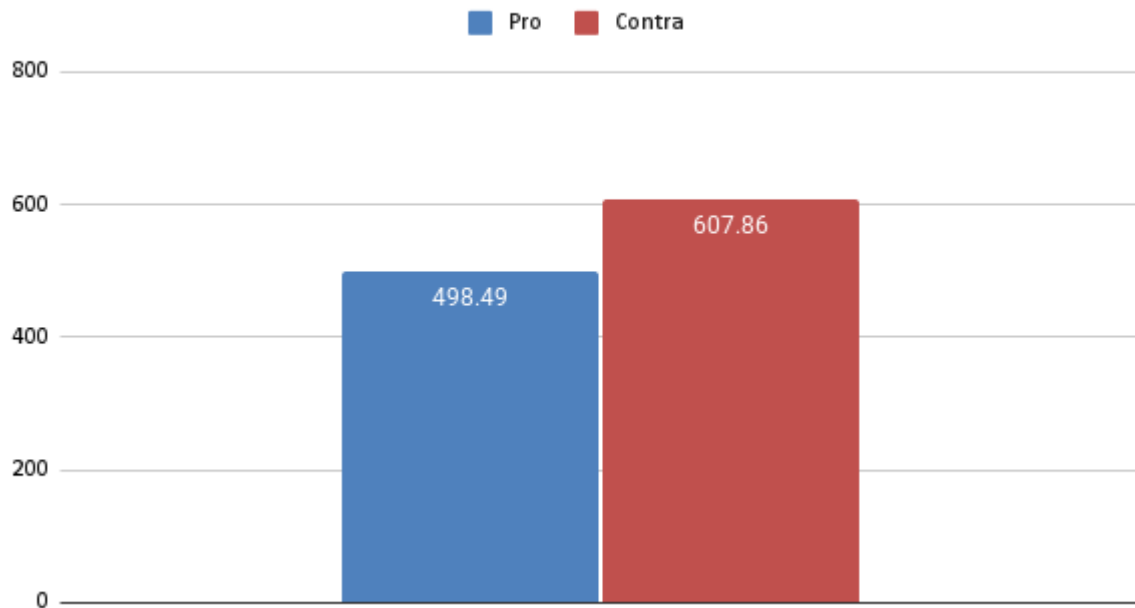


Figure 54 Total slides duration in Pro and Contra version

○ Behavioural Data – Participants’ Responses to Questionnaires Before, During, and After the Experiment

In this section, the participants’ responses during the experiment to the questions concerning the assessment of the consistency of the presented messages in relation to the newly introduced information, as well as their responses regarding engagement in action, will be presented. In figures 55 and 56 the participants’ responses in the Pro and Contra versions during the experiment are displayed, while in figures 58 and 59, their responses given during the post-experimental interview are presented. Figure 57 presents their self-reported positions during the interview regarding whether they retained their initial stance on the four topics. The analysis of the participants’ responses before, during, and after the experiment is important not only for interpreting differences depending on whether the participant is in the phase of declaration (during recruitment), in the phase of exposure to messages that contradict their stance (during the experiment), or in the phase of elaborating their attitude in a face-to-face conversation (during the interview), but also for interpreting these differences in the context of insight into the participants’ neural activity during the experimental testing.

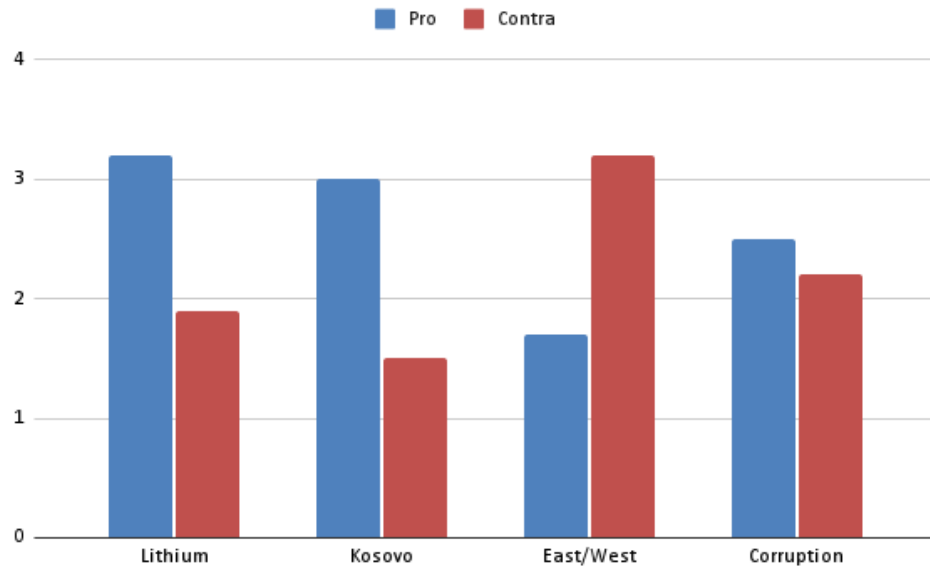


Figure 55 Ratings from Consider slides in Pro and Contra version

Action Ratings

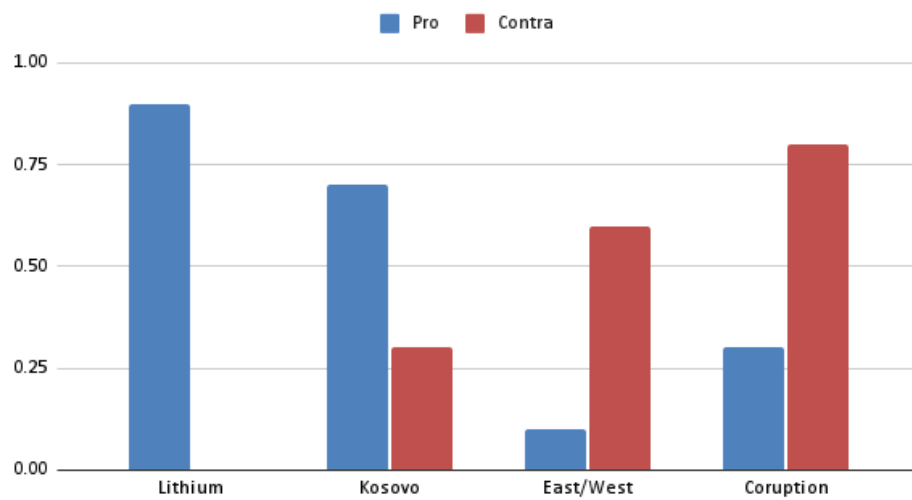


Figure 56 Ratings from Action slides in Pro and Contra version

Attitude/Post-Experiment Interview

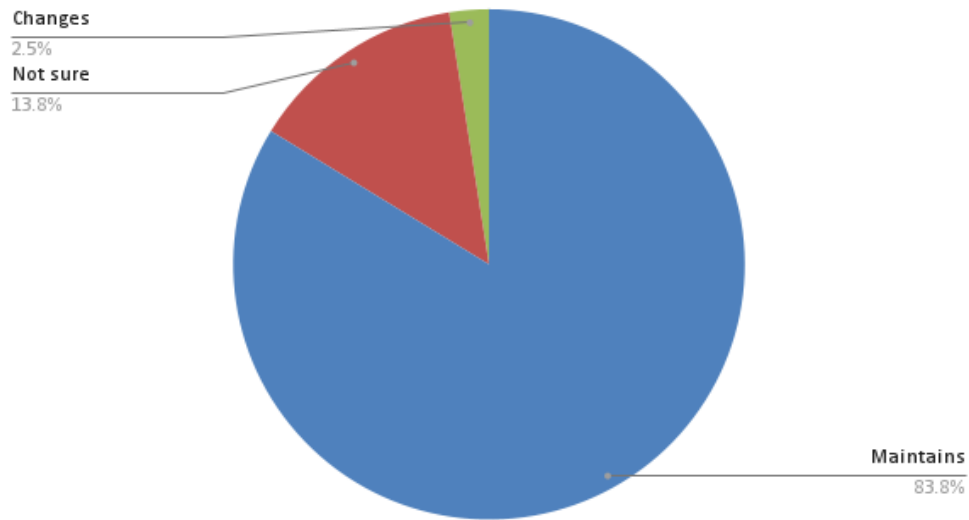


Figure 57 Participants attitudes in post-experiments interview

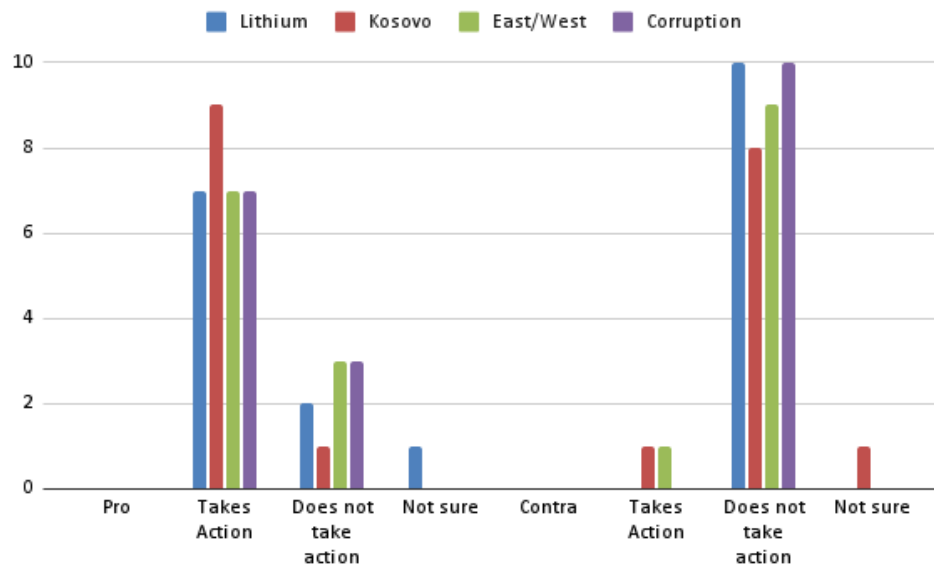


Figure 58 Action ratings by topic in Pro and Contra version in post-experiment interview

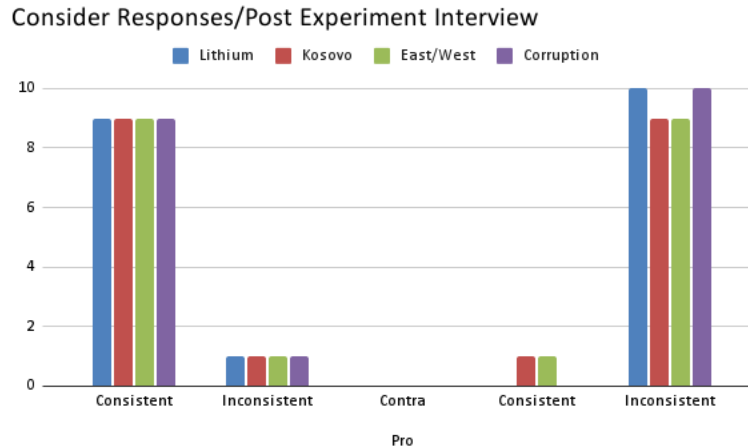


Figure 59 Consider ratings by topic in Pro and Contra version in post-experiment interview (the first two sets of columns represent the ratings in the Pro version, while the other two represent the ratings in the Contra version)

○ Influence of Slide Content and Slide Set Version on Cognitive States

To analyse the influence of the slides presented to participants and the version of the slide sets (*Pro/Contra*) on Emotiv metrics for six cognitive states (attention, engagement, excitement, interest, relaxation, and stress), a repeated measures analysis of variance (*Repeated Measures ANOVA*) was conducted. This analysis measured the influence of different slides—i.e. phases of motivated political reasoning—on participants’ cognitive states, and the effect of whether they were presented with a set of slides beginning with a statement they support or one they oppose. As previously explained, in the version of the slide set labelled as *Pro*, participants are first presented with a statement they support, followed by a slide that contains new information contradicting their attitude, then a slide that facilitates rationalisation of the conflicting information, and finally slides where they respond to how consistent the message source from the first slide is with the new information, and whether they would engage in action related to the topic. In the *Contra* version of the slide set, the process is reversed.

The aim of this measurement is to examine the neural bases of motivated reasoning in the context of different phases and different directions of this mechanism. In other words, it seeks to assess how participants’ cognitive states are influenced by the content of political messages across different phases of motivated political reasoning, as well as by the activation of different motives or goals (Lodge & Taber 2012; 2013; Kunda 1990). Thus, by presenting different slide set versions (*Pro/Contra*), the study examines the neural background in cases where participants are expected to exhibit *partisan goals* (Lodge & Taber 2013) or *directional goals* (Kunda, 1990) and in cases where they are expected to be guided by *accuracy goals* (Lodge & Taber 2012; 2013; Kunda 1990).

Accordingly, to investigate how emotional and cognitive responses (EMOTIV metric values) varied across different slide types, and whether these effects were modulated by the congruence between the message and participants’ attitudes (*Pro/Contra* version), a repeated measures ANOVA with three factors was conducted: 5 slides (*Statement, Contradiction,*

Rationalisation, Consider, Action) × 6 Emotiv cognitive states (*Attention, Engagement, Excitement, Interest, Relaxation, Stress*) × 2 slide set versions (*Pro/Contra*: congruent vs. incongruent). Mauchly's test indicated violations of the sphericity assumption for all within-subjects factors and their interactions, and Greenhouse-Geisser corrections were applied where appropriate. The uncorrected degrees of freedom are presented below, along with the corrected p-values.

Table 7 Repeated measures ANOVA/Slide x EMOTIV x Version of the slides set

Within Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p	η^2
SLIDE	1279.715 ^a	4 ^a	319.929 ^a	4.633 ^a	0.001 ^a	0.002
SLIDE * Pro/Contra version	937.287 ^a	4 ^a	234.322 ^a	3.394 ^a	0.010 ^a	0.001
Residuals	21543.158	312	69.049			
EMOTIV	192575.612 ^a	5 ^a	38515.122 ^a	77.590 ^a	< .001 ^a	0.293
EMOTIV * Pro/Contra version	247.951 ^a	5 ^a	49.590 ^a	0.100 ^a	0.992 ^a	3.777×10^{-4}
Residuals	193593.933	390	496.395			
SLIDE * EMOTIV	974.702 ^a	20 ^a	48.735 ^a	2.296 ^a	< .001 ^a	0.001
SLIDE * EMOTIV * Pro/Contra version	277.950 ^a	20 ^a	13.897 ^a	0.655 ^a	0.872 ^a	4.234×10^{-4}
Residuals	33108.076	1560	21.223			

Note. Type III Sum of Squares

Between Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p	η^2
Pro/Contra version	166.432	1	166.432	0.061	0.805	2.535×10^{-4}
Residuals	211769.407	78	2714.992			

Note. Type III Sum of Squares

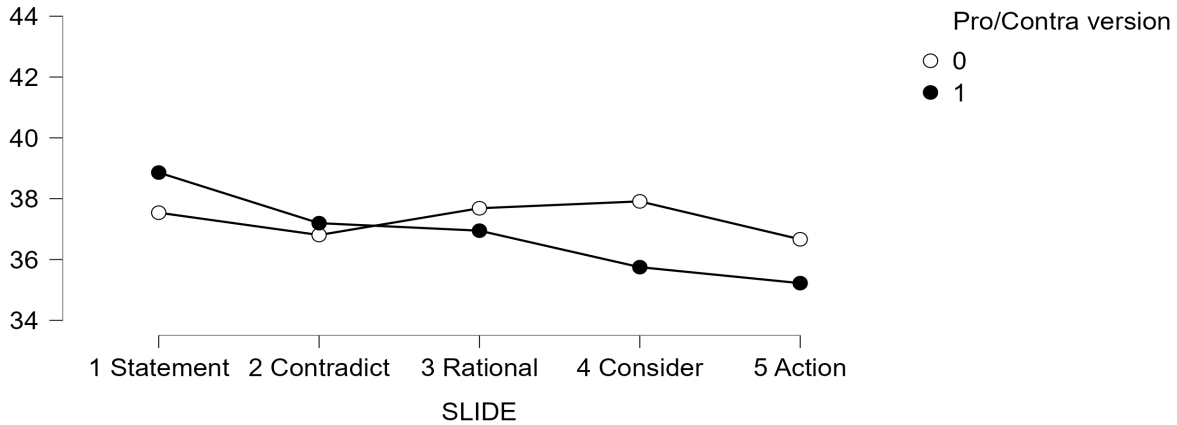


Figure 60 Descriptives plot/Slide x Version of the slides set (1-Pro version, 0-Contra version)

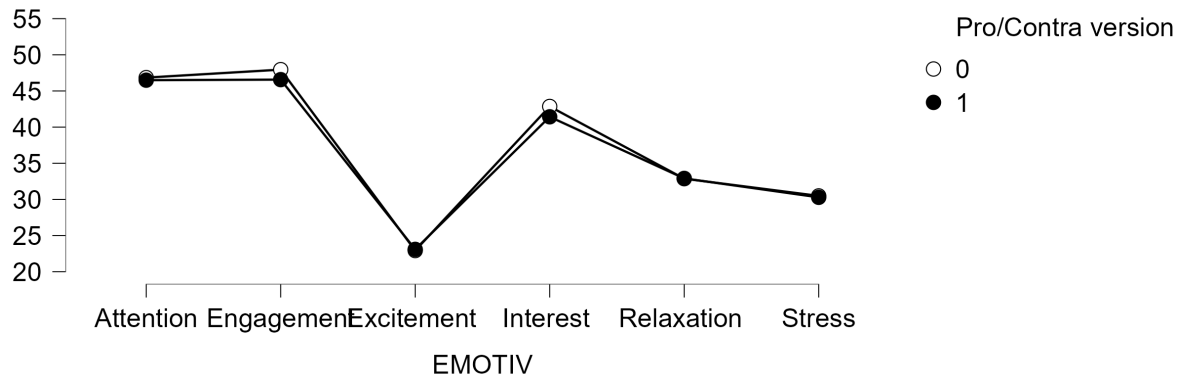


Figure 61 Descriptives plot/EMOTIV states x Version of the slides set (1-Pro version, 0-Contra version)

Main Effects

- SLIDE** – A significant main effect of the SLIDE factor was observed, $F(4, 312) = 4.63, p = 0.001, \eta^2 = 0.002$, indicating that EMOTIV responses (cognitive states) varied depending on the slide content that was presented to the participants (*Statement, Contradiction* etc.).
- EMOTIV metric** – The EMOTIV metric here refers to the six cognitive states measured by the Emotiv device. A strong main effect of the EMOTIV metric was recorded, $F(5, 390) = 77.59, p < 0.001, \eta^2 = 0.293$, reflecting significant differences in the mean values across the six EMOTIV dimensions (e.g. *attention* vs. *stress*).
- Pro/Contra Version (between-subjects)** – There was no significant main effect of whether the slides were congruent or incongruent with participants' attitudes, $F(1, 78) = 0.061, p = 0.805, \eta^2 < 0.001$. In other words, there were no differences in EMOTIV measures depending on whether participants were presented with the Pro or the Contra version of the slide set.

Interactions

- **SLIDE × Pro/Contra Version** – A significant interaction emerges between the SLIDE factor and the Pro/Contra version, $F(4, 312) = 3.39, p = 0.010, \eta^2 = 0.001$, suggesting that the pattern of EMOTIV measures across the five slides differed depending on whether the message was congruent or incongruent with the participants' attitudes.
- **SLIDE × EMOTIV** – A significant interaction was also observed between the SLIDE and EMOTIV factors, $F(20, 1560) = 2.30, p < 0.001, \eta^2 = 0.001$, indicating that specific EMOTIV responses varied depending on the type of slide.
- **EMOTIV × Pro/Contra Version** – This interaction was not significant, $F(5, 390) = 0.10, p = 0.992, \eta^2 \approx 0$.
- **SLIDE × EMOTIV × Pro/Contra Version** – No significant three-way interaction was found, $F(20, 1560) = 0.66, p = 0.872, \eta^2 < 0.001$.

Post hoc Tests and Contrasts

- **Simple Contrasts for SLIDE**

The first slide (*Statement*) was used as the reference:

- EMOTIV measures were significantly lower on:

- the *Contradiction* slide ($p = 0.026$)
- the *Consider* slide ($p = 0.011$)
- the *Action* slide ($p < 0.001$)

-No significant difference was observed on the *Rationalisation* slide ($p = 0.101$).

This result suggests that affective and cognitive responses decreased as participants progressed through the sequence of slides - that is, through the process of motivated reasoning - particularly by the time they reached the slide containing the call-to-action.

- **SLIDE × EMOTIV Contrasts**

Several contrasts were significant, particularly those involving the cognitive states of excitement, interest, and stress across different slides. The most notable results are as follows:

- Excitement and interest significantly declined across slides, especially between the initial slides (e.g. *Statement*) and the later ones (e.g. *Action*).
- Large differences (e.g. > 15 units) in stress and interest were observed particularly on slides 4 and 5 (*Consider* and *Action*), with $p < 0.001$ in nearly all such comparisons.

These results demonstrate that, as participants progressed through the slides, levels of engagement and excitement decreased, while stress or cognitive conflict increased.

Interpretation of Results

The findings indicate that emotional and cognitive engagement varied significantly throughout the different stages of political message exposure (slides), with a notable decline in engagement and a rise in stress as participants moved from the initial declarative statements to the slides requiring evaluation and action. It is important to note that although the three-way interaction was not significant, the SLIDE $\times$ Pro/Contra version interaction suggests that the congruence with participants' prior attitudes influenced the way the evolving message was processed. This is consistent with the politically motivated reasoning paradigm, according to which emotionally congruent messages are processed more easily than incongruent ones, that is, under the influence of affect, the "how do I feel about it" heuristic is automatically activated (Lodge & Taber, 2012), thereby reducing the cognitive effort required for message processing.

○ Effect of Slide and Slide Set Version on EEG Signal (Brainwaves)

In contrast to the previous analysis, which focused on six cognitive states, this analysis examines the effect of slide content and slide set version on EEG frequency bands, that is, on changes across five brainwave types (delta, theta, alpha, beta, and gamma). Since fluctuations in these brainwave activities reflect changes in the cognitive and affective states of participants, the results are crucial for interpreting participants' responses to persuasive messages. Given that the slides were designed in accordance with the stages of motivated political reasoning, this analysis yields significant insights into the neural bases of participants' responses within the persuasive sequence.

To investigate how neural responses (EEG amplitudes) varied across different phases of message processing, and whether these effects were modulated by the congruence between message content and participants' prior attitudes (*Pro/Contra* version), a repeated measures ANOVA was conducted with three factors: 5 slides (*Statement, Contradiction, Rationalisation, Consider, Action*) $\times$ 5 frequency bands (brainwaves) $\times$ 2 slide versions (Pro/Contra version: congruent vs. incongruent), based on average ERP amplitude values extracted for each slide at each electrode.

In this analysis, Mauchly's test indicated a violation of the sphericity assumption for within-subject factors and their interactions, and therefore Greenhouse-Geisser corrections were applied where appropriate. Uncorrected degrees of freedom are reported below, along with corrected *p*-values.

Table 8 Repeated measures ANOVA/Slide x EEG x Version of the slides set

Within Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p	η^2
SLIDE	454.594 ^a	4 ^a	113.648 ^a	12.489 ^a	< .001 ^a	0.006
SLIDE * Pro/Contra version	70.068 ^a	4 ^a	17.517 ^a	1.925 ^a	0.106 ^a	9.707×10^{-4}
Residuals	2839.261	312	9.100			
EEG	27685.528 ^a	4 ^a	6921.382 ^a	252.093 ^a	< .001 ^a	0.384
EEG * Pro/Contra version	11.103 ^a	4 ^a	2.776 ^a	0.101 ^a	0.982 ^a	1.538×10^{-4}
Residuals	8566.175	312	27.456			
SLIDE * EEG	260.846 ^a	16 ^a	16.303 ^a	8.160 ^a	< .001 ^a	0.004
SLIDE * EEG * Pro/Contra version	82.879 ^a	16 ^a	5.180 ^a	2.593 ^a	< .001 ^a	0.001
Residuals	2493.518	1248	1.998			

Note. Type III Sum of Squares

^a Mauchly's test of sphericity indicates that the assumption of sphericity is violated ($p < .05$).

Between Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p	η^2
Pro/Contra version	166.432	1	166.432	0.061	0.805	2.535×10^{-4}
Residuals	211769.407	78	2714.992			

Note. Type III Sum of Squares

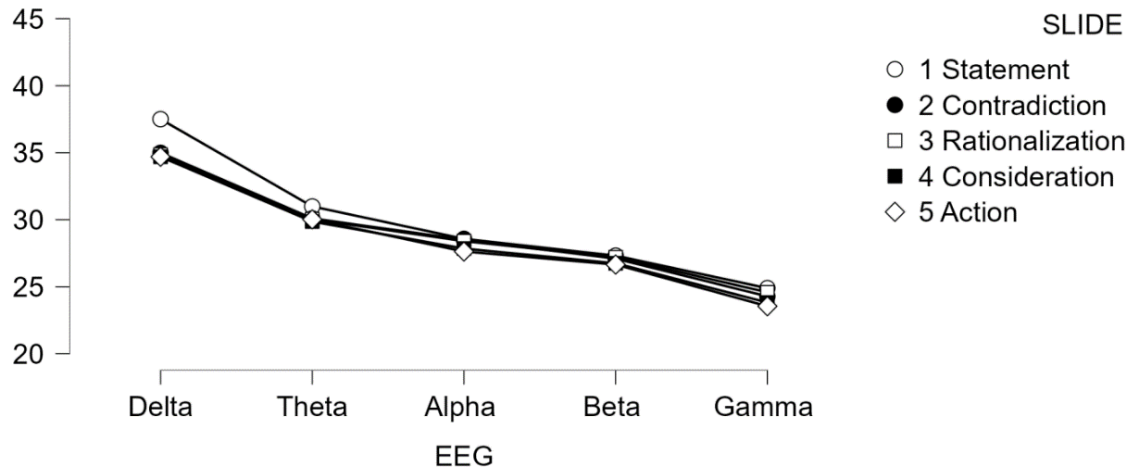


Figure 62 Descriptives plot/ Brain waves x Slide

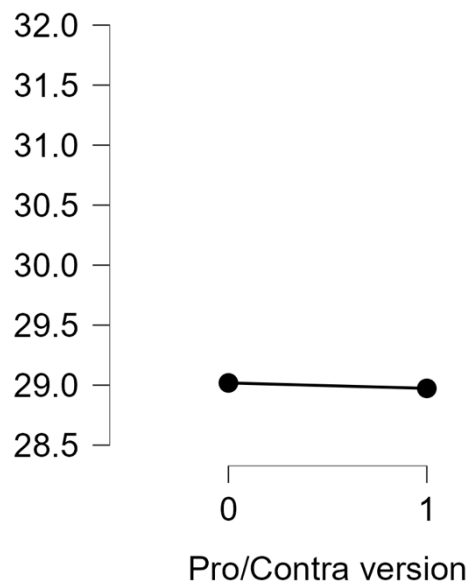


Figure 63 Descriptives plot/ Brain waves x version of the slides set (1-Pro version, 0-Contra version)

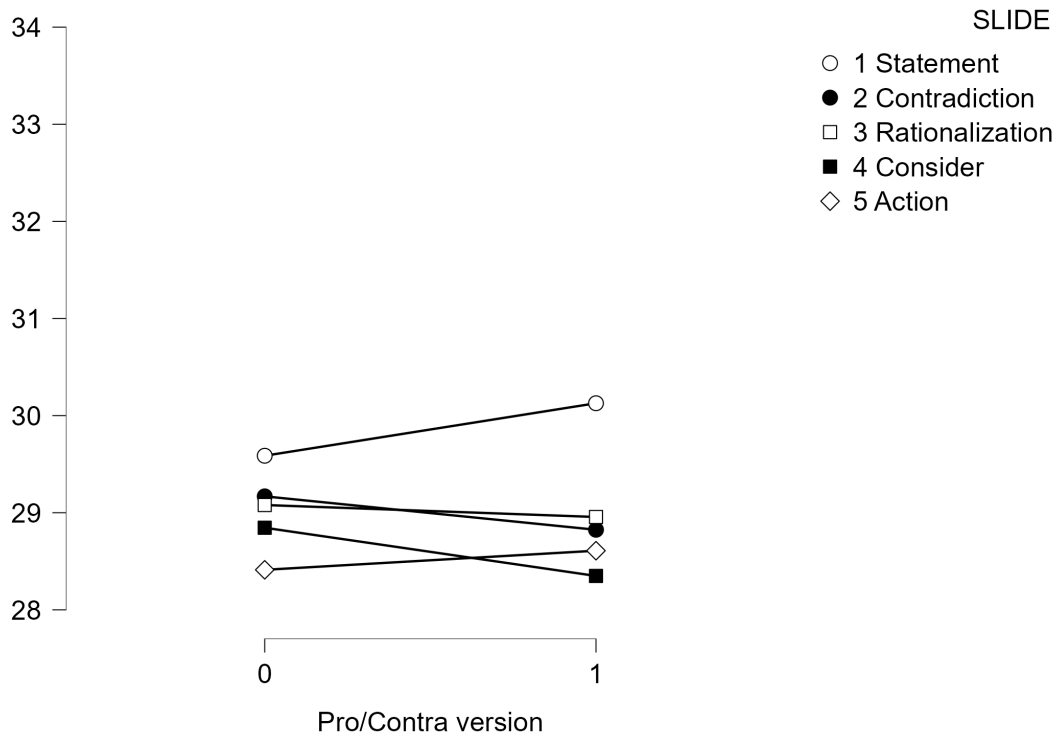


Figure 64 Descriptives plot/Slide x Version of the slides set (1-Pro version, 0-Contra version)

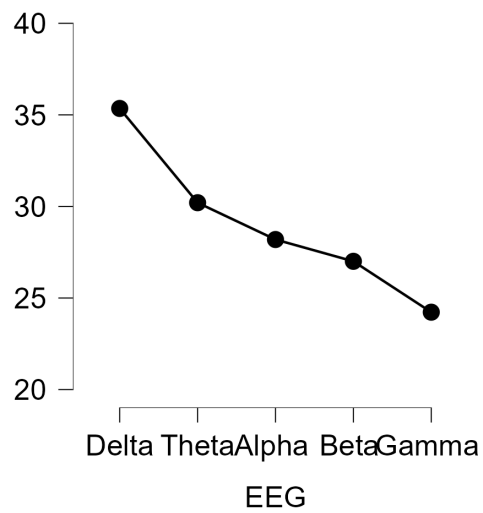


Figure 65 Descriptives plot/ Brain waves x Slides

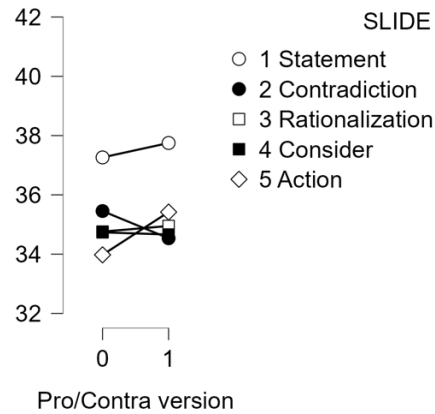


Figure 66 Descriptives plot/ Delta x Slide x Version of the slides set (1-Pro version, 0-Contra version)

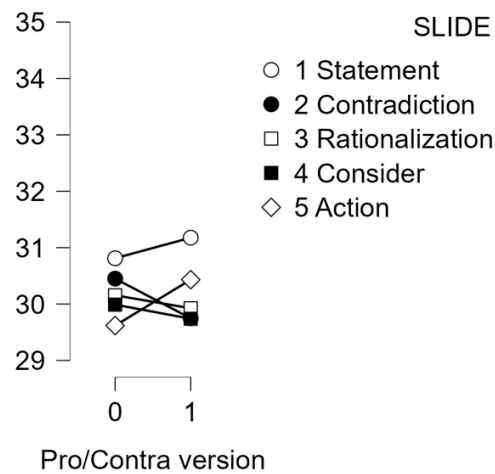


Figure 67 Descriptives plot/ Theta x Slide x Version of the slides set (1-Pro version, 0-Contra version)

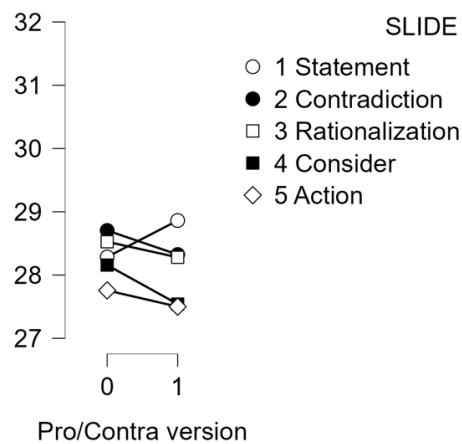


Figure 68 Descriptives plot/ Alpha x Slide x Version of the slides set (1-Pro version, 0-Contra version)

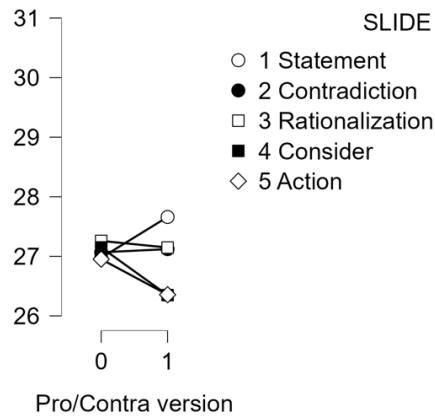


Figure 69 Descriptives plot/ Beta x Slide x Version of the slides set (1-Pro version, 0-Contra version)

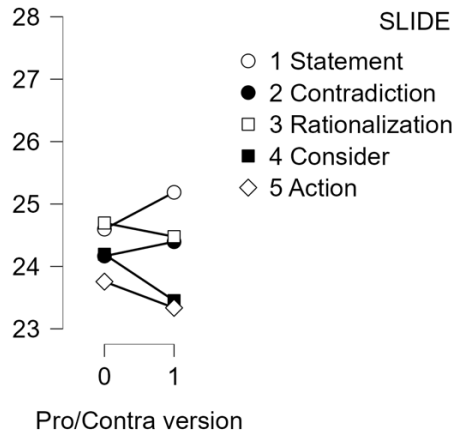


Figure 70 Descriptives plot/ Gamma x Slide x Version of the slides set (1-Pro version, 0-Contra version)

Main Effects

- **SLIDE** – A significant main effect of the SLIDE factor was observed – $F(4, 312) = 12.49, p < 0.001, \eta^2 = 0.006$, indicating that EEG amplitudes differed across the five message stages. Later slides (e.g., *Consider* and *Action*) elicited more negative amplitudes compared to the initial *Statement* slide, suggesting increased demands for cognitive or emotional processing over time.
- **EEG** – A strong main effect of frequency bands was found – $F(4, 312) = 252.09, p < 0.001, \eta^2 = 0.384$, reflecting the expected variability across EEG bands.
- **Pro/Contra Version (between-subjects)** – No significant main effect of message congruence was observed – $F(1, 78) = 0.003, p = 0.959, \eta^2 < 0.001$. This indicates that the

EEG signal was not significantly different depending on whether participants were exposed to the *Pro* or *Contra* version of the slide sets.

Interactions

- **SLIDE × Pro/Contra Version** – This interaction was not significant – $F(4, 312) = 1.93, p = 0.106, \eta^2 < 0.001$. Although numerical differences were present between Pro and Contra versions across slides, they were not statistically reliable across the entire sample.
- **EEG × Pro/Contra Version** – No significant interaction was found between electrode location and stimulus congruence – $F(4, 312) = 0.10, p = 0.982, \eta^2 < 0.001$.
- **SLIDE × EEG** – A significant interaction was observed – $F(16, 1248) = 8.16, p < 0.001, \eta^2 = 0.004$, indicating that differences between slides varied.
- **SLIDE × EEG × Pro/Contra Version** – The three-way interaction was significant – $F(16, 1248) = 2.59, p < 0.001, \eta^2 = 0.001$, suggesting that the combined effect of slide content and message congruence influenced EEG responses. Although the effect size was small, it points to subtle variations in neural processing depending on both message content and its alignment with prior beliefs.

Post Hoc Tests and Contrasts

SLIDE simple contrast

The first slide (*Statement*) was used as the reference. EEG measures showed decreasing values relative to:

- *Contradiction* ($p < 0.001$)
- *Rationalisation* ($p < 0.001$)
- *Consider* ($p < 0.001$)
- *Action* ($p < 0.001$)

These effects reflect increased neural engagement or conflict as participants processed content that progressed from neutral statements towards action demands.

• SLIDE × EEG Contrasts

Several contrasts were significant. For example, slides 4 (*Consider*) and 5 (*Action*) showed the strongest effects.

• SLIDE × Pro/Contra Version Contrasts

Although the overall SLIDE × Pro/Contra Version interaction was not significant, exploratory contrasts suggested that incongruent messages elicited somewhat more negative signals on later slides (especially on *Action*), but these differences were small and not individually significant ($p >$

0.250). This suggests that the interaction may be driven by subtle, distributed effects rather than pronounced shifts at specific transitions between slides.

Interpretation of Results

The EEG findings indicate that neural activity varied significantly across different stages of political message processing. As participants progressed from neutral statements to calls for action, EEG amplitudes suggested increased demands for cognitive processing or affective engagement. Although congruence with prior attitudes (Pro versus Contra) did not produce strong main effects, the significant three-way interaction suggests the presence of subtle neural differences when participants process content that contradicts their existing beliefs, particularly during the later stages of the message sequence. This aligns with the paradigm of motivated political reasoning, specifically the resistance to belief change, which posits that greater cognitive conflict and processing effort occur when individuals are confronted with information that challenges their pre-existing convictions.

○ Analysis of Changes in Cognitive States and Brainwaves between Slides 1 and 2

This analysis employed independent samples *t*-tests to examine changes across all six cognitive states (EMOTIV metrics) and all five frequency bands, i.e., brain waves, in the context of neural responses as participants transitioned from Slide 1 (*Statement*) to Slide 2 (*Contradiction*) in both the Pro and Contra slide versions. The purpose of this analysis is to investigate the neural bases of participants' responses as they shift from exposure to a given message to exposure to a message containing contradictory information. Given that this analysis includes the factor of Pro and Contra slide versions, it is important to note that what constitutes the *Statement* (Slide 1) in the Pro version, for the group of participants receiving it in the Contra version, effectively functions as the *Contradiction* slide, and vice versa.

Thus, this *t*-test analysis offers insight into how emotional and cognitive processing differs depending on whether the persuasive political message is congruent or incongruent with participants' political motivations — which is directly related to the theoretical and hypothetical framework of the study.

Table 9 T-test/EMOTIV states x Brain waves for slides 1 and 2

Independent Samples T-Test			
	t	df	p
Attention 2-1	-0.539	78	0.591
Engagement 2-1	-0.100	78	0.921
Excitement 2-1	1.452	78	0.151
Interest 2-1	2.519	78	0.014
Relaxation 2-1	0.599	78	0.551

Independent Samples T-Test			
	t	df	p
Stress 2-1	1.113	78	0.269
Delta 2-1	1.858	78	0.067
Theta 2-1	2.181	78	0.032
Alpha 2-1	2.306	78	0.024
Beta 2-1	1.971	78	0.052
Gamma 2-1	0.963	78	0.338

Note. Student's t-test.

Key Findings:

- *Interest* was significantly higher in the Pro version than in the Contra version ($t = 2.519, p = 0.014$), suggesting that congruence with participants' political motivations enhances motivational relevance.
- *Theta* wave activity ($t = 2.181, p = 0.032$) and *Alpha* wave activity ($t = 2.306, p = 0.024$) were also significantly higher under the Pro condition, while *Delta* ($p = 0.067$) and *Beta* ($p = 0.052$) showed trends towards significance. These frequency bands are typically associated with emotional engagement (theta, alpha) and attention/semantic processing (Beta).

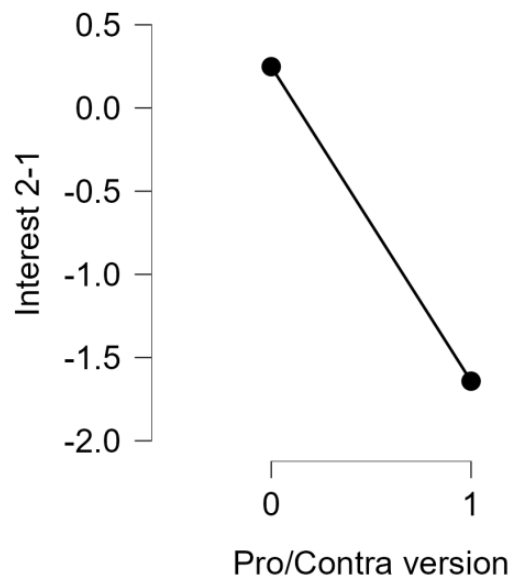


Figure 71 Descriptives plot/Interest on slides 1 and 2 in Pro and Contra version (1-Pro version, 0-Contra version)

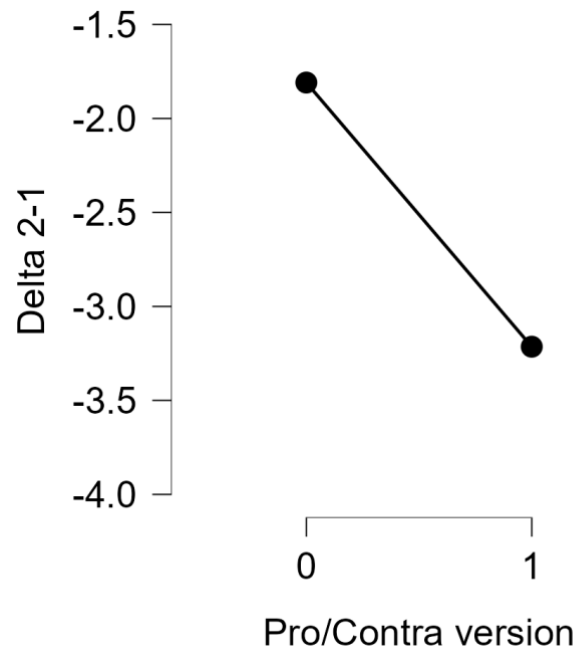


Figure 72 Descriptives plot/Delta during presentation of slides 1 and 2 in Pro and Contra version (1-Pro version, 0-Contra version)

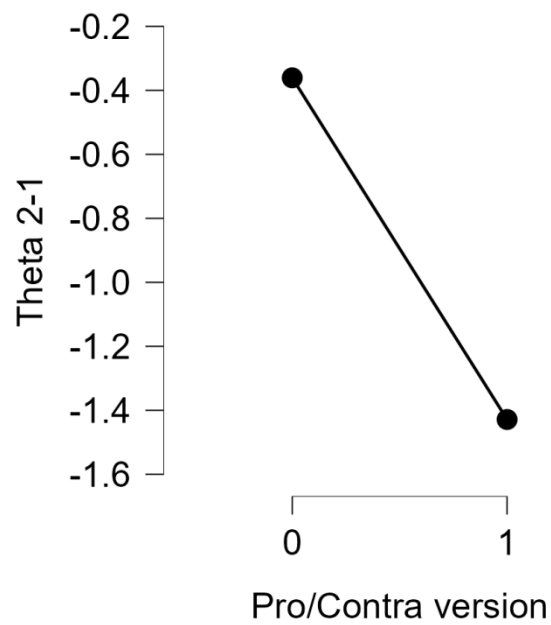


Figure 73 Descriptives plot/ Theta during the presentation of slides 1 and 2 in Pro and Contra version (1-Pro version, 0-Contra version)

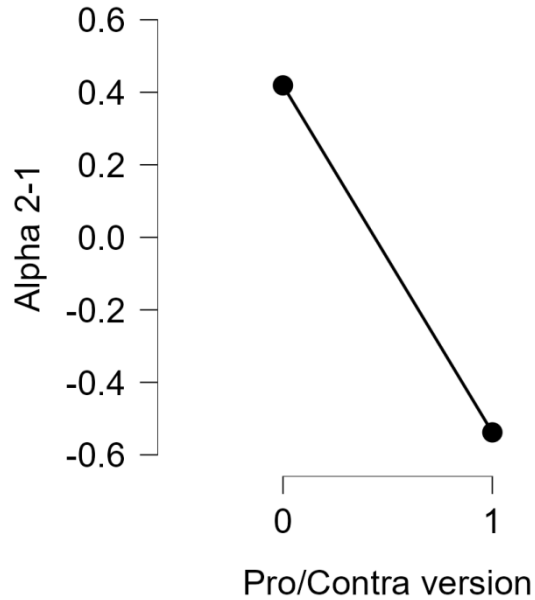


Figure 74 Descriptives plot/Alpha during presentation of slides 1 and 2 in Pro and Contra version (1-Pro version, 0-Contra version)

Alternative way of presenting these results:

Table 10 T-test for slides 1 and 2/Interest, Delta, Theta and Alpha

Independent Samples T-Test

	t	df	p
Interest 2-1	2.519	78	0.014
Delta 2-1	1.858	78	0.067
Theta 2-1	2.181	78	0.032
Alpha 2-1	2.306	78	0.024

Note. Student's t-test.

○ Analysis of Changes in Cognitive States and Brainwave in Relation to Slides 2 and 3

This analysis examines the neural bases of participants' reactions (cognitive states and frequency bands of brainwaves) as they transition, under the influence of new information that contradicts the message from the previous slide, into the rationalisation phase, where they are exposed to a message that facilitates the rationalisation of previously presented contradictory information. It is particularly important to emphasise that, given that the responses are analysed in relation to the Pro and Contra versions of the slide sets, participants exposed to the Contra version

on Slide 2 are actually presented with information with which they agree, whereas Slide 3, which is intended to facilitate rationalisation, for them represents a message that is inconsistent with their attitudes. The examination of the neural bases in relation to Slides 2 and 3 is therefore of particular interest, as it presents a situation in which what constitutes contradiction for one group of participants represents rationalisation for the other group, and vice versa. In other words, Slides 2 and 3, when observed through the lens of the political motivated reasoning paradigm, swap roles depending on whether the participant is presented with the Pro or Contra version of the slide set.

Table 11 T-test for slides 2 and 3/EMOTIV states and brain waves

Independent Samples T-Test			
	t	df	p
Attention 3-2	0.939	78	0.350
Engagement 3-2	1.564	78	0.122
Excitement 3-2	0.220	78	0.827
Interest 3-2	0.926	78	0.357
Relaxation 3-2	1.060	78	0.292
Stress 3-2	0.517	78	0.606
Delta 3-2	-1.551	78	0.125
Theta 3-2	-0.989	78	0.326
Alpha 3-2	-0.383	78	0.703
Beta 3-2	0.502	78	0.617
Gamma 3-2	1.094	78	0.277

Note. Student's t-test.

Key Findings:

None of the measured variables reached statistical significance when comparing the Pro and Contra versions at this later stage of the sequence (Slide 3 in relation to Slide 2). Although Engagement ($p = 0.122$) and delta activity ($p = 0.125$) exhibited some indications of trending towards significance, the overall pattern suggests a levelling of differences between the Pro and Contra conditions as the persuasion sequence, that is, the activation of motivated political reasoning, progresses.

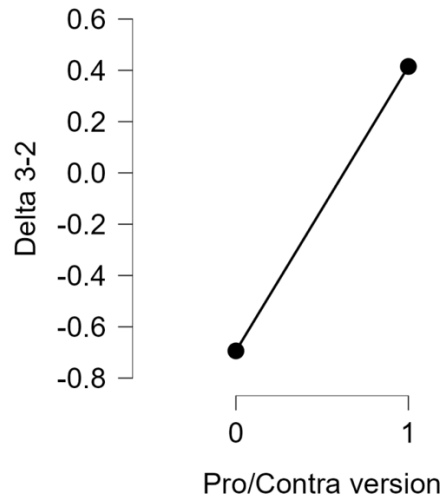


Figure 75 Descriptives plot/Delta during the presentation of slides 2 and 3 in Pro and Contra version (1-Pro version, 0-Contra version)

○ Analysis of Emotional-Cognitive States and Brainwave Activity in Relation to Slides 4 and 5

This analysis examines the difference in the neural bases of participants' reactions to the slide concerning the drawing of a conclusion and the slide on which participants make a decision regarding whether to engage in action. The analysis takes into account the reversed order of these two slides in order to investigate whether there is a difference in response when participants are first faced with a cognitive task involving a conclusion or with a task involving the expression of behavioural intent, that is, the decision to undertake a specific action.

Table 12 T-test/EMOTIV states and brain waves during the presentation of slides 5 and 3 and 5 and 4 (depending on the slides order)

Independent Samples T-Test			
	t	df	p
Attention 5-3	-1.244	38	0.221
Engagement 5-3	-0.800	38	0.429
Excitement 5-3	0.468	38	0.643
Interest 5-3	-0.586	38	0.561
Relaxation 5-3	-0.383	38	0.704
Stress 5-3	1.033	38	0.308
Delta 5-3	0.722	38	0.475
Theta 5-3	-1.737	38	0.091
Alpha 5-3	-1.453	38	0.155
Beta 5-3	0.592	38	0.558

Independent Samples T-Test

	t	df	p
Gamma 5-3	1.038	38	0.306
Attention 5-4	-1.326	38	0.193
Engagement 5-4	-1.211	38	0.233
Excitement 5-4	0.406	38	0.687
Interest 5-4	-0.582	38	0.564
Relaxation 5-4	-0.922	38	0.362
Stress 5-4	0.575	38	0.569
Delta 5-4	0.836	38	0.408
Theta 5-4	-1.431	38	0.161
Alpha 5-4	-1.567	38	0.125
Beta 5-4	-0.501	38	0.619
Gamma 5-4	0.559	38	0.579

Note. Student's t-test.

Key Findings:

None of the measured variables reached statistical significance, indicating that the order in which questions regarding conclusion (i.e., attitude) and behaviour are presented does not influence changes in the neural bases of participants' responses.

○ **Analysis of Slide Order Effects**

This analysis examined the impact of the presentation order of the *Consider* and *Action* slides on the neural bases of participants' responses—specifically, whether participants were first presented with a question regarding consistency evaluation or with a question regarding behavioural engagement. ANOVA results indicated no statistically significant effect of slide order. However, although not statistically significant, the effect of slide-set version on delta wave activation during the *Action* decision phase approached the threshold of significance and exhibited a moderate effect size. Therefore, only this aspect of the analysis is presented here.

Table 13 ANOVA analysis/Version of slides set x Question order x Delta during the presentation of slide 5

ANOVA - Action_Delta

Cases	Sum of Squares	df	Mean Square	F	p	η^2
Pro/Contra version	41.688	1	41.688	3.125	0.081	0.039
QuestionOrder	2.268	1	2.268	0.170	0.681	0.002
Pro/Contra version * QuestionOrder	3.125×10^{-5}	1	3.125×10^{-5}	2.343×10^{-6}	0.999	2.954×10^{-8}
Residuals	1013.822	76	13.340			

Note. Type III Sum of Squares

Descriptives

Descriptives - Action_Delta

Pro/Contra version	QuestionOrder	N	Mean	SD	SE	Coefficient of variation
0	0	20	34.144	3.428	0.766	0.100
	1	20	33.809	3.098	0.693	0.092
1	0	20	35.589	3.207	0.717	0.090
	1	20	35.251	4.661	1.042	0.132

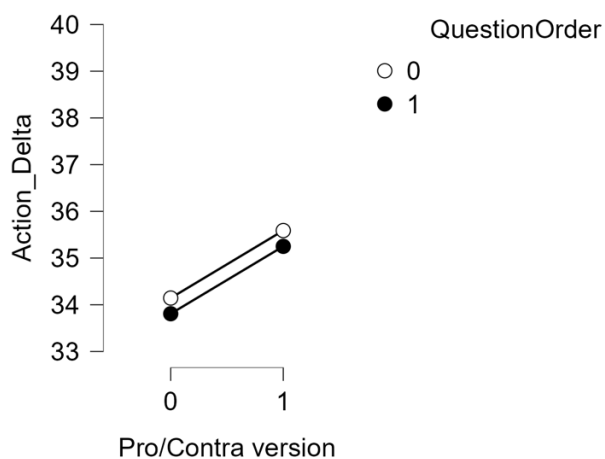


Figure 76 Descriptives plot/Delta on Action slide x Version of the slides set x Question order (1-Pro version, 0-Contra version)

○ Effect of Slide and Topic of Slide Set on EMOTIV Emotional-Cognitive States and Brainwaves

This analysis examined the role of the topic of the slide set (Lithium, Kosovo, East/West, Corruption) on the neural bases of participants' responses, depending on which slide they were viewing and in which version. Although the analysis of individual topics presented to participants

is not directly related to the subject or theoretical framework of this research, two repeated measures ANOVA analyses were conducted with the aim of generating data that, in this study, will be used solely to determine whether differences in topic affect neural responses. Accordingly, only a brief overview of the two ANOVA analyses will be provided, and the data will be discussed exclusively for the purpose of addressing this specific question. However, the generated data may be used in future studies exploring the neural bases of participants' responses within each individual topic.

A repeated measures ANOVA was conducted with three factors – Slide (*Statement, Contradiction, Rationalisation, Consider, and Action*), the six EMOTIV emotional-cognitive states, and the four topics. In addition, differences in the neural bases of responses were examined depending on whether participants were presented with the *Pro* or *Contra* version of the slides.

Table 14 Repeated measures ANOVA analysis/Slide x EMOTIV x Topic x Version of slides set

Within Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p	η^2
SLIDE	1279.715 ^a	4 ^a	319.929 ^a	4.726 ^a	0.001 ^a	0.002
SLIDE * TopicID	445.300 ^a	12 ^a	37.108 ^a	0.548 ^a	0.882 ^a	6.783×10^{-4}
SLIDE * Pro/Contra version	937.287 ^a	4 ^a	234.322 ^a	3.462 ^a	0.009 ^a	0.001
SLIDE * TopicID * Pro/Contra version	1602.723 ^a	12 ^a	133.560 ^a	1.973 ^a	0.027 ^a	0.002
Residuals	19495.135	288	67.691			
EMOTIV	192575.612 ^a	5 ^a	38515.122 ^a	83.702 ^a	< .001 ^a	0.293
EMOTIV * TopicID	2461.051 ^a	15 ^a	164.070 ^a	0.357 ^a	0.988 ^a	0.004
EMOTIV * Pro/Contra version	247.951 ^a	5 ^a	49.590 ^a	0.108 ^a	0.991 ^a	3.777×10^{-4}
EMOTIV * TopicID * Pro/Contra version	25479.858 ^a	15 ^a	1698.657 ^a	3.692 ^a	< .001 ^a	0.039
Residuals	165653.025	360	460.147			
SLIDE * EMOTIV	974.702 ^a	20 ^a	48.735 ^a	2.325 ^a	< .001 ^a	0.001
SLIDE * EMOTIV * TopicID	1245.448 ^a	60 ^a	20.757 ^a	0.990 ^a	0.498 ^a	0.002
SLIDE * EMOTIV * Pro/Contra version	277.950 ^a	20 ^a	13.897 ^a	0.663 ^a	0.865 ^a	4.234×10^{-4}
SLIDE * EMOTIV * TopicID * Pro/Contra version	1672.753 ^a	60 ^a	27.879 ^a	1.330 ^a	0.049 ^a	0.003
Residuals	30189.876	1440	20.965			

Between Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p	η^2
TopicID	1014.849	3	338.283	0.151	0.929	0.002
Pro/Contra version	166.432	1	166.432	0.074	0.786	2.535×10^{-4}
TopicID * Pro/Contra version	49075.948	3	16358.649	7.285	< .001	0.075
Residuals	161678.610	72	2245.536			

Note. Type III Sum of Squares

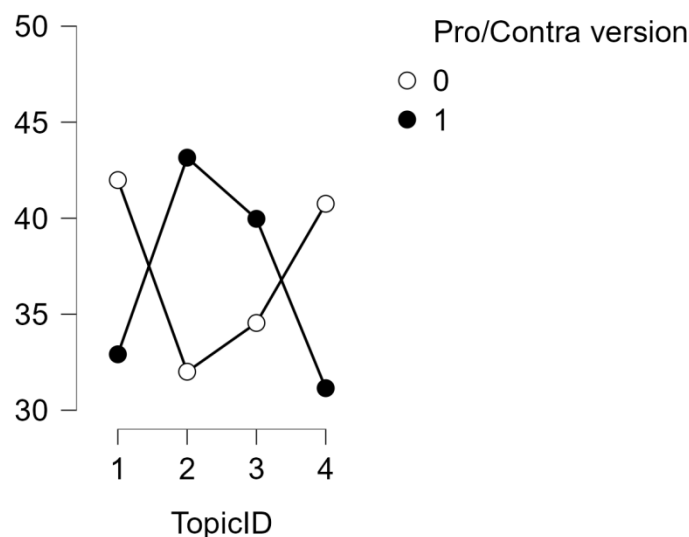


Figure 77 Descriptives plot/Topic x EMOTIV x Version of the slides set (1-Pro version, 0-Contra version)

Within-subject effects:

- **SLIDE** – A significant main effect of SLIDE was observed - $F(4, 288) = 4.726$, $p = .001$, $\eta^2 = .002$, indicating that EEG activity differed across the five successive slides.
- **SLIDE × Pro/Contra version** – This interaction was significant - $F(4, 288) = 3.462$, $p = .009$, $\eta^2 = .001$. The result indicates that the neural bases of responses to the slides was shaped by the congruence of the message with the participant's attitude (Pro/Contra).
- **SLIDE × TOPIC × Pro/Contra version** – This three-way interaction was significant - $F(12, 288) = 1.973$, $p = .027$, $\eta^2 = .002$, showing that the pattern of EEG signal changes across slides differed depending on the topic and the message version.
- **EMOTIV** – The main effect of EMOTIV measures was strong and highly significant - $F(5, 360) = 83.702$, $p < .001$, $\eta^2 = .293$, reflecting distinct patterns of emotional-cognitive states.
- **TOPIC × Pro/Contra version** – This effect interacted with TOPIC × Pro/Contra version in the way it was reflected in the EMOTIV × Pro/Contra version × TOPIC interaction -

$F(15, 360) = 3.692, p < .001, \eta^2 = .039$. This suggests that neural responses within specific emotional-cognitive states differ under the influence of the message topic and its congruence with participants' attitudes.

- **SLIDE $\times$ EMOTIV $\times$ TOPIC $\times$ Pro/Contra version** – This complex four-way interaction was also observed - $F(60, 1440) = 1.330, p = .049, \eta^2 = .003$, indicating nuanced and dynamic patterns of neural activity during slide presentation, simultaneously influenced by the topic and message framing.

Between-subject effects:

- The analysis of between-subject factors revealed no significant main effects of topic - (TopicID: $F(3, 72) = 0.151, p = .929$) nor Pro/Contra version ($F(1, 72) = 0.074, p = .786$). However, the interaction between these two variables was significant - $F(3, 72) = 7.285, p < .001, \eta^2 = .075$, suggesting that overall neural responses differed depending on the combination of message topic and its congruence with the participant's attitude.

In addition to this, an ANOVA analysis was conducted in which, unlike the previous model, the factor used instead of EMOTIV measures was the frequency band of brainwaves (delta, theta, alpha, beta, gamma).

Table 15 Repeated measures ANOVA analysis/Slide $\times$ EEG $\times$ Topic $\times$ Version of slides set

Within Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p	η^2
SLIDE	454.594 ^a	4 ^a	113.648 ^a	12.635 ^a	< .001 ^a	0.006
SLIDE * TopicID	143.725 ^a	12 ^a	11.977 ^a	1.332 ^a	0.200 ^a	0.002
SLIDE * Pro/Contra version	70.068 ^a	4 ^a	17.517 ^a	1.947 ^a	0.103 ^a	9.707×10^{-4}
SLIDE * TopicID * Pro/Contra version	104.966 ^a	12 ^a	8.747 ^a	0.972 ^a	0.475 ^a	0.001
Residuals	2590.570	288	8.995			
EEG	27685.528 ^a	4 ^a	6921.382 ^a	256.098 ^a	< .001 ^a	0.384
EEG * TopicID	267.125 ^a	12 ^a	22.260 ^a	0.824 ^a	0.626 ^a	0.004
EEG * Pro/Contra version	11.103 ^a	4 ^a	2.776 ^a	0.103 ^a	0.981 ^a	1.538×10^{-4}
EEG * TopicID * Pro/Contra version	515.471 ^a	12 ^a	42.956 ^a	1.589 ^a	0.094 ^a	0.007
Residuals	7783.579	288	27.026			
SLIDE * EEG	260.846 ^a	16 ^a	16.303 ^a	8.379 ^a	< .001 ^a	0.004
SLIDE * EEG * TopicID	149.659 ^a	48 ^a	3.118 ^a	1.603 ^a	0.006 ^a	0.002
SLIDE * EEG * Pro/Contra version	82.879 ^a	16 ^a	5.180 ^a	2.662 ^a	< .001 ^a	0.001

Within Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p	η^2
SLIDE * EEG * TopicID * Pro/Contra version	102.509 ^a	48 ^a	2.136 ^a	1.098 ^a	0.303 ^a	0.001
Residuals	2241.351	1152	1.946			

Between Subjects Effects

Cases	Sum of Squares	df	Mean Square	F	p	η^2
TopicID	1682.169	3	560.723	1.454	0.234	0.023
Pro/Contra version	1.024	1	1.024	0.003	0.959	1.418×10^{-5}
TopicID * Pro/Contra version	273.624	3	91.208	0.237	0.871	0.004
Residuals	27759.573	72	385.550			

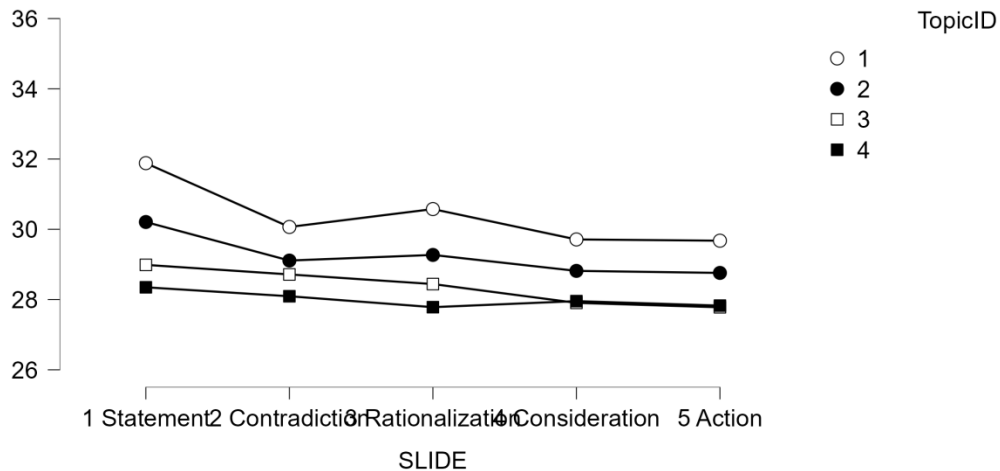


Figure 78 Descriptives plot/Slide x Topic X EEG

Main Effects:

Within-subject effects:

- **SLIDE** – A significant main effect of slide content on neural activity was observed - $F(4, 288) = 12.635$, $p < .001$, $\eta^2 = .006$, indicating substantial differences in EEG responses across the five phases of motivated reasoning.
- **SLIDE × TOPIC** – No significant effect of this interaction was detected - $F(12, 288) = 1.332$, $p = .200$.

- **SLIDE × Pro/Contra version** – This interaction was also not significant - $F(4, 288) = 1.947, p = .103$.
- **SLIDE × TOPIC × Pro/Contra version** – Likewise, this three-way interaction was not significant - $F(12, 288) = 0.972, p = .475$.
- **EEG frequency bands** – The main effect of EEG frequency band was highly significant - $F(4, 288) = 256.098, p < .001, \eta^2 = .384$, indicating notable differences in neural activity across brainwave bands.
- **EEG × TOPIC, EEG × Pro/Contra version, and EEG × TOPIC × Pro/Contra version** – None of these interactions were significant - with all p-values $> .09$.
- **SLIDE × EEG** – This interaction was significant - $F(16, 1152) = 8.379, p < .001, \eta^2 = .004$, suggesting that EEG activity patterns across frequency bands varied depending on the phase of motivated reasoning. This interaction was further modulated by a significant three-way interaction **SLIDE × EEG × TOPIC** - $F(48, 1152) = 1.603, p = .006$, indicating that these patterns were dependent on the topic being processed.
- **SLIDE × EEG × Pro/Contra version** – This interaction was also significant - $F(16, 1152) = 2.662, p < .001$, whereas the four-way interaction including the TOPIC factor was not significant, $F(48, 1152) = 1.098, p = .303$.

Between-subject effects:

- No significant main effects or interactions were observed for the factor **TOPIC** ($F(3, 72) = 1.454, p = .234$), **Pro/Contra version** ($F(1, 72) = 0.003, p = .959$), or their interaction ($F(3, 72) = 0.237, p = .871$).

Contrasts:

- Simple contrasts for the **SLIDE** factor revealed a significant decrease in neural responses from the first slide (Statement) to subsequent slides – all $p < .001$ – indicating progressive neural modulation during message exposure. Additionally, contrasts examining the **SLIDE × EEG** interaction showed highly significant differences across all levels, with t-values ranging from -8.672 to -24.422 and $p < .001$, confirming strong differentiation in neural activity across EEG frequency bands and message phases.

○ Presentation of Brain Mapping Data

As previously stated, this study also generated data related to brain mapping. These data illustrate how the activity of participants' brainwaves can be graphically represented during each phase of performing the cognitive task. Although the analysis of brain mapping is not within the scope of this research, selected data will be presented to highlight the possibilities for further research based on the data obtained within this experimental design. Given that a large number of brain mapping visualisations were generated during the experiment, only a representative example from a single participant will be presented here, with the note that a complete database of all participants is available. In the example of this participant, it is possible to observe the display of brain activity during the presentation of all four topics, two of which are in the Pro version and two in the Contra version, while two topics include the standard sequence of the slides *Consider* and *Action*, and two topics include the reversed sequence. Based on the brain

mapping visualisations, it is possible to observe how brainwave activity changed in relation to the topic presented, the specific slide, and its version. As previously stated, this information is presented in this study solely for the purpose of illustrating additional data generated, which may be used for further research in this field and for a deeper interpretation of certain results, particularly in the context of interpreting the localisation of brain activity.

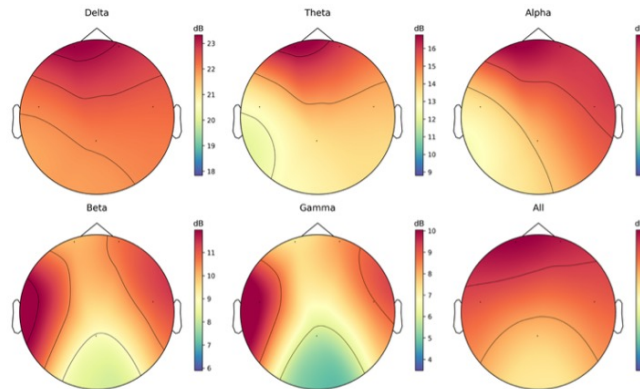


Figure 79 Averaged values for participant 1 (Lithium and East/West slides in Pro version, Kosovo and Corruption slides in Contra version; Lithium and Kosovo slides presented in the regular sequence; East/West and Corruption slides presented in the reversed sequence)

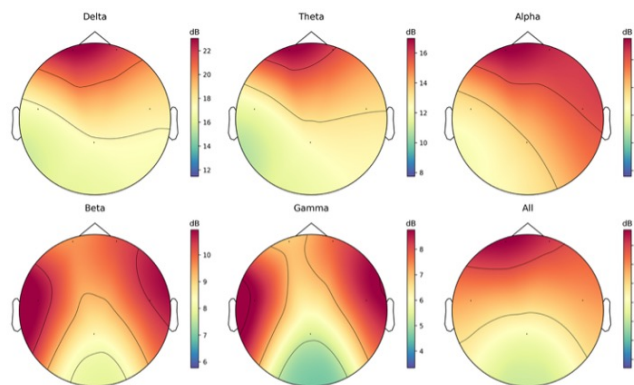
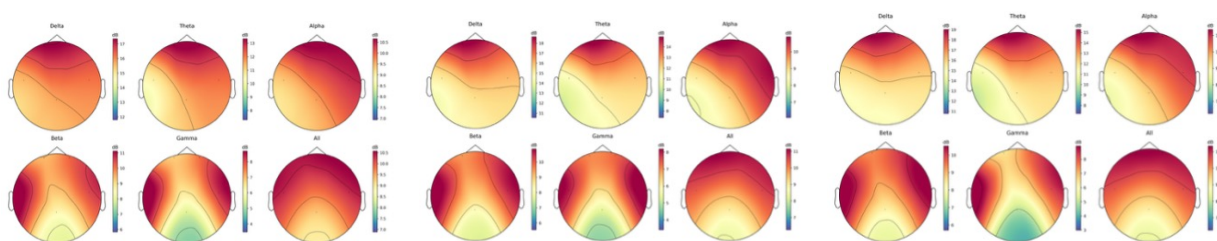


Figure 80 Averaged values for the slides set on the East/West topic



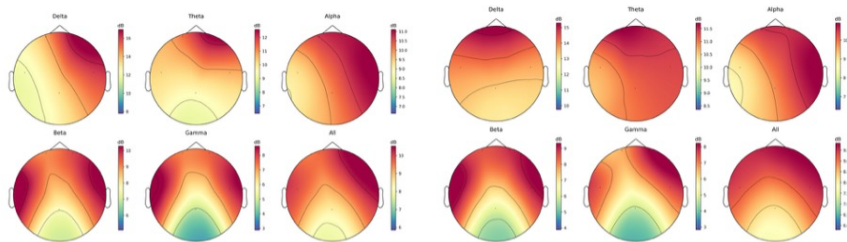


Figure 81 Brain wave activity by slide for the East/West topic (Contra version of the slide set; slide order: Statement, Contradiction, Rationalisation, Action, Consider)

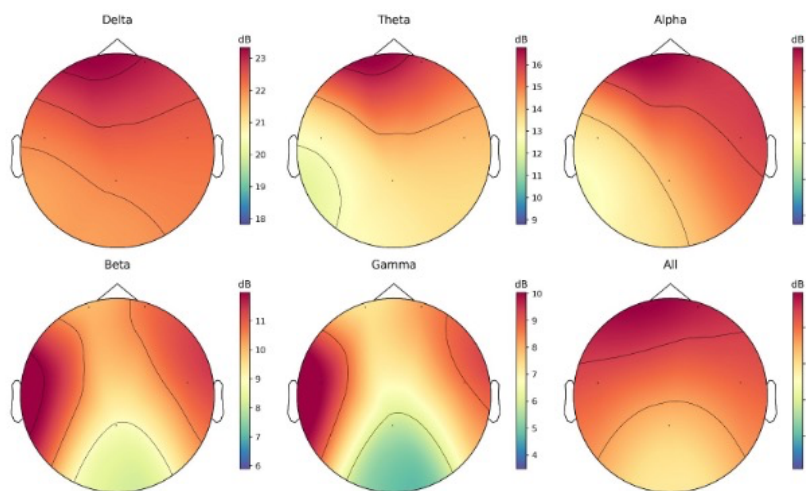


Figure 82 Averaged values for the slides on the Corruption topic

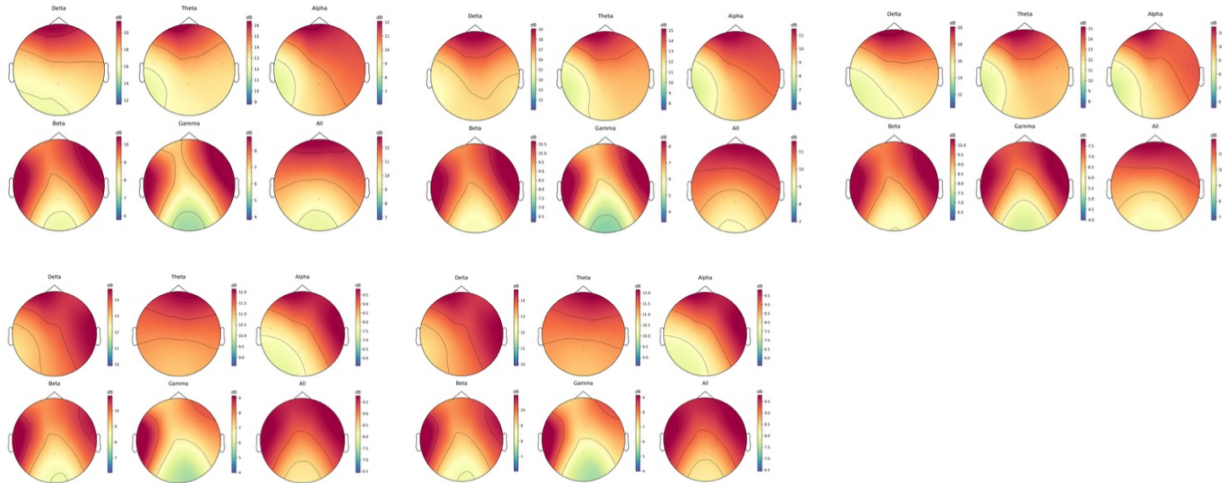


Figure 83 Brain wave activity by slide for the Corruption topic (Pro version of the slide set; slides order: Statement, Contradiction, Rationalisation, Action, Consider)

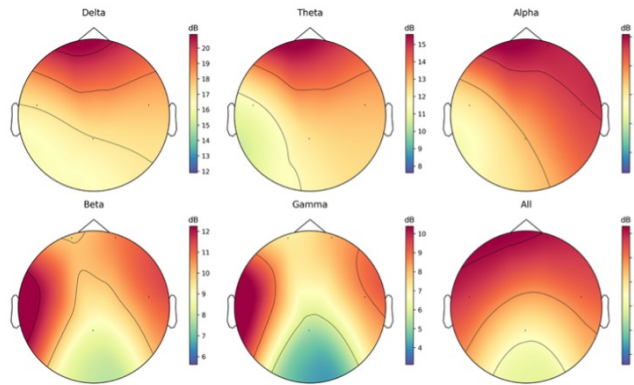


Figure 84 Averaged values for the slides on the Kosovo topic

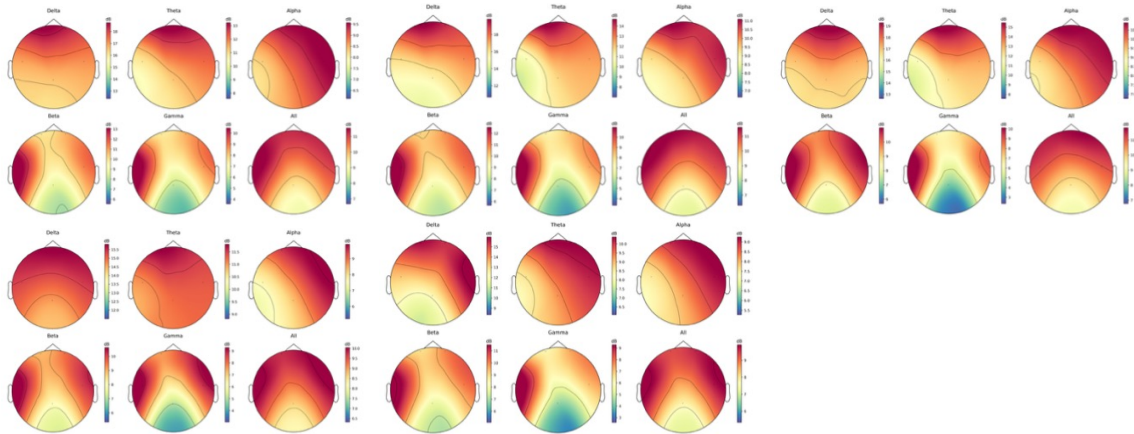


Figure 85 Brain wave activity by slide for the Kosovo topic (Contra version of the slides set; slide order: Statement, Contradiction, Rationalisation, Consider, Action)

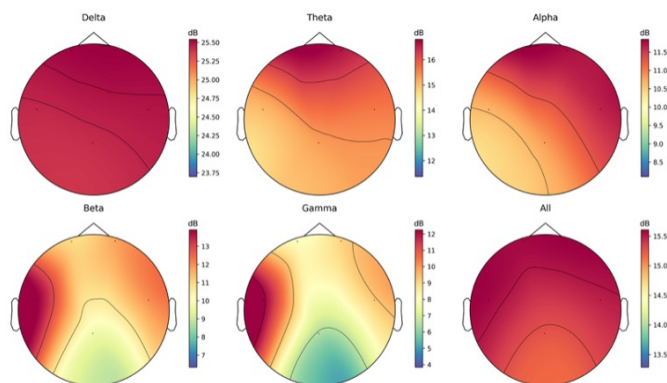


Figure 86 Averaged values for the slides on the Lithium topic

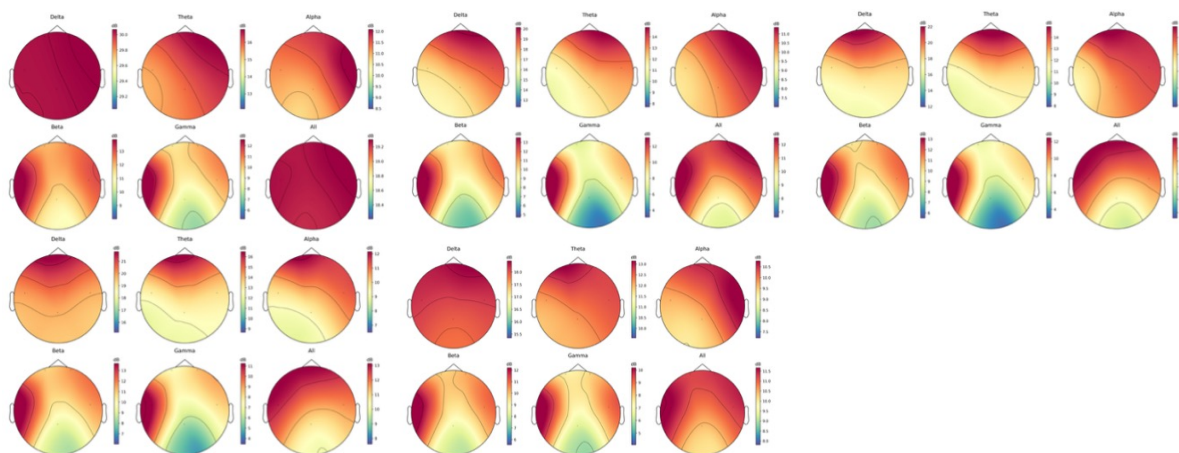


Figure 87 Brain wave activity by slide for the Lithium topic (Pro version of the slides set; slides order: Statement, Contradiction, Rationalisation, Consider, Action)

12. Discussion of Results

The findings of Westen's experiment, which point to the key role of emotions during the activation of the motivated political reasoning mechanism, have opened entirely new perspectives for the application of neuroscience in the study of political decision-making in general. However, the examination of the neural bases of political decision-making has also demonstrated how the application of neuroscience in the field of political communication can contribute to answering those questions about how people make political decisions which, until now, have remained at the level of speculation when attempting to address them using traditional methods of attitude and behaviour assessment. In this study, which was conducted following the model of Westen's experiment, the specific focus is on examining what kinds of answers insight into the neural background of participants' reactions to political messages—crafted and positioned to stimulate the activation of motivated political reasoning—can provide. Although a neuroscientific method (measuring brain electrical activity by EEG) was employed in the experiment itself, the theoretical framework of the research is situated within the field of political communication. Accordingly, it is important to emphasise that the results of the conducted research will be interpreted and discussed solely within the context of political communication in a broader sense, that is, political persuasion and political marketing in a narrower sense.

In addition to behavioural data obtained through pre-testing and interviews conducted with participants after the experiment, data were also generated by observing the dependent variables (all six Emotiv emotional-cognitive states and all five frequency bands, that is, brainwaves) in relation to each slide in each version (Pro/Contra, regular and reversed order of the Consider and Action slides) for each participant and across all four topics. Given the complexity and volume of the obtained data, analyses and data deemed most adequate in the context of the research's hypothetical framework have been selected. This study presents analyses of general trends, while the generated data allow for each of these trends to be further analysed in detail at the level of individual participants, topics, slide versions, or individual slides. All obtained data will be made available for future research in this field, and all additional data related to the analyses presented in this study are included in the appendix. During the course of the analysis, the type of additional data will be clearly indicated, and precise guidelines will be provided on how these data may offer further clarification and serve as a basis for future analyses.

In this study, the focus was placed on identifying the role of motivated reasoning, that is, the role of emotions in the persuasive process. The role of emotions is examined indirectly through the neural bases of motivated political reasoning, starting from the results of Westen's neuroscientific experiment, which demonstrated that emotions play a key role in this cognitive process, and through the analysis of the dominant role of emotions and affect within the paradigm of motivated political reasoning (Lodge & Taber 2012; 2013). The neural bases of motivated political reasoning, that is, the role of emotions in political decision-making and judgement formation, is examined in this research with the aim of testing Elul's thesis that successful propaganda is aimed primarily at action, that is, behavioural change, and not primarily at the change of attitudes and beliefs. Given such a persuasive sequence as proposed in Elul's thesis, the analysis of this thesis essentially serves as a link between the analysis of the role of emotions and motivated political reasoning in the context of the mobilisation function of political persuasion. It

is important to emphasise that this link also relies on Elul's position that the individual is, under the influence of persuasive messages, *irrationally* led into action. Therefore, starting from the described role of emotions, that is, affect (especially in the context of the unconscious), in motivated political reasoning, this study examines the neural bases of that form of reasoning with the aim not only of testing Elul's thesis, but also of attempting to answer the question of what lies behind the element that Elul designates merely as "irrational", and which precedes the induction of the individual into action. A critical review of the literature and an analysis of the theories, concepts, and notions relevant to this research served the purpose of clarifying the complex relationship between the paradigm of motivated political reasoning, Elul's thesis, and the relationship between cognition and emotion, as well as cognitive and affective neuroscience. This review was placed within the field of political communication in order to demonstrate why it is justified to seek an answer to the validity of Elul's thesis through the investigation of the neural bases of motivated political reasoning, that is, to examine the mobilisation function of political persuasion.

In accordance with this, the fundamental hypothesis in this study assumes that the persuasive effects of political messages on attitudes and behaviour are more conditioned by the emotional relation to one's own political motives than by the data and argumentation contained in those messages. In this research, the neural bases of the emotional relation to political motives is observed through the neural reactions of participants during the activation of motivated political reasoning. Given that the use of EEG does not allow for the isolation of emotional processing alone, and especially not of specific emotions, the measurement of electrical brain activity during the processing of information under the influence of motivated political reasoning is regarded as the observation of the neural bases of the influence of emotions on political decision-making and judgement (given the previously clarified dominant role of emotions in this process).

Also, the earlier emphasis on the relationship between cognition and emotion supports the notion that it is nearly impossible to examine the role of emotion independently of cognition, and vice versa. Motivated political reasoning, as a mechanism of cognitive processing in which emotions play a dominant role, provides a relevant framework for examining this "partnership" between cognition and emotion. In Westen's experiment, the application of fMRI enabled insight into when brain regions associated with emotion were activated, and this insight led to the conclusion regarding the dominant role of emotions during the activation of this mechanism. However, although EEG does not allow access to brain activity beneath the surface of the cerebral cortex, EEG was used in this study due to its higher temporal resolution, given that the focus was on determining the brain's electrical activity at the exact moment of presenting specific political messages, which were constructed slide by slide to follow the sequence, i.e., the elements of motivated political reasoning.

- **Presentation duration**

One of the indicators that the content and the method of presenting the slides indeed triggered the mechanism of motivated reasoning in participants was the measurement of the time they needed to move to the next slide, i.e. to process the message on the slide or to answer the question on those slides that required it (*Consider* and *Action* slides). The key data referred to the difference in the time needed to process slides from the *Pro* version versus the *Contra* version. It

is important to note that the slides were shown in such a way that participants were not informed they would receive different versions of slides on different topics. In the experiments conducted by Taber and Lodge (Taber & Lodge, 2006), which examined motivated political reasoning, reading time was used as an indicator of *disconfirmation bias* (Taber & Lodge, 2006: 761), which occurs because participants attempt to generate counterarguments against content that contradicts their views, as opposed to *confirmation bias*, where they uncritically accept arguments that support their views and beliefs. In the aforementioned experiment, the time spent reading content was used as an indicator of the depth of information processing, and participants spent more time on content that opposed their views because they analysed more carefully how they might refute it, which is one of the indicators of motivated reasoning. Thus, spending more time reading content with which participants disagree, compared to content that aligns with their views, can be regarded as an indicator of the cognitive effort invested in processing incongruent information or messages.

In this study, on the topics of *Lithium* and *Corruption*, participants spent more time on the slides from the *Contra* version, whereas on the topics of *Kosovo* and *East/West*, they spent more time on the slides from the *Pro* version. However, this does not mean that motivated political reasoning was not activated on those two topics, but rather that the nature of the polarisation is such that a message contrary to the participant's view does not require greater cognitive effort to process. One of the possible reasons may be that in the case of the topics *Lithium* and *Corruption*, the issue relates to current events, whereas in the case of *Kosovo* and *East/West*, it concerns more long-standing political orientations of the participants. Precisely because these two latter topics are not about specific current events but rather involve enduring attitudes, this opens the possibility for greater proximity to the *affective tipping point*. For example, in the case of attitudes toward foreign policy orientation toward the West, fatigue from waiting for EU membership or dissatisfaction with the EU's treatment of developments in Serbia. This does not mean the participant is changing their stance or that it will be changed, but it may mean they are more open to counterarguments in situations where the *affective tipping point* has already been reached. In the section of the discussion that concerns the analysis of data on the neural bases of participant reactions, it will be shown that neural activity also reflects that different topics trigger the mechanism of motivated reasoning in participants in different ways. In the following section, it will be shown that precisely in these two topics—those with differing presentation durations—this difference also manifested in the analysis of neural responses. This data, among other things, also indicates that in analysing the effects of political marketing, it is necessary to take into account not only the general model of the functioning of the motivated reasoning mechanism, but also the specific matrix of emotional-cognitive states that is activated in relation to a particular topic, i.e., motive.

In support of the claim that this concerns a different nature of polarisation, rather than the absence of motivated political reasoning, is the fact that for those two topics, participants spent more time on the *Pro* version and on Slide 2, which presents a contradiction in relation to the first slide. Therefore, if reading time were to be taken as an unconditional indicator of the activation of motivated reasoning, then for those two topics the reading time on the second slide (*Contradiction*), which contains a message opposing the one from the first slide (i.e. in the *Pro* version – their own attitude), would also have increased. However, for these two topics, the reading time was also longer on the second slide in the *Pro* version. This finding provides guidelines for more detailed research in this field and supplements the conclusions drawn by Lodge

and Taber in their investigation of the conditions under which reading time can serve as an indicator of motivated reasoning, and in the context of what kind of polarisation in relation to the topic. The fact that participants spent more time reading all slides for those two topics in the *Pro* version, and that they spent more time reading all slides for the other two topics in the *Contra* version, clearly points to a consistent pattern whereby reading time is indeed an indicator in motivated political reasoning, but cannot be taken as an unconditional indicator of the presence or absence of motivated reasoning, or of confirmation bias. As already noted, if that were the case, there would be a change in the pace of reading the text on the slide that contradicts their stance. Therefore, reading time should rather be interpreted in the context of researching the type of polarisation that triggers motivated reasoning, that is, the type of emotional-cognitive patterns activated in a specific form of polarisation.

The fact that the slide conveying a stance opposing that of the participant follows the trend of reading time for all other slides within one topic can be taken as an indicator that motivated political reasoning is activated upon encountering the first message the individual is faced with, and remains active until the phase of decision-making or drawing a conclusion (in the case of this study, the *Consider* and *Action* slides). In other words, after encountering the first message, the participant remains under the influence of the same emotional-cognitive pattern, even if part of that process includes a message that aligns with their view. Put differently, the participant remains in a state of alert toward every subsequent message or cognitive task, after their motive has been *attacked*. This interpretation aligns with the way in which the paradigm of motivated political reasoning interprets the transition of a concept from long-term to working memory – the way in which the concept is *affectively charged* determines its *path* from unconscious message processing to conscious conclusion-making or decision-making. In this case, the data indicate that the participant, upon responding to the first stimulus, has an affect activated which then continues to govern the way in which they process information or messages. The fact that the *Contradiction* slide is read longer even for the topics of *Lithium* and *Corruption* supports the notion that the participant is under the dominant influence of the strength of affect activated by the prior “attack” on their motive, regardless of the content of the message. In the case of the topics *Kosovo* and *East/West*, the way in which the participant responds to the first message (taking into account the factor of reading time) also remains consistent with that message-processing approach until the moment they have made a decision about action.

As already noted, it is particularly significant that the analysis of the neural bases of participant reactions also reflected this divergence for the topics *Kosovo* and *East/West*. Namely, the ANOVA analysis examining the factors of EEG signal, topic, and whether participants were exposed to the *Pro* or *Contra* version clearly reflected a difference in the neural bases of participants’ reactions to these two topics in relation to the other two (Figure 88). Moreover, this analysis showed how the two slide versions are clearly presented in opposition. This is yet another clear indicator of the applicability and contribution of neuroscience to research in the field of political persuasion, and the effects of political marketing, as well as of how well-suited the model of motivated political reasoning is to this type of research. Thus, these divergences were not noted in participants’ self-reports either before, during, or after the experiment (although there were some other divergences during the experiment, which will be addressed below), but the neural background revealed their different reactions to the other two topics at a level they were either not aware of or unwilling to report, with reading time also serving as an indicator of this.

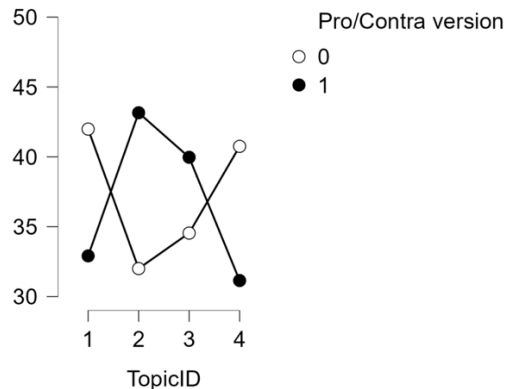


Figure 88 Difference in the participants' neural activity across four different topics (Lithium, Kosovo, East/West, Corruption; 1-Pro version, 0-Contra version)

It is also important to highlight the moment of return to the rhythm of shorter reading upon encountering the first slide of the following topic, in which that rhythm changes. Therefore, the question arises – if the longer reading of the *Contradiction* slide (or shorter, in the case of the topics *Kosovo* and *East/West*) indicates that the persuasive effects of political messages on people's attitudes and behaviour are more conditioned by the emotional relation to one's own political motives (reaction to the first slide) than by the content of the message (longer reading of the *Contradiction* slide), how then can it be explained that the rhythm of shorter reading returns on the next topic, which again remains on the *Contradiction* slide within that topic? In other words – how does the content of the *Contradiction* slide not affect the change in reading duration, while the content of the *Statement* slide of the next topic does? A possible answer to this question may lie in the fact that right before the beginning of the next set of slides, i.e. the next topic, the participant is faced with the decision of whether to consider to what extent the source of the message from the first slide is inconsistent with the new facts (attitude influence) and whether to engage in a certain action (behavioural influence).

In other words, the flow of motivated reasoning ends with regard to one topic, that is, the participant reaches the fulfilment of a goal – a *partisan goal* (Lodge & Taber, 2013), i.e. a *directional goal* (Kunda, 1990), or an *accuracy goal*. After that, the participant proceeds to the next topic, which activates another motive, that is, another emotional-cognitive pattern under the influence of that motive. Westen points out that the brain reacts very quickly by activating neural circuits responsible for the regulation of emotional states, and estimates that in his experiment, the participants had, in his view, managed to eliminate the conflict caused by exposure to messages opposing their views even before reaching the third slide (Westen, 2007). If we rely solely on this data about the clearly displayed pattern of slide reading duration, it seems that the conflict is detected and remains active until the participant assesses that a decision or conclusion has been made.

If that conclusion refers to engaging in an action, then this aligns with Ellul's thesis that the broadcasting of the message directly influences behavioural change. His observation that the individual enters into action and remains in it *irrationally* could, in accordance with this data, be

interpreted in the sense that the individual activates the mechanism of motivated reasoning upon encountering a political message – and remains under the influence of that mechanism (i.e. of the emotions that predominantly govern that mechanism) until engaging in action. Thus, engagement in action occurs under the influence of the mechanism of motivated reasoning, which itself occurs under the influence of the broadcast message, and before the action itself, i.e. the behavioural change. Such interpretation is consistent with the second specific hypothesis of this study, which relates to the notion that the activation of motivated political reasoning precedes the phases of behavioural and attitude change in the propaganda sequence proposed by Ellul in his thesis. In the terminology of the motivated political reasoning paradigm, the action referred to by Ellul can, in fact, be interpreted as a *partisan goal* or a *directional goal*. However, the question arises whether the goal must exclusively be action, i.e. behavioural change, or whether it can also be the formation of a conclusion or an attitudinal decision, which does not necessarily involve taking action as a consequence of the message broadcast. According to Ellul’s thesis, even if that were the case, it would not be considered relevant, since for him only the undertaking of a specific action is the indicator of successful political propaganda, i.e. persuasion. However, if observed from the perspective of motivated political reasoning, then even the influence on attitude can, in a “two-step” process, be considered an indicator of successful persuasion, because the reinforcement of attitude under the influence of motivated political reasoning becomes the basis for the future activation of that cognitive mechanism in circumstances in which the content of the persuasive message concerning the topic to which that attitude refers would imply the undertaking of an action (Figure 89).

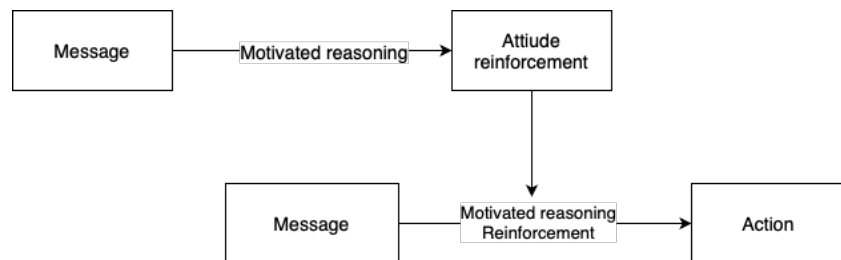


Figure 89 Influence on attitude in the context of influence of motivated reasoning on action

○ Behavioural data

As a second indicator of motivated reasoning, data from the questionnaire were used, in which participants had the task, on the *Consider* slide, to rate on a scale from 1 to 4 the extent to which the message/source from the first slide was inconsistent in relation with the new information presented on the second slide (*Contradiction*). It should be taken into account here that, in the case of topics where participants received the *Contra* version of the slides, the new information from the second slide is actually in line with their position, while the information from the first slide is contrary to their position. On the displayed scale, 1 indicates complete inconsistency, and 4 complete consistency. In accordance with motivated reasoning, it was expected that participants who received the *Pro* version of the slides would respond with ratings of 3 or 4, and participants

who received the *Contra* version with 1 or 2 – in other words, that participants would be more likely to notice inconsistency where they disagreed with the position of the source whose (in)consistency they were assessing. In three out of four topics, the result clearly indicated the presence of motivated reasoning, whereas in the topic *East/West*, participant responses were reversed – participants who received the *Contra* version of the slides rated the message on the first slide as more consistent than those who received the *Pro* version. Thus, in the topic of Serbia's foreign policy orientation toward the East or West, in the self-report data, a conditional indicator of *accuracy goals* (Lodge & Taber 2012; 2013; Kunda 1990) was recorded. It is significant to note that no other measure in the questionnaire showed any deviation on this topic from indicating the presence of motivated reasoning – neither in the pre-test self-report, nor in the post-test interview.

It is interesting to compare the participants' responses from the *Consider* slide with their responses from the *Action* slide, where they made a decision about whether they would engage in a certain action related to the topic, i.e., expressed a behavioural intention. We start from the assumption that readiness for action implies that, after being exposed to the stimulus, an evaluation follows from which action readiness, affect, and arousal simultaneously arise (Frijda, 2014), and that this is a dynamic process in which it is nearly impossible to determine the sequence of these elements, as they all mutually influence one another. Although the question on the *Consider* slide cannot be taken directly as an assessment in the context of action readiness, it is important to understand the relationship between participants' responses regarding (in)consistency and their responses concerning behavioural intention. However, in the case of the *East/West* topic, based on the results of their responses, we see a clear link between their evaluation and readiness for action, which is not the case with the *Corruption* topic. Namely, in both topics, participants were more willing to engage in an action that was contrary to their expressed attitudes. Thus, the previously mentioned deviation from the expected responses indicating activated motivated reasoning on the *Consider* slide in the *East/West* topic is also noticeable in their responses about whether they would engage in a certain action, while this is not the case in the *Corruption* topic. In other words, the responses on the *Action* slide for this topic indicate that they were more willing to take action contrary to their position. However, even in the *Corruption* topic, the ratio of *Pro* and *Contra* scaling in response to the question on the *Consider* slide was comparable.

Such responses regarding engagement in action are not expected for activated motivated reasoning, as they show that participants were more willing to take action related to the opposing position, or to avoid taking action aligned with their own. Nevertheless, even in this case, such deviations were not observed in their responses either before or after the experiment. It is particularly interesting to observe these behavioural results in the context of the previously presented neural bases of their reactions by topic, from which it is evident in the *East/West* topic that the neural background reflects a deviation that is also present in the slide reading durations, as well as in these behavioural data. However, in the *Kosovo* topic, no deviation is recorded in participants' responses either before, during, or after the experiment. At the same time, the deviation in behavioural data on the *Corruption* topic was not detected in the neural bases of responses to that topic. It is precisely such data cross-sections that best illustrate the unique contribution of neuroscience research in this field, that is, the way in which such research can provide us with answers that traditional testing techniques cannot reach.

Therefore, the fact that the results of behavioural measures before and after the experiment indicate a stable presence of motivated reasoning serves as an indicator that the deviations in responses concerning these two topics during the experiment itself do not mean that motivated reasoning was not activated – the majority of participants maintained their positions even in their responses during the interview conducted after the experimental testing. However, the reasons for these observed deviations may vary and may serve as indicators of an approach to an *affective tipping point* on these topics. For instance, in the case of the *East/West* topic, the reason why opposing information had an impact on the participants may be the war in Ukraine or dissatisfaction with the prolonged wait for membership in the European Union. In the case of the *Corruption* topic, participants justified their contrary decision by stating, for example, that while some believe the government is indeed a source of corruption, they simply do not support protests as a form of opposition. A detailed analysis of these reasons would require a separate study, but in the context of this research, it is important to note that if all other parameters and behavioural data continue to indicate the presence of motivated reasoning, such results point to several important aspects:

- (a) Motivated reasoning can be present even when the participant expresses a willingness at a certain stage to accept that the position they support is inconsistent.
- (b) The fact that the participant continues to justify their position as consistent during the interview after the experiment may mean that they are not aware that they gave a contradictory response during the experiment and/or that they do not perceive it as inconsistency. It can be said that, in this case, we are dealing with a kind of *double* motivated reasoning – the participant rationalises not only the inconsistency of the position they support, but also their own stance toward it in circumstances where they, at a certain stage, *acknowledge* recognising that inconsistency.
- (c) Participants are less inclined to question their positions in oral statements and face-to-face discussions (interviews), or in stages they perceive as essential commitment (pre-testing).
- (d) The fact that such deviations were observed only on two topics supports the notion that, despite the existence of clear polarisation across all topics, the nature of that polarisation differs. In the case of topics where there were deviations in behavioural data during the experiment itself, we cannot say that polarisation was less pronounced, nor do data from pre-testing and post-testing suggest that participants held less intense attitudes on those topics, but we can conclude that there is a possibility that participants in those topics show a greater potential for approaching the *affective tipping point*.
- (e) The fact that an individual explicitly adopts a particular position on a given topic does not necessarily mean that they will also undertake an action consistent with that position, which supports Elil's thesis on the separation of action and thought. The indicator of this division cannot be detected through self-report methods, but primarily through the application of neuroscientific methods.

The specific reasons for these deviations can also be interpreted through the responses, that is, the reasoning provided by participants during the interviews conducted after the experimental testing. After the experiment, participants elaborated on whether and why they would engage in a

particular action, as well as why they believed the source of the message from the first slide was consistent or not with the new information. In the context of the deviation observed in the *East/West* topic, these are some of their elaborations, which help identify the causes of that deviation.

I would not support an action that would entail the imposition of sanctions on Russia – why would I? However, if that were to negatively affect us, since we are highly dependent on EU-funded projects and if those were to be jeopardised, then I would support the imposition of sanctions.

I would not sign anything, because I do not know what is good for my children, who will grow up here in the future.

I am not in favour of imposing sanctions. But if the European Union were to clearly communicate that we will become a member and that this is a condition, then yes.

The elaboration provided by the participants in the interview offers further clarification of the discrepancies in the responses concerning the *East/West* topic – due to Serbia's experience with sanctions, a certain number of participants who are pro-Western in orientation are not in favour of imposing sanctions on Russia; however, if this were a condition for European Union membership, they would be. This line of reasoning suggests that if, in the course of motivated reasoning, there is something in the opposing message to which participants are fundamentally opposed, they will acknowledge that argument – but only if it does not directly threaten their motive. Therefore, even when a participant responds contrary to their attitude, the approach to the *accuracy goal* is not a result of increased rationality, but rather a by-product of a different kind of rationalisation. For instance, participants who support the West but are fundamentally opposed to the institution of sanctioning, although they see in the content of the messages that a decision not to vote for sanctions jeopardises their motive of EU accession, rationalise that the message content does not necessarily imply that sanctions against Russia are a condition for EU accession or they find arguments as to how such a condition could be avoided.

However, when directly asked what they would do if that were an unambiguous and direct condition, they respond that in that case, they would take the action of voting for the introduction of sanctions. In this case as well, it is evident that participants do not make decisions based on the content of the message but rather based on their emotional relationship (as the dominant element of motivated political reasoning) to their motive - in the case of taking action, according to the motive, for example, the belief that Serbia should be oriented towards the West in foreign policy, and in the case of response discrepancies on that topic on the slides *Consideration* and *Action*, according to the motive that they are fundamentally opposed to the imposition of sanctions. Thus, in both cases we still have indicators of motivated political reasoning, which shows that a simple insight into participants' responses cannot always serve as the only indicator. Rather, it is necessary to analyse the participants' elaboration on why they made a certain decision and to interpret those responses in the context of insight into the neural bases of their reactions.

Also, in the responses, that is, in the elaboration of their decisions during the interview, a portion of participants explicitly state that their decision is based on a certain feeling. Interestingly,

none of these participants initially responds to the question of why they made a particular decision by saying that it is because they *feel* it is the right decision. Each participant begins with arguments they consider to be rational. Only after several follow-up questions pointing to the inconsistency of their decision in relation to the new information, when participants can no longer find arguments to rationalise their decision, do they resort to an explicit response that they are making their decision based on feeling. This too aligns with the way the motivated political reasoning paradigm explains how individuals make decisions under the influence of this cognitive mechanism. In pursuit of the *directional goal*, the influence of emotion occurs at the unconscious level, while at the conscious level people believe that their decisions and reasoning are logical and rational. This is precisely what Lodge and Taber describe as the rise of rationalising voters in place of rational ones (Lodge & Taber, 2013). Therefore, when faced with a situation in which they can no longer provide an answer to follow-up questions to rationally justify their decision, participants resort either to explicitly stating that their reason is emotional or to implicitly signalling it – for example, by saying that they heard it from a trusted source and that, even though they can no longer rationally justify their decision, they will remain committed to it. The following are some examples of such participant elaborations:

The new information does not influence me, that is definitely corruption. It happened in the town where I live, and my sister, my children, and I have been there countless times, and I cannot imagine such a tragedy happening to someone close to me.

I feel like a fool when I hear people say that it is not corruption, because it is. I feel sadness. More sadness than anger.

Well, I am personally somewhat pro-Western in orientation, and with my heart I believe more that by turning towards them we can better fulfil and realise ourselves, whereas I do not trust the East, neither personally nor professionally.

That will not happen; we are a brotherly nation. I trust the Russian ambassador more. They are our Orthodox brothers; they have always helped us.

I rationally understand why people support the European Union, but the EU evokes a negative feeling in me.

Based on the analysis of participants' responses, it was detected that out of 80 observations (20 participants × 4 topics), only in 11 cases, during the confrontation with inconsistencies in their argumentation during the interview, did the participants state that they were uncertain whether they would maintain their position, and in only 2 cases was there an actual change of opinion. The cases in which a change of opinion was declared support the thesis of the *affective tipping point*, which asserts that changes in attitudes, opinions, or beliefs occur when the quantity of opposing information exceeds the level at which individuals are able to find arguments to rationalise their decision, and the change occurs as a result of increased negative emotion, that is, anxiety. This is also consistent with Westen's thesis that attitude change occurs due to a change in emotions rather than information (Westen, 2007). However, it is noteworthy that admission of a change in opinion

occurred in only two cases, which means that the participants' self-reported answers do not correspond to their responses during the experiment (on the topics *East/West* and *Corruption*). This could also be interpreted in the context of the role of the unconscious in this cognitive process, as during the interview it appeared that participants were unaware that the majority of them had responded oppositely on two topics just minutes before, during the experimental testing. If we interpret this as irrationality, it is particularly interesting that in response to the question about taking action, deviation was recorded in as many as two topics, whereas in the question regarding the assessment of (in)consistency, it was recorded in only one. Such data could be related to Elil's thesis that individuals, under the influence of political persuasion, irrationally engage in action.

In some cases, even after follow-up questions, participants did not express feelings as the reason for their decision-making. It is not possible to precisely determine the reason why individuals react differently, but it is reasonable to assume that this difference is related to whether or not there is an awareness of emotions, which, according to the paradigm of motivated political reasoning, are in fact present and guiding from the first moment of encountering the stimulus, that is, the selection of concepts that at that moment transition from long-term into working memory. More precise answers to these questions could be provided by individual analysis of the neural responses of each participant, which is possible based on the data generated in this study.

○ **Neural Bases of Motivated Reasoning**

• Analysis of Emotiv Cognitive States

The factor of the slide in the analysis of six cognitive states (*attention, engagement, excitement, interest, relaxation, stress*), that is, EMOTIV measures, showed a significant effect. Considering that this study proceeds from a *partnership-based* relation and inseparability of cognition and emotion, and that the EMOTIV metric records states that include affective reactions, in the following discussion they will be referred to as emotional-cognitive states. The significant effect of this factor indicates that different slides, that is, different phases of motivated political reasoning, are also reflected in the field of the brain's electrical activity, meaning that participants exhibit different cognitive and emotional reactions depending on which slide is shown to them. However, although this effect is statistically significant, the results show that it is a very small effect. Thus, this demonstrates that differences in the variances of emotional-cognitive states can only be attributed to the slide effect to a small degree. Additionally, a significant interaction between the slide factor and the slide-set version was recorded, indicating that the pattern of EMOTIV measures differed depending on whether the slides were shown in the *Pro* or *Contra* version. It is particularly interesting that the interaction between EMOTIV states and slide versions does not show significance, which will be discussed later. This result indicates that message processing occurs under the influence of individuals' motives and their relation to that motive, rather than the content of the message. This finding is, therefore, in accordance with the main hypothesis of this study.

The EMOTIV measure factor showed the most significant effect, which means that certain emotional-cognitive states were considerably more prominent in the processing of the presented political messages than others. This result indicates that the presented messages activated mental patterns regardless of the phase of the message or the version of the slides. In other words, certain

emotional-cognitive states are consistently more pronounced than others, while others are significantly weaker or activated less frequently, regardless of which slide and in which version the participant is viewing. Such a result points to selective emotional engagement in the context of reaction to political messages, which is in accordance with the theses on selective attention and engagement (Westen, 2007; Zajonc, 1980). The results show that nearly 30% of the total variance in emotional-cognitive responses can be attributed to this effect. This result also confirms the main hypothesis that the persuasive effects of political messages predominantly align with the individual's relation to their own political motive, rather than with the content of the message.

The interaction between EMOTIV emotional-cognitive states and the slide version (Pro/Contra) examined whether emotional-cognitive states change depending on the version of the slides, that is, whether participants receive political messages that align with their attitudes or not. The result shows a complete absence of a statistically significant effect, which also confirms the stability of emotional and cognitive processing patterns regardless of which slide version was shown to them. This finding supports the assumption of emotional resilience, that is, that individuals do not change dominant cognitive and emotional patterns in relation to the message content, even in cases where they are faced with messages that are either entirely consistent with or entirely opposed to their attitudes. Thus, this reaction shows that participants exhibited emotional resilience in relation to the content of the message and that their cognitive and emotional responses to the message content were more a result of internal psychological dispositions related to the topic, than of the presented content of the specific message. A concrete interpretation of this result could be translated into a situation in which an individual, when listening to a message from a candidate, reacts at the level of neural bases of cognitive-affective states in accordance with their relation to that candidate, not with the content of the message that the candidate is conveying. The aforementioned significant effect of the interaction between slides and slide versions could, in that example, be translated in such a way that this individual would exhibit differences in emotional-cognitive states depending on the different phases of that candidate's speech.

In this case, the aforementioned psychological dispositions are evidently directly related to the motive and the affect that, according to the paradigm of motivated political reasoning, accompanies that motive, determining the manner of its defence from the encounter with the opposing message to the point of reaching a conclusion or decision (the achievement of the follower's goal, that is, the directional goal). Thus, this result, interpreted within the framework of the motivated political reasoning paradigm, indicates that the emotional and cognitive processing of political content tends to be consistent with existing emotional-cognitive patterns determined by the individual's motive. One of the directions for further, more detailed investigation of this result, based on the data generated in this study, could be in the direction of examining this emotional resilience in the context of theses related to the activation of negative emotions for the purpose of defending motives and reinforcing existing attitudes.

The interaction of the slide and EMOTIV cognitive states examines whether different slides, that is, different phases of motivated reasoning, activate different patterns of emotional-cognitive states. The result showed that there is a significant, although small, dependence between the phase of the message and the emotional-cognitive response. Most emotional-cognitive reactions did not change drastically in relation to the presentation of different slides, but there is a certain number of specific interactions that indicate deviations. This finding also supports the

thesis of emotional selectivity, that is, that emotional-cognitive responses are most pronounced on cognitively demanding slides. This shows that the phase of motivated reasoning partially shapes the emotional-cognitive response, but that effect is not uniform. It would be more accurate to say that there are *hotspots* of emotional processing which are probably related to cognitive conflict. Such an interpretation points to the existence of an interaction between cognitive load and affective reaction. Also in this case, the data generated within this study, which are provided in the appendix, enable a more detailed analysis of this result.

The three-way interaction of slide, EMOTIV measures, and version of the slide set did not show statistical significance, which also indicates that the neural bases of the way participants react to different slides does not depend on the version of the slide set they were presented with, that is, whether they are exposed to slides containing messages that are aligned with their attitudes or not. In other words, the neural bases of participants' reactions remains consistent regardless of the tone of the message (slide set version). This means, for example, that if the Rationalisation slide elicits higher stress and lower excitement – such a pattern is repeated even in the case of the opposite version of the slide set. In this case as well, the main thesis is confirmed – that an individual's reaction to a political message predominantly depends on their relation to the motive under the influence of which they process the message, and not on the content of the message. Directions for further research into aspects of this three-way interaction could relate to establishing regularities in these patterns, and such research can be conducted on the basis of the data obtained in this study.

As for the examination of whether there is a difference in the overall emotional-cognitive response between the group of participants presented with the *Pro* set of slides and those presented with the *Contra* set, the result showed that there is no statistically significant difference. This means that, on average, participants did not show a higher level of engagement if the message was in one version of the slide set compared to the other. This finding also supports the basic assumption of the theory of motivated reasoning – that individuals do not react cognitively and emotionally to the content of the message, but filter messages through already existing patterns formed under the influence of their motive in relation to the message content. Therefore, the absence of this effect indicates that the processing of messages occurs in accordance with the already existing mechanism for evaluating information related to the content of those messages. The fact that EMOTIV measures show a reverse trend after the Contradiction slide clearly demonstrates that, when confronted with opposing information – not only to the individual's attitude but also to the first emitted message (regardless of whether that message aligns with their attitude or not) – there is a change in cognitive states that is maintained even at the moment when the individual makes a judgement about the presented messages or a decision about whether to take action.

Simple contrasts using the first slide (*Statement*) as a reference showed that emotional and cognitive responses declined as the slides progressed, that is, as participants moved from the first slide towards the slides where they made conclusions about the read messages or decisions about taking action related to the content of those messages. This result is particularly significant in the context of analysing the mobilising role of political persuasion, as it shows the neural bases of the participant's reaction from the moment of message emission to the moment of making a decision about action. If we observe this data in the context of the persuasive sequence, it provides insight

into what occurs at the cognitive and affective level between the phase of message emission and the influence on attitude or behaviour. That part of the persuasive sequence is precisely what is crucial for this research. Thus, Ellul states that the individual takes action *irrationally*, whereby he actually, when speaking of the influence on behaviour, speaks more of the consequence, while the cause remains obscure, being marked only at a speculative level as irrational. The insight into the neural background of participants' reactions in this research, across all the phases that the participant passes through under the influence of motivated reasoning until the phase of making a decision about taking action, actually enables us to illuminate the cause of such a decision. In other words, if Ellul provides the answer to the question of what is the indicator of successful persuasion, the neural bases of the participant's reaction to the political message provides the answer to the question of what is the cause of the appearance of that indicator. These answers are likewise not final and require interpretation in the concrete context and interaction with other factors, but they undoubtedly elevate the study of the mobilising role of political persuasion above a purely speculative level.

Thus, the results show a statistically significant decline in participants' emotional and cognitive responses between the first and second slide. One explanation for such a result may be that, as a rule, the first emitted message attracts the most attention. However, this result is especially important to interpret in the context of the fact that in this experimental design the message on the second slide is in contradiction to the message on the first slide. This does not necessarily mean that it is in contradiction to the participant's attitude – that is the case only with two topics received in the *Pro* version, whereas for the other two topics in the *Contra* version the message on the second slide is actually aligned with their attitude. Therefore, the decline in cognitive and affective responses cannot be interpreted in the context of message content, which is also an indicator that can be linked to the basic hypothesis of this study. It is more likely that this decline in cognitive and affective responses is caused by cognitive dissonance or conflict, which is in line with the result showing that the decline is smaller in the case of the *Contra* version of the slides – in that version, the second slide contains a contradiction to the message on the first slide, meaning that the second slide conveys content aligned with the participant's views. The fact that the decline is greater in the case of the *Pro* version of the slide set shows that, in that case, the second slide leads to a kind of affective destabilisation.

A significant finding is that no notable difference was observed only in the contrast between the first slide and the third slide, which contains the message relating to the rationalisation phase. This actually shows that the neural reactions of the participants reflect the experimental design, that is, it is expected that rationalisation (third slide) and the message being rationalised (first slide) demonstrate a similar emotional and cognitive response. This result indicates that, during rationalisation, the individual tends to reflect the involvement present in the first message, the one being rationalised. In other words, the neural background of participants' reactions to the slide containing the rationalisation message points to an activity in which, in accordance with the paradigm of motivated political reasoning, participants attempt to rationalise the previous message that contained opposing information. Further research in the context of this result could proceed in the direction of examining the reason why which rationalisation does not show a significant effect compared to the first slide also in the case of the *Contra* version of the slide set.

In the case of slide sets in which the first message contains views contrary to the participants' own, this result certainly cannot be interpreted as an effort by the participants to rationalise or justify the message on the first slide. This means that the result may suggest that participants exhibit a similar reaction to both the message and the rationalisation of that message, regardless of their attitude towards its content. Therefore, if we interpret the decline in affective and cognitive responses from the first to the last slide in the context of expected cognitive and affective fatigue, the deviation observed on the third slide (*Rationalisation*) challenges such an interpretation. However, it is important to point out that in the case of messages contrary to the participants' views, after the rationalisation phase there is even a slight increase in affective and cognitive responses during the phase of forming a conclusion, whereas in the case of messages that do align with participants' views, a decline is observed at this stage. From this, it could be concluded that reaching a conclusion and making a decision to take action that runs counter to participants' views implies a greater cognitive and affective response than in the Pro version.

The fact that reactions in the context of both versions of the slide sets are approximately equal at the moment of exposure to the slide containing the rationalisation message shows that this phase of motivated political reasoning has a neutralising effect. The decline in the cognitive states of excitement and attention may be interpreted as participants shifting from affectively oriented states (exposure to political messages) to cognitively oriented states (forming conclusions and deciding whether to take action). An analysis of the diagram showing the progression of emotional-cognitive states in relation to the slides and the version of the slides indicates that the rationalisation phase may be viewed as a kind of stabiliser of affective information processing. The position on the diagram could suggest that the message is cognitively processed without an intense emotional reaction.

On the fourth slide, which relates to reflection or drawing a conclusion about the content of the previously presented messages, results show a drop in emotional and cognitive response compared to the first slide. In the case of this slide, the drop is greater than on the previous two. This can be explained by the fact that in this phase participants enter a deliberative mode of thinking, since after the slides where only reading was expected, they are now confronted with slides posing questions. This result may also be interpreted in the context of the previously presented rationalisation slide, where a stabilisation of the response occurred – which may be interpreted as a tendency to confirm the emotional-cognitive reaction that the participant had under the influence of the first emitted message. It is important to note that in the *Contra* version there is a slight trend toward stability - the decline in cognitive and affective states is smaller, which may reflect a critical distance from the posed question. In this phase, which demands greater cognitive engagement, participants exposed to a version that aligns with their views exhibit a drop in affective reactions, while those exposed to slide versions with messages contrary to their views maintain a certain degree of stability in their affective and cognitive dynamics. This may be interpreted as a defensive stance towards the question being posed to them.

In the context of examining the mobilising role of political persuasion, a particularly significant result is the one showing that the greatest decline in cognitive and affective responses occurs on the slide containing the message with the question about taking action. Also, a notable indicator is that this decline is particularly pronounced among participants who were exposed to the set of slides with messages aligned with their own attitudes. Observed at the level of the

trajectory of cognitive and affective responses across all slides, the most intense reactions in both versions occur on the first slide, and the lowest on the *Action* slide. However, in the *Pro* version, the reaction to the first slide is more intense, but the drop on the *Action* slide is more pronounced. This can be interpreted in the context of Ellul's comparison of the influence of propaganda, or political persuasion, on the individual with a "biological reaction to a tranquilliser" (Ellul 1965, 177). Likewise, this finding can be linked to his view that a person does not need to think in order to take action. Ellul believes this means that a person's thoughts can no longer be translated into action. The findings of this study, which also show that individuals experience a drop in emotional and cognitive states in the phase of deciding whether to take action, can be interpreted as a confirmation of this viewpoint. However, the findings of this study also show that emotional-cognitive patterns, which are established in accordance with the individual's relation to their motive upon encountering the first message, are the ones translated into action. This result suggests that participants perceive the call to action that aligns with their attitude as a kind of cognitive conclusion of the motivated reasoning process, which is expected and implied in the context of the influence of the previously delivered messages. In the previously mentioned example of an individual listening to a message from a certain candidate, this would mean that when that candidate calls for a specific action, the neural background of the individual's reaction, in line with these findings, would show that the individual makes the decision in accordance with already activated cognitive and emotional responses towards the candidate - that is, that the decision itself is made by a kind of automatism, without the need for additional emotional or cognitive engagement. This might also mean that the individual does not exert additional effort to process the content of the call to action - their response in that case is predominantly determined by their relation to the candidate issuing the call, rather than to the specific type of action. This is also consistent with Ellul's thesis on automatised reactions and irrational entry into action.

This is also in line with the result showing that the drop in cognitive and affective responses is less pronounced on this slide in the *Contra* version - participants exposed to a call-to-action contrary to their own attitude are expected to experience cognitive and affective conflict when confronted with such a call, rather than a conclusion. However, as in the case of the *Pro* version, this version also shows a drop in emotional and cognitive responses, because the relationship is determined by the relation to the first delivered message. With respect to the previously mentioned example, this would mean that an individual hears a call to action made by a candidate they do not support - their reaction is still predominantly shaped by a negative relation to that candidate, with the addition, according to the paradigm of motivated political reasoning, of the activation of negative emotions due to the *attack* on the individual's motive. The fact that the most pronounced drop in cognitive and emotional responses occurs on the *Action* slide, especially in the case of messages that align with participants' attitudes (that is, questions to which a positive response about taking action is expected), is consistent with both the hypothesis concerning the orientation of political persuasion towards inducing desired behaviour by irrational means and the hypothesis which holds that the activation of motivated political reasoning precedes the phases of attitude and behavioural change (this also relates to the result indicating the decline in cognitive and affective responses on the *Consider* slide compared to the first slide).

Namely, if there is a decline in affective and cognitive responses by the slide where individuals make the decision to undertake an action, this suggests that the affective and cognitive response to the message content was formed in earlier phases - that is, the influence under which

the individual makes the decision has already been exerted. Therefore, the neural background of participants' responses in this study does not indicate that, immediately before or during the decision-making about action, participants exhibit a higher level of cognitive and emotional response - something that could be interpreted as cognitive effort or emotional reconsideration of the decision. This also confirms that the data on the neural background of reactions to earlier slides - particularly the *Rationalisation* slide - are key for analysing how individuals make not only decisions about action, but also conclusions regarding the content of the messages they are exposed to. This is in line with Ellul's thesis on irrational entry into action, since the data suggest that the individual has, in fact, already made the decision earlier (at least on a subconscious level). In other words, their relation to the message content was already formed in earlier phases, such that the decision to act or not act, or to draw a certain conclusion, is a product of that formed attitude and, for that reason, activates a lower level of cognitive and affective responses.

Before discussing the results of the contrast between slides and EMOTIV measures, a brief overview will be given of the specific emotional-cognitive states that showed the most significant effects, since the subsequent analysis refers to them directly. In the EMOTIV metrics, *engagement* refers to how mentally involved the participant is - a higher level of engagement indicates sustained, continuous cognitive attention, while lower levels may indicate distraction or boredom. *Excitement* refers to the measurement of arousal in relation to the stimulus and reflects how emotionally stimulated the participant is by the content of the presented slide. *Interest* measures the participant's affinity towards the stimulus and their desire to continue with the cognitive task. Higher levels of interest suggest that the participant perceives the experience as personally relevant or enjoyable. *Stress* reflects the level of mental tension or pressure felt by the participant and usually increases in cognitively demanding or frustrating situations.

The results of the contrast between slides and EMOTIV measures show that *interest* gradually declined from the first slide - where it was highest - toward the *Action* slide, where it was at its lowest. This result also indicates that the influence on the participant occurred before the moment of decision-making regarding action, and that they approach this moment - whether they accept or reject it - almost automatically, which is consistent with Ellul's interpretation. On the *Action* slide, both *stress* and *excitement* were lowest, which also suggests that the participant had already made a decision consistent with their motive, primarily identified in the first message. A lower level of interest is typically associated with a cognitively passive state and reduced emotional stimulation (Bradley & Lang, 2007), which is also consistent with the observed decline in *excitement*. Thus, it can also be concluded that the cognitive task under the influence of motivated reasoning does not produce heightened emotional activity - rather, this takes place *prior* to the task. In this sense, it would be interesting to conduct a similar study in which the *Action* slide presents a question unrelated to the themes of the previous slides, as such a result could serve as additional evidence for the interpretation outlined above. It is expected that in such a case, cognitive and affective responses would increase again, because the call to action would represent a new kind of information for the participant - thus prompting a new emotional and cognitive re-evaluation of the relationship between the message content and their motive or goal.

The decrease in stress on the slide referring to the call to action is, for the same reason, also present on the slide referring to drawing conclusions. In interpreting this finding, it is again necessary to return to the previously mentioned Ellul's metaphor regarding the effect he compares to that of a tranquillizer. Attention also decreases from the first slide to the *Action* slide. This finding, in the case of the cognitive state of attention, can be interpreted in two ways. On the one hand, it may be viewed from the perspective of the importance of attention for the success of political persuasion, which would imply that in later stages of persuasive messages it is necessary to include elements that would prevent a decline in attention due to cognitive fatigue. However, in the context of motivated political reasoning, the interpretation might be the opposite—the decline in attention may be viewed as an effect of a sort of “hypnotic” influence of motivated reasoning.

This finding is also consistent with the result showing a decline in *engagement* on the slides related to *Consideration* and *Action* (with the largest drop), which indicates a reduction in cognitive involvement. This is another indicator that can be linked to the way Ellul interprets the circumstances under which an individual enters into action and remains in it, particularly in the context of what he defines as irrational. The downward trend in engagement further supports this interpretation, as a decline in engagement can be interpreted as an indication that the content is either not relevant to the participant or appears predictable and safe (Lang, 2009). In the case of this study, the decline in the cognitive state of engagement can be interpreted precisely as a result of its predictability.

This would mean that understanding how an individual reacts to an opposing message and how they rationalise it enables the prediction of whether and how they will undertake action. Here, it is particularly important to note that the level of stress was highest precisely on the slide related to *Rationalisation*, which indicates the significance of this phase of motivated reasoning for the way an individual makes decisions and draws conclusions. In other words, after confronting information that is contrary to the participant's opinion, the further course of the *path* toward achieving the directional goal depends on whether the individual has successfully managed to rationalise the opposing information. This is a significant result in the context of the hypothesis that changes in behaviour and attitudes are the result of the rationalisation of the individual's emotional relation to their political motive. For a detailed analysis of this interpretation based on the available data, it is possible to examine the neural background of each participant's reactions and compare it to the responses they gave before, during, and after the experiment. The validity of such an analysis also demonstrates the interdisciplinary potential of the field of neuroscience and political marketing, as well as the ways in which data from neuroscientific measurements can contribute to the interpretation of behavioural data and other forms of traditional attitude assessment.

Finally, the emotional-cognitive state of *excitement* shows the most pronounced decline of all states - a peak was detected on the first slide, while the greatest drop occurred on the *Action* slide. This result indicates that, in fact, taking action represents a reflection of the emotion and arousal triggered by the first message to which the action relates, that is, the moment when the individual activates an emotional relation to the motive. This reflection is manifested in the decrease in excitement or arousal, as the individual reaches the *partisan's goal*, or the *directional goal*. This result is in line with Westen's view that change in attitude is primarily driven by emotional change, meaning that only a change in the emotional relation to the first message

could influence a change in behaviour. Ultimately, this would imply either a change in the motive or a change in the message content in the direction of altering the relationship between the message and the motive.

As previously noted, the findings in this study indicated that emotional and cognitive involvement varied significantly across slides. Although affective and cognitive responses declined as the slides progressed, when observed through individual cognitive states, a significant decline in engagement was noted, but also an increase in stress during the transition toward the *Action* and *Consideration* slides. This can be explained by the fact that these are the first slides where participants are expected to respond, which, in line with this data, may mean that they perceive this as a more cognitively demanding task than reading the preceding slides. Here, only the key trends in the progression of emotional-cognitive states relevant to the hypothetical framework of this work have been presented. However, the available data allow for more detailed investigations into the progression of all emotional-cognitive states. Based on the data provided in the appendix, it is possible to determine in more detail how the emotional-cognitive states differed from one another, which opens up the possibility for a more detailed study of the neural bases of participants' reactions to each slide. Within this discussion, it is important to point out that from the *electrical language* of the brain we can *translate* how, at the level of the neural bases of cognitive-affective states, participants react differently to each phase of motivated political reasoning. The fact that the data showed that each participant's cognitive states changed depending on which slide was presented to them provides evidence that, on a neural level, individuals react differently primarily to different phases of the decision-making process under the influence of motivated reasoning, rather than to the content of the message. The analysis of the specific ways in which this reaction differs on each slide, across all six cognitive states and all five brainwaves, goes beyond the scope of this work, as each slide could serve as the basis for a new study. However, what is important to highlight in the discussion of this research is that the research and experimental design of this study enabled the generation of data upon which such studies can be conducted.

- **Analysis of brainwaves (delta, theta, alpha, beta, gamma)**

In addition to the analysis in which Emotiv cognitive states are the dependent variable, this study also included specific analyses focusing on the activity of *raw* EEG signals, that is, the five frequency bands (brainwaves – delta, theta, alpha, beta, gamma). Regarding the effect of the slide, a significant effect was recorded, indicating that brainwave activity significantly changes depending on the phase of motivated political reasoning in which the participant is located. EEG amplitudes are highest on the initial slides and decrease towards the slides where participants are required to draw a conclusion or make a decision about engaging in an action. This finding aligns with the previous analysis, which showed a decline in the values of emotional-cognitive states from the first to the last slide. This suggests that the initial slides elicit greater attention and emotional activation, while in the final phases there is a drop in engagement. In the context of political persuasion, this finding indicates that the neural bases of participants' responses shows that the message from the first slide has the greatest persuasive potential. This is also consistent with the previous analysis, which showed that the influence on attitudes and behaviour (conclusion and decision to act) is primarily determined by the emotional relation toward the initial message on the first slide.

This finding may also suggest that messages lose emotional-cognitive strength when they shift into imperative forms in which participants are required to perform a task. This does not mean that participants are unwilling to carry out the task, but may indicate a form of automatic response, as suggested by the results of the previous analysis. Once again, returning to the example of an individual listening to a candidate's address - at the moment the speech begins, brainwaves show the highest activity, and by the time the candidate asks for a conclusion to be drawn or issues a call to action, the participant already has a formed relationship, determined by whether they support that candidate or not. The decline in brainwave activity, although it suggests that the persuasive power of the message weakens toward the final slides, does not mean that the participant is less inclined to be persuaded to, for example, engage in action, but rather that this effect has already occurred in the earlier phases.

As in the case of EMOTIV measures of emotional - cognitive states, there is also no significant interaction effect between the slide version and EEG signals in the case of brainwaves. The fact that the emotional-cognitive pattern of the neural bases of participants' responses does not change depending on whether they are viewing a version of the message that aligns with or contradicts their attitudes likewise confirms that participants do not react according to the content of the message, but rather according to their relation to the motive that is already formed at the point of the first message. These results suggest that an individual listening to the address of a candidate they support and a candidate they do not support retains the same patterns at the level of brainwave activity, regardless of the content, i.e., tone, of their messages. However, although the overall interaction in this case does not show a significant effect, the chart indicates a trend in which brainwave activation was higher on the initial slide containing a message aligned with the participant's attitude, compared to the slide from the opposite version that contradicts the participant's attitude.

If we return to the previous finding indicating a slide effect, it means that the participant's brainwave patterns are more strongly affected by the phase of motivated reasoning (which may conditionally refer to the structure of the presentation in general) than by whether they agree with the content of the message. This finding can also be interpreted in light of the assumption that participants simply ignore content that contradicts their attitudes automatically, that is, they do not invest additional emotional and cognitive effort in processing messages that are contrary to their beliefs. In other words, this result may indicate that participants process messages more emotionally and reflexively, without making a deliberate cognitive effort to analyse or refute information that contradicts their attitudes. This may also suggest a fast and instinctive response below the level of consciousness, which aligns with the premises of the motivated reasoning paradigm and with the findings of Westen's experiment. A more detailed exploration of this finding could involve examining whether individuals are more influenced by the content and tone of the message or by the structure of the presentation, and how those factors interact. This result is particularly relevant in the context of managing participant responses, i.e. in terms of the effects of political marketing, strategic message structuring, and the steering of motivated reasoning. Given that this result suggests that the content and tone do not influence the neuronal activity that is determined by the structure of the presentation, it points to the relevance of the structure that follows the trajectory of motivated reasoning for the effects of political marketing.

The effect of EEG waves refers to whether different brainwaves show different levels of activity regardless of the slides and versions of the message. Here, a strong main effect of frequency bands was recorded, and results showed that delta and theta waves had the highest average activation, while alpha and beta waves were moderately active, and gamma showed the lowest activation. The dominant activity of delta and theta waves indicates that the presented messages were processed primarily at the emotional level, without deeper cognitive elaboration. delta wave activity is associated with deep sleep and unconscious states, but also with internal attention. Elevated delta values in this case do not indicate increased drowsiness, but rather that the presented message was more emotionally meaningful or personally relevant, since delta waves are also associated with affective responses and emotional resonance. For a more accurate analysis of what elevated delta waves indicate in this case, it is useful to refer to a situation that represents a typical example of a response in which delta waves increase during wakefulness – a child so absorbed in play that they do not hear a parent calling them. Therefore, participants who showed elevated delta wave values during the presentation of a certain message were not drowsier, but rather - more *absorbed*. Increased delta wave activity dominated in the initial slides, which also suggests that participants primarily form an emotional relation toward the first message.

Theta waves have a faster rhythm than delta waves, but are also slow and associated with drowsiness, daydreaming, memory encoding, emotional memory, and unconscious processing and negative emotional effects such as frustration (Panksepp, 1998). Results indicate increased theta wave activity during the initial slides, i.e., the initial evaluation of messages by the participants. These findings are consistent with the premises of the motivated reasoning paradigm, which state that individuals do not respond to political messages by being rationally accuracy-oriented, but rather that affect is activated first and subsequently guides the rationalisation of all information that contradicts the individual's motive (Lodge & Taber, 2013). The results of this study demonstrate precisely that – participants do not engage in rational processing of the message, but process it emotionally (indicated by elevated delta waves) and through short-term and selective attention (indicated by theta waves). Low gamma wave activation indicates that participants do not enter into deep analytical processing of the messages, meaning that there is no conscious integration or higher-level cognitive processing. Gamma waves have the fastest rhythm and are considered to reflect some of the brain's highest functions, such as perceptual and higher cognitive processes (Panksepp, 1998). Increased gamma wave activity is typically associated with intensive information processing and conscious awareness.

The dominance of delta and theta waves sheds considerable light on what Ellul referred to as the irrational and is consistent with the hypothesis which posits that political persuasion is aimed at eliciting desired behaviours through irrational means. Using the example of an individual listening to the address of a particular candidate, these results would suggest that they react to the messages they hear predominantly affectively, and that this affect is determined by their motive. They do not engage in deeper cognitive elaboration of the message, but rather—consistent with the assumptions of the motivated political reasoning paradigm - they cognitively and emotionally process the message content primarily in order to protect their motives, that is, their existing beliefs, and not based on an objective and rational evaluation of that content. Returning to the earlier metaphor of a child immersed in play who does not hear a parent calling, in this case the individual listening to a candidate's address *does not hear* the part of the message content that is inconsistent with their motive. Just as in the aforementioned metaphor the child ignores the parent

because they wish to continue playing, this individual reacts in the same way - seeking to defend their motive.

The interaction of EEG brainwave signals and slide version revealed no statistically significant effects, which is another indicator that participants did not react predominantly based on message content. This means that there was no difference in what could be referred to as a mental-processing strategy with regard to whether participants were shown messages that aligned with their own attitudes or contradicted them. An interesting finding that calls for further research in this area is that there was no observed increase in affective response to the *Pro* version of slides (which would be reflected in higher delta and theta values), nor a stronger activation of defensive mechanisms in the *Contra* version (which would be reflected in increased beta and gamma wave activity). This result is consistent with the position offered by the motivated political reasoning paradigm, which explains that individuals more quickly and intensely accept information aligned with their existing attitudes, and emotionally and cognitively reject information that challenges those attitudes, often without engaging in deeper processing.

This result, using the example of an individual listening to a candidate's address, suggests that if the candidate is someone the individual does not support, there is a higher likelihood of ignoring unpleasant content rather than activating selective cognitive engagement or argumentative countering in an attempt to resolve cognitive and emotional conflict. However, what is particularly interesting is that in the case of a candidate the individual does support, these results suggest that passive affirmation is more likely than heightened cognitive elaboration in service of that affirmation. Of course, such individual responses cannot be considered in isolation from the broader circumstances and context, nor can they be considered universally applicable. Precisely for that reason, this result points to the legitimacy of conducting more detailed examinations of this interaction in order to specify the conditions under which this pattern of response occurs. The significance of such research for the field of political marketing effects is clear, and the data provided in the appendix of this study enable such further inquiry.

The interaction between different slides and EEG brainwave signals revealed statistical significance. This interaction examined whether brainwaves behave differently depending on which slide was presented to participants, that is, depending on the phase within the course of motivated reasoning. Delta and theta waves exhibited high values on the initial slide and declined toward the final slides, whereas alpha and beta waves displayed less fluctuation - they remained stable or showed only a slight decrease. In this interaction as well, gamma waves had the lowest values and showed the least variation. Alpha wave activity is associated with relaxed wakefulness and calmness, and increases in alpha can be linked to elevated mental effort or sensory processing. Alpha waves also indicate which areas of the brain are activated during specific cognitive tasks or emotional situations (Panksepp, 1998). Beta waves are considered an excellent measure of cognitive and emotional activation (Panksepp, 1998) and are associated with active thinking, focus, and problem-solving. Higher beta wave values typically correspond to anxiety, heightened vigilance, or cognitive engagement.

The decline in delta and theta waves indicates a decrease in emotional responses, which is consistent with the results of the analysis of EMOTIV emotional-cognitive states. Slight variation in alpha waves suggests either attention to content that is relevant to the participant or,

alternatively, inhibition of attention, while stable and slightly declining values of beta waves indicate moderate cognitive effort. Low and unchanging activity in gamma waves indicates that deep emotional and cognitive integration is not present. These results also suggest that processing requiring heightened attention and emotional engagement is active during the initial slides, while cognitive and reflective processes remain weakly engaged throughout the entire message. These findings are particularly important in the context of the final slides, which concern drawing conclusions and calls to action – although these phases require increased cognitive elaboration, the results are consistent with the premises of motivated reasoning, as they show that message content at those stages is accepted or rejected on an emotional level, without additional cognitive effort.

The three-way interaction between slide, EEG brainwave signal, and slide version showed statistical significance, but with a very small effect. This interaction examines whether brainwave activity changes in relation to different slides and whether this change depends on the version of the slide. Subtle differences were observed in the way that different phases of the political message engage specific neural reactions, depending on whether the message is consistent with or contrary to the participant's attitude. In certain phases of the message, the *Pro* version elicits higher emotional reactivity, but in the later slides, there are no indicators of deep cognitive engagement in either version. The data available in the appendix enable more detailed analysis of this interaction. Within the hypothetical framework of this study, this interaction also aligns with the hypothesis which states that political persuasion aims to provoke the desired behaviour through irrational means – the key indicator in this interaction is the absence of neural indicators of cognitive engagement when slides prompting participants to draw conclusions or decide on taking action are shown.

The analysis of the effect of slide set version among participants showed that, in total EEG activity, there is no significant difference between participants who were presented with a set of slides consistent with their attitudes and those presented with a set of slides contrary to their attitudes. This analysis also showed that whether the message aligns with or contradicts the participant's stance is not a sufficiently strong stimulus to provoke significant emotional or cognitive responses at the group level. This result may indicate that participants quickly and affectively dismissed or ignored the content of messages that did not align with their attitude, without further engagement to process those messages, and that they passively accepted and confirmed content that did align with their views.

The analysis of EEG brainwave signals showed that the strongest effects in the context of political persuasion are related to the phase of motivated political reasoning (i.e., the slide or structure of the message) and the type of cognitive-emotional processing (i.e., EEG waves). The results of this analysis not only addressed the questions posed by this study's hypotheses but also provided directions that support the legitimacy of further research in this field, based on the data generated within this study.

○ **Comparison of Different Phases**

The analysis of changes in cognitive states and brainwave activity was also conducted in relation to transitions from one slide to another, in order to examine and compare participants' responses to shifts between different phases of motivated reasoning. Thus, in the case of the

transition from the first to the second slide, participants' reactions were examined as they moved from the phase of message transmission to being confronted with new information that contradicted their attitudes (or vice versa in the case of the *Contra* version), that is, the extent and nature of the change in emotional-cognitive states and brainwave activity between the first and second slide in both versions. In the version where the first message was aligned with the participant's attitude, a significant increase in interest was observed in comparison to the second slide. The results showed that the neural bases of the participants' responses exhibited a much greater increase in interest when a message consistent with their views was presented, compared to a message inconsistent with their views. This indicates that, when confronted with a message consistent with their attitudes - after previously being exposed to a contradictory one - they become more emotionally and cognitively engaged, as they experience the message as a confirmation of their beliefs.

The trend is reversed when, after a message aligned with their attitude, they are faced with a new message whose content contradicts their beliefs. This finding is consistent with the paradigm of motivated political reasoning, as it points to the activation of selective attention, that is, individuals show significantly more interest in content they support, while they tend to ignore opposing messages. When an individual is confronted with a supportive message after a contradictory one, this increases their interest due to the perception that the message confirms they were right; in the reverse case, they experience a decline in interest because they are far less concerned with a message they disagree with. This finding is also particularly important in the context of studying the effects of political marketing, as it may serve in strategically positioning messages to influence the recipient's level of interest.

Another significant effect in this measurement was a considerably greater increase in *theta* wave activity in the case where the participant was confronted with a message consistent with their attitude after being exposed to a message with which they disagreed (*Contra* version). This finding indicates heightened emotional reaction, which is also highly relevant in the context of examining political marketing effects. Additionally, in the same situation, an increase in alpha wave activity was recorded, which can be interpreted as attention being directed toward anticipating further confirmation of the participant's attitudes. Also in the same situation (*Contra* version), trends toward significance were detected in increased delta and beta wave activity compared to the *Pro* version, suggesting deeper emotional processing of messages (delta waves) and greater focus and more active cognitive processing (beta waves) of messages consistent with participants' views after they had been exposed to messages with which they disagreed. These results indicate that individuals do not process messages emotionally and cognitively in a neutral manner - when they receive confirmation of a view consistent with their own, they devote more attention, are more emotionally engaged, and engage in deeper thought about the content of the message. In the reverse situation, when after a message they agree with they are exposed to a message that contradicts their views, cognitive and emotional processing decreases, and such messages tend to be ignored. These findings are also consistent with the paradigm of motivated political reasoning - messages with congruent content are processed more actively, deeply, and affectively, while incongruent ones are suppressed or ignored.

Interestingly, the measurement of neural activity during the transition from the contradiction phase to the rationalisation phase does not show statistically significant differences in either version. This

finding suggests that participants remain under the influence of the prior transition from message transmission to contradiction, which is also an important insight for examining political marketing effects. Another notable finding is that there is no statistically significant difference between the slides related to drawing conclusions and those concerning the decision to take action, regardless of the order of the slides or the version. Although there are some slight trends suggesting potential directions for further research into the influence of the sequence of these two cognitive tasks, this study shows that it is not significantly important whether an individual is first faced with the requirement to draw a conclusion or to take action. No statistically significant effects were detected in other analyses conducted in this study regarding the slide order either.

- **Analysis of the influence of topic on emotional–cognitive states and brainwaves**

As previously noted, this study did not aim to examine in detail the participants' reactions to specific topics, as this was not the focus of the research. However, two ANOVA analyses were conducted in which topic was included as a factor - one with EMOTIV measures (six emotional - cognitive states) and one with brainwave factors (delta, theta, alpha, beta, and gamma). Since all the analyses demonstrated the presence of patterns in emotional - cognitive states and frequency bands, these analyses were conducted solely to identify the role of different topics, that is, different types of polarisation in the formation of these patterns. The key finding is that these analyses showed that the formation of these patterns does not depend on message content or the version of the slides but does depend on the topic. This finding is further confirmation of the dominant role of motivation, which is activated in different ways and to different intensities depending on the topic or polarisation.

The fact that, in this study, the same participants were presented with four different topics enabled not only the identification of the neural bases of motivated reasoning, but also the ways in which different topics activate different matrices of this cognitive mechanism. This is also a significant finding for the application of knowledge about the neural bases of motivated political reasoning in the field of the effects of political persuasion and political marketing - to investigate the influence of motivated reasoning, that influence must be examined and analysed through the framework of specific emotional–cognitive patterns activated by specific polarisation. The data generated in this study, available in the appendix of this thesis, enable further research focused on analysing participants' reactions to each individual topic, and on identifying the emotional–cognitive matrices formed as a result of participants' motivation in relation to those topics.

The overall results confirmed the framework of motivated political reasoning and the way in which this mechanism influences cognitive–affective message processing under the influence of political persuasion. Emotional engagement and neural processing varied dynamically across different phases of motivated reasoning, and the results showed a decrease in engagement and an increase in stress, that is, cognitive and affective conflict, as the slides progressed from statement to action. Neural and emotional responses were influenced by whether participants were exposed to the Pro or Contra version of the slides in such a way that the messages in the Pro version were processed without conflict, while the Contra messages triggered defensive responses or the activation of avoidance patterns. Specific EEG frequency bands indicated a decrease in engagement and cognitive conflict when facing messages whose content was contrary to the participants' attitudes. Beta activity during the presentation of the Action slide indicated the

motivational relevance of the message in terms of readiness for action in the case of the Pro version, or conflict in the case of the Contra version of the slide set. The neural background of participants' reactions revealed clear patterns corresponding to how the paradigm of motivated political reasoning interprets the effects of political persuasion. Thus, the data obtained using EEG could be interpreted in the context of the hypothetical framework, namely the analysis of the persuasive sequence and Elil's thesis.

Finally, it is especially important to emphasise that this research design made it possible not only to construct a model through which the role of motivated political reasoning in the effects of political persuasion can be identified on the basis of insight into the neural background of participants' reactions, but also to construct a model for generating data that may be used for managing those effects. Thus, if we start from the assumption that the mechanism of motivated reasoning is activated after the message is delivered, insight into the neural bases of individual reactions under the influence of that mechanism allows for the adaptation of the message based on analysis of the obtained data in order to achieve the desired effect. The figure 90 presents an example in which the desired effect is a change in attitude or behaviour. In the case of the presented model, it is also important to stress that data on the neural background of individual reactions must be analysed in the context of data obtained through traditional attitude measurement techniques. However, data on the neural activity of participants under the influence of a political message as a stimulus open up a unique dimension in the interpretation and management of the effects of political marketing.

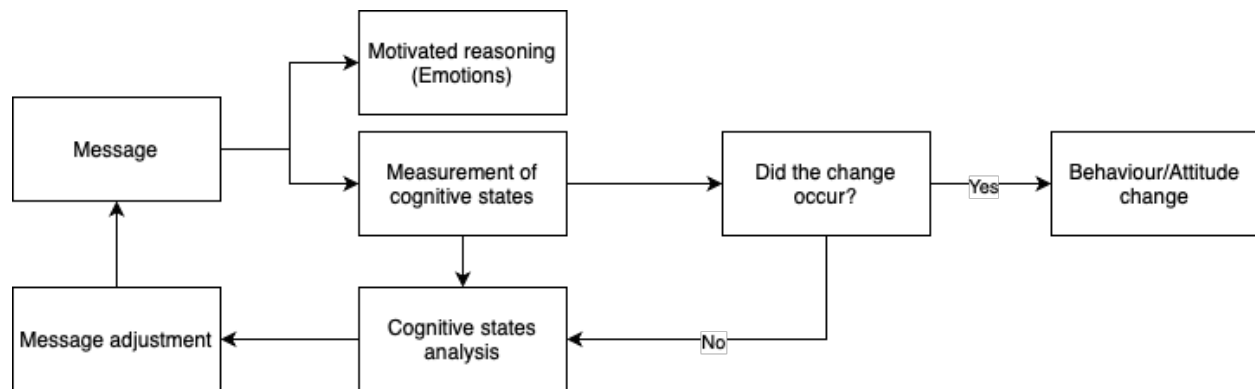


Figure 90 Cognitive states analysis as a tool for increasing the influence of the message on attitudes and behaviour

13. Conclusion

The way individuals make political decisions and draw conclusions under the influence of political persuasion is inseparable from the way they respond to the relationship between persuasive messages and their motivation. Starting from the standpoint that all reasoning is to a greater or lesser extent motivated (Lodge & Taber, 2012), as well as from the findings of Westen's research on the neural bases of motivated reasoning, which demonstrated the dominant role of emotions in this cognitive process, this implies that political decision-making must primarily be observed through the perspective of the interaction between emotion and cognition. Precisely for this reason, this study explores the effects of political marketing through the lens of motivated reasoning, as a cognitive mechanism in which emotions govern not only how political messages are processed but also the selection of message content that will be processed at all. Based on the sequence of persuasion proposed by Ellul in his thesis on orthopraxy, this study examines the neural bases of motivated reasoning with a particular focus on the mobilising role of political persuasion, as well as on seeking answers not only about the sequence of persuasive progression but also its key elements.

Thus, the analysis of the persuasive sequence is based on the analysis of the neural bases of individual responses under the effect of motivated political reasoning, due to the parallels that can be drawn between the characteristics of this cognitive mechanism and the manner in which Ellul analyses the prerequisites for successful persuasion. When Ellul identifies influence on behaviour as the imperative of successful persuasion, he points out that such persuasion must constantly find shortcuts through thoughts and decisions. These shortcuts, in his interpretation, are directed towards finding what he calls a certain central core within the individual that the persuasive message must reach in order to release a mechanism in the unconscious which would then enable an adequate and expected action (Ellul, 1965). This description of the aim and path of the persuasive message to its destination in action, as the only effect of successful persuasion, may represent the most concise and perhaps the most accurate description of the paradigm of motivated political reasoning. Namely, by examining the process of motivated political reasoning at the level of neural activity, this experiment actually maps the path to what Ellul refers to as a central core within the person. It follows from this that deeper insight into neural responses under the influence of motivated political reasoning opens up new perspectives for understanding the entire persuasive process.

In accordance with such perspectives, this research was initiated by questions related to the testing of Ellul's thesis, that is, the examination of the mobilising role of political persuasion. However, the selection of neuroscientific methods for seeking answers to this question and the cognitive process of motivated political reasoning as the foundation for the research design provided answers that pertain to the entire persuasive sequence, as well as guidelines for further research in the field of political marketing effects, which would take as their starting point the examination of the neural bases of this cognitive mechanism. The quantity and quality of the data generated in this study support the conclusion that the mechanism of motivated reasoning is in fact the very mechanism to which Ellul refers - one that must be activated in order to initiate the unconscious mechanism that is crucial for the effect of political persuasion. In this sense, the dominant methodological contribution of this study lies in the fact that the experimental design

was tailored to the examination of the neural background of the key phases of motivated reasoning. Unlike Westen's experiment, for the purpose of testing Ellul's thesis on the sequence of persuasion, the phases of drawing a conclusion about message content and deciding to engage in action or behavioural change were distinguished as separate stages. The results of the research demonstrated that the application of EEG makes it possible to observe participants' neural responses during all phases of motivated reasoning, and that these neural responses almost without exception confirm the premises of motivated political reasoning. This methodological contribution is also one of the key results of this study - based on a research design in which the key elements of motivated political reasoning were translated into different stages from the delivery of the message to the decision-making process, findings were obtained that support the establishment of a new model for researching a wide range of aspects in the field of political marketing and political persuasion.

Starting from the first research question in this study, which concerns how motivated political reasoning influences the effects of political persuasion, the results of this research have shown that insight into the neural background of this cognitive process, based on a model that reflects the key elements of that process and adapts them to the elements of the persuasive sequence, offers answers that are directly applicable in the field of political marketing effects. The answer to the research questions will be presented through the conclusions based on the findings of this study, which refer to the proposed hypothetical framework, as well as through guidelines for further research in the field of political marketing effects that are not directly related to the hypotheses of this study but may be conducted based on the generated data and the model according to which this research was carried out.

Firstly, the results of insight into the neural bases of participants' responses during the presentation of the slides indicate that the participants were continuously under the influence of the mechanism of motivated reasoning. Almost all analyses conducted on the basis of the results of this study confirm the basic hypothesis that the persuasive effects of political messages on attitudes and behaviour are more determined by the emotional relationship with one's own political motives than by the data and arguments contained in those messages. The confirmation of this hypothesis rests primarily on findings confirmed in multiple analyses that changes in the neural activity of participants are not influenced by the content of the message, but predominantly by the mental patterns formed when encountering the first message. Thus, the established emotional-cognitive patterns have shown stability and resistance with respect to the content of the messages, even when that content was in complete opposition to the participants' attitudes. This finding was confirmed both in the analysis of individual emotional-cognitive states and in the analysis of the influence on brainwave activity.

The analysis that included the participants' relationship with the topics also showed that there is no neural reaction to the content of the messages *per se*, but that there is to the topic. This information indicates that upon being presented with the first message in the slide set, participants activate a relationship with the motive they associate with that topic, and from then on they process the messages related to that topic guided by the emotional-cognitive pattern determined by that motive. The neural background of the way participants emotionally and cognitively processed the messages shows in each phase elements of the activated mechanism such as selective attention, resistance to the established emotional-cognitive patterns, orientation toward rationalisation, etc.,

while a particularly significant finding is the increased activity of brainwaves associated with deep affective processing and unconscious internalisation. The fact that the findings did not show significant effects in the context of the difference between the consideration and action phases supports the idea that the influence of emotional-cognitive patterns established under the influence of motivated reasoning applies equally to the impact on attitude and on behaviour.

Secondly, the hypothesis which assumes that the results of Westen's neuroscientific study on the role of motivated reasoning in political decision-making confirm Ellul's thesis on the direct orientation of political persuasion towards provoking desired behaviour through irrational means was likewise confirmed in the findings of several analyses. In Ellul's explanations of the orthopraxy thesis, by irrational action he primarily refers to automatized reactions of individuals, unrelated to rational processing of the content of persuasive messages and to the dissociation between thought and action. The findings of the conducted research, across several analyses, indicate that participants make decisions about engaging in action or drawing conclusions about the messages they have read through automatism determined by the emotional-cognitive pattern established upon encountering the first message. It is important to note here that the aforementioned results of the analysis which included the topic as a factor show that the participants are not influenced even by the content of that first message, but primarily by the topic to which that message refers.

Therefore, certain factors (in this case the topic, and in the case of Westen's experiment the candidate in the election) activate mental and emotional patterns in accordance with the individual's motive, which subsequently determine the way in which that certain individual processes the messages. Since these messages are processed in a manner defined by the aforementioned patterns, rather than through rational, logical, and objective evaluation of the message content, it is clear that the path toward decision-making, whether regarding a conclusion or the initiation of action, lies within the domain of lesser or greater irrationality. In the context of confirming this thesis, a significant finding is that, especially during the initial slides – that is, at the moment of pattern formation – the highest activity is recorded in delta and theta brainwaves, which are associated with internal attention, subconscious activity, and so on, rather than in waves linked to active thinking and wakefulness. In addition, further support for this thesis is provided by the significant finding that from the first message to those relating to the impact on attitude and behaviour, all cognitive and emotional responses decline, so that the participants, at the point of decision-making about an action, find themselves at the lowest level of emotional and cognitive activity. In other words, no finding on neural activity suggests that the participant is making a decision at that moment – the decision has already been made at the moment of pattern establishment in accordance with the motive, and the decline in all emotional and cognitive states at the point of drawing conclusions and making decisions about action indicates that the participant is making those decisions, figuratively speaking (to a greater or lesser extent), in a state of hypnosis induced by that pattern. Thus, in this sense, the findings clearly point to the immediate orientation of the first persuasive message towards provoking the desired behaviour of people through irrational means – the decline in emotional and cognitive responses at the moment of deciding to take action supports the idea that the phases of motivated reasoning are structured in such a way that the manner in which all subsequent messages are processed *clears the path* for the effect of direct orientation. The finding indicating no significant difference between the effect of this mechanism on attitudes and on behaviour does not negate the part of this hypothesis that

emphasises the influence on behaviour alone, but rather points to the need to expand the thesis to also encompass the influence on attitudes.

Thirdly, the findings that confirmed the previously mentioned two hypotheses are such that they simultaneously and clearly confirm the third hypothesis, which relates to the notion that the activation of motivated political reasoning precedes the phases of behavioural and attitudinal change in the propagandistic sequence proposed in Ellul's thesis. However, this hypothesis also refers to the specific positioning of motivated reasoning within the persuasive process. Based on the findings of this research, it is justified to propose a modification of the sequence of persuasion so that, following the emission of the message, the element of motivated reasoning activation appears, followed by the influence on attitudes and behaviour. In such a sequence, the influence on attitudes and behaviour would remain in the same place in the order, and the justification for such a position is also reflected in the findings of this study, which indicate that there is no significant effect of the order of influence on attitude versus behaviour, nor any significant difference in participants' neural responses to these two elements. In the context of Ellul's sequence, it is clear that he speaks primarily in terms of the success of propaganda, but also of the division between thought and action. However, the findings of this study suggest that this division applies equally to the influence on attitudes – that attitudes, too, are formed in accordance with the emotional and cognitive relationship of the motive towards the topic or phenomenon with which they are associated, just as is the case with behavioural influence. If, however, we consider only the aspect of the effectiveness of political persuasion in the sense that the relevant outcome of persuasion is not what a person thinks but what they do, even in that case, the influence on attitudes – according to the findings of this study – should not necessarily be dismissed as irrelevant in the context of effects. This refers to the effect of the reinforcement of attitudes under the influence of motivated reasoning, which in a “two-step” manner can also influence behaviour – attitudes strengthened under the influence of motivated reasoning, when confronted with each subsequent message related to that attitude, are expected to produce a stronger effect of motivated reasoning, which directly contributes to a stronger influence on behaviour.

Fourthly, the hypothesis which posits that the phases of behavioural change and eventual attitudinal change represent a rationalisation of the individual's emotional relation towards their political motives has been confirmed on two levels. The first level pertains to the fact that this hypothesis aligns with the paradigm of motivated political reasoning, and all findings on participants' neural responses indicate that the participants, from the initial message to the point of making decisions regarding attitude and behaviour, were consistently under the influence of this cognitive mechanism throughout all stages. The second level concerns the specific findings of neural responses to the message referring to rationalisation - using the initial message as a reference point, the only slide that did not display significant differences in relation to that message was the slide containing the rationalisation message. This indicates that the rationalisation of the initial message is also reflected at the level of neural activity. The decline in cognitive states directly associated with emotions during the messages related to attitude formation and the decision to take action also suggests that rationalisation of the emotional relationship has already taken place, and that in these stages the individual demonstrates a neutral emotional - cognitive response at the neural level. This certainly does not imply that the individual is in fact neutral or rational at that stage, but rather that, at the emotional-cognitive level, the conflict generated by

encountering messages opposing the participant's stance has been resolved following the rationalisation phase. Therefore, the analysis of participants' neural reactions under the influence of motivated reasoning indicates that, in addition to the formation of an emotional-cognitive pattern in accordance with the relationship between the message and the motive, rationalisation represents a key element of this process. Viewed within the context of examining the mobilising role of political persuasion, the way in which an individual rationalises information contrary to the view they support plays a crucial role in their decision to engage in action, that is, to change or maintain their behaviour.

The abundance of data generated in this study and the possibility of conducting various analyses based on that data confirm the complex nature of message processing under the influence of motivated political reasoning. One of the important findings of the analyses conducted is that the neural background of polarisation is reflected in the change in the dynamics of emotional-cognitive patterns in relation to the topic, and not in relation to the content of the messages associated with that topic. Accordingly, the findings of participants' neural activity demonstrated the dominant role of message structure, that is, whether the message served the function of rationalisation, contradiction, or a call for drawing a conclusion or engaging in action. Thus, regardless of the content of these messages, and even regardless of whether participants agreed with their content, the established reaction pattern remained stable and resistant. This pattern is influenced only by a change in topic, that is, by the activation of a new motive. Differences related to topic confirm that, through insight into participants' neural activity, it is possible to detect different intensities and types of relationships to different individual motives. This finding is particularly significant for the field of studying the effects of political marketing, as it highlights the importance of understanding the neural background of established patterns and responses to message structure in predicting the effects of political persuasion and managing those effects.

Another significant conclusion that can be drawn from all the analyses of the generated data pertains to the fact that, in the context of examining the mobilising role of political persuasion, it is essential not only to know the individual's motive but also to understand how they establish the emotional-cognitive response pattern in relation to that motive. This suggests that, at the level of neural activity, the individual does not essentially make the decision to engage in action at the moment they are confronted with a call to action, but rather at the moment of the first encounter with the message associated with that call. Differences in behavioural data and neural responses concerning certain aspects of this research also point to this conclusion, as well as to the importance of insight into neural activity which may provide answers different from those that individuals express in self-report. This also leads to the conclusion that although insight into the neural background of participants' responses offers answers that cannot be reached through traditional methods, it is crucial to understand that these answers are not direct and cannot be interpreted outside the context of all relevant factors.

What Panksepp (1998) refers to as *the electrical language of the brain* certainly cannot be translated into a direct answer to the questions we pose through the application of neuroscientific methods in the field of political marketing effects, but it enables us to observe participants' reactions on a level that cannot be accessed through traditional methods. This means that what Ellul calls *irrational* – when translated from the electrical language of the brain – provides more

specific insights into the nature of that irrationality. However, the quality and accuracy of that “translation” depend on the quantity and type of data generated in the neuroscientific research, as well as on the level of necessary expertise for accurate interpretation of that data. In the case of this study, knowledge from the field of political communication – that is, political persuasion – made it possible to design a research model through which an abundance of data was generated in relation to all relevant phases of motivated political reasoning. And it is precisely this fact that demonstrates the vast potential of the interdisciplinary field of neuroscience and political communication, that is, political marketing.

The final conclusion of this study is that the findings largely confirmed Ellul’s thesis, while also indicating that the way Ellul interprets the influence on an individual’s behaviour may likewise be applicable to the influence on attitudes. The key contribution of the overall findings of this study is reflected in the proposal to amend the persuasive sequence by adding the element of motivated reasoning – that is, the manner in which the broadcast message triggers the activation of this cognitive mechanism – and in the adjustment of the order of its elements. The resistance of the emotional-cognitive pattern formed under the influence of the relationship between the message and the individual’s motive, as well as the decline in all emotional and cognitive responses from the moment this pattern is established until the moment of decision-making, indicates not only the key importance of motivated reasoning for the effects of political persuasion, but also, metaphorically speaking, that the influence of this mechanism has an almost hypnotic effect on the individual. Westen described the political brain as the emotional brain, starting from the findings of the experiment he conducted with his colleagues, which point to the crucial role of emotions in the activation of the mechanism of motivated political reasoning. However, the analysis of participants’ neural responses during the activation of the motivated reasoning mechanism – in the context of the persuasive sequence – showed, through clearly observable emotional-cognitive patterns, that even the activation of emotions predominantly depends on the way the individual perceives the relationship between the message and their motive. In accordance with this, it may be concluded that, in the context of political marketing effects, influence on the behaviour and attitudes of individuals fundamentally depends on the influence on their motives or on the relationship between the message and those motives – that is, only a change in motive or in the relationship between message and motive leads to a change in attitudes and behaviour. From this follows the legitimacy of raising the question – is the political brain in fact a *motivational brain*?

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APPENDICES

Appendix 1. Content of the slides that were presented to the participants during the experiment (both versions for each topic)

TOPIC- LITHIUM

PRO LITHIUM VERSION

SLIDE 1

In 2004, the company Rio Tinto discovered the mineral jadarite - a combination of lithium and boron - in the vicinity of Loznica, and it is estimated that there are over 150 million tonnes of this ore in the Jadar Valley. The government has presented official estimates stating that the opening of this mine would enable annual revenues for Serbia exceeding 10 billion euros, which would lead to an extraordinary increase in gross domestic product of even over 15%. The President of Serbia, Aleksandar Vučić, stated that the opening of this mine and a processing facility for jadarite would raise the living standard of all our citizens and that this is an opportunity Serbia must not miss. He also added that this project would be completely safe for the environment and for human health.

SLIDE 2

In the meantime, it was discovered that there exists a memorandum which the Government concealed from the public, and in which concern was expressed regarding the consequences that the implementation of this project would have on the environment and human health. The memorandum contains research conducted by a group of independent scientists, which indicates that this project could cause an ecological disaster, with particular emphasis placed on the possibility of lithium entering the water, thereby seriously endangering the health of more than 2 million people. This memorandum sets out a recommendation that the lithium exploitation project should be suspended until further notice due to all of the above.

SLIDE 3

The company Rio Tinto provided assurances that the environmental damage would be minimal and that it would not be greater than in any other mining project. After receiving this memorandum, the Government engaged its own experts to examine the data presented, and they concluded that, through the development of new technologies, this project could be carried out in a way that does not endanger the environment and human health. Government representatives once again emphasised the enormous economic benefit that all citizens of Serbia would gain from this project.

SLIDE 4

Evaluate, on a scale from 1 to 4, the extent to which the Government's position is inconsistent with the facts.

- 1 – Completely inconsistent
 - 2 – Largely inconsistent
 - 3 – Largely consistent
 - 4 – Completely consistent
-

SLIDE 5

The Government has proposed holding a referendum on this issue. Would you support the holding of this referendum with your signature in order to support the opening of the jadarite mine?

YES

NO

ANTI – LITHIUM VERSION

SLIDE 1

In 2004, the company Rio Tinto discovered the mineral jadarite—a combination of lithium and boron—in the vicinity of Loznica, and it is estimated that there are over 150 million tonnes of this ore in the Jadar Valley. Although the Government presented official estimates stating that the opening of this mine would enable annual revenues for Serbia exceeding 10 billion euros and an increase in the standard of living for citizens, studies by renowned economists show that the majority of the profit would in fact go to the company Rio Tinto, and that each citizen of Serbia would receive only around 2 euros annually from it. Furthermore, despite assurances regarding the safety of this project, prominent environmental scientists from Serbia and Europe have expressed concern about the possibility of an ecological disaster, including the risk that water contaminated with lithium could reach all watercourses in the mining region, from where it could spread into watercourses throughout Serbia.

SLIDE 2

An independent group of experts from the University of Belgrade conducted a study, which will soon be published in one of the most prestigious European scientific journals, indicating that the danger to the environment and human health could be entirely avoided through the application of new technologies that are already available. This study states that the criticisms concerning the harmful presence of lithium in water are not scientifically grounded. Through the application of new technologies, it is possible to prevent the entry of harmful quantities of lithium into the water,

and the minimal amount that would reach the water does not in any way endanger human health.

SLIDE 3

Environmentalists who oppose the lithium mining project are familiar with the results of this study, but they questioned the research methodology on which the study relies, also suggesting that the Government financially supported this study and its biased results. They claim that the excavation of such a large quantity of lithium is impossible without causing enormous damage to the environment, and that the danger of exposing the population to lithium that would enter the drinking water is well known. They strongly rejected the notion that any measures could prevent environmental damage and questioned the existence of the allegedly already available technology, which clearly has not yet been used anywhere. They also rejected the possibility that the risk to human health could be avoided, stating that even a minimal dose of lithium in water causes serious health consequences.

SLIDE 4

Evaluate the extent to which the position of the environmentalists is inconsistent with the facts.

- 1 – Completely inconsistent
 - 2 – Largely inconsistent
 - 3 – Largely consistent
 - 4 – Completely consistent
-

SLIDE 5

Environmentalists believe that the majority of people would vote against this project in a referendum. Would you support the holding of such a referendum with your signature in order to prevent the lithium exploitation project?

YES
NO

TOPIC – KOSOVO

PRO-GOVERNMENT VERSION

SLIDE 1

According to our Constitution, Kosovo is a part of Serbia, and the protection of our legitimate interests in Kosovo is a matter of safeguarding the territorial integrity and sovereignty of Serbia. “We will never recognise the independence of Kosovo,” emphasised the President of Serbia, Aleksandar Vučić, and added that “the nail in the coffin of Kosovo’s independence was hammered in with the establishment of borders between Serbs and Serbs before 2012.” He also added that this government, through all the agreements it has signed, has most strongly defended and protected our remaining legitimate national interests in Kosovo, after they had been surrendered by the previous government. In addition, he emphasised that he will continue to insist, as firmly as possible, on the prompt establishment of the Community of Serbian Municipalities in accordance with the provisions of the Brussels Agreement, for the purpose of protecting the rights of our citizens in Kosovo.

SLIDE 2

Opposition leaders warned that when President Vučić says that a “border between Serbs and Serbs” has been established, he is unconstitutionally referring to administrative lines as borders and thereby practically recognising that Kosovo is an independent state. They emphasised that this is in accordance with the so far unpublished parts of the Brussels Agreement, which was signed by the current government, and in which Kosovo is unequivocally treated as an independent state. At a press conference, they presented the full text of the Brussels Agreement, which reveals that the Community of Serbian Municipalities has powers at the level of a cultural and artistic association, and that through this agreement Serbia relinquished its remaining institutions in Kosovo and recognised the legal system of an independent Kosovo over its entire territory.

SLIDE 3

The head of the Government Office for Kosovo and Metohija clearly emphasised that when President Vučić speaks of “borders between Serbs and Serbs”, he is speaking metaphorically about the effects of the administrative lines established during the previous government, and not about actual borders. He also stated that the document presented by the opposition leaders is not the text of the Brussels Agreement, but rather the text of an analysis of that agreement prepared by a small group of Members of the European Parliament who are closely cooperating with the opposition.

In addition, he denied that any agreement was signed during the term of this government by which Serbia directly or indirectly recognises the independence of Kosovo, and pointed out that both President Vučić and all other official representatives of this government have always clearly emphasised that the recognition of an independent Kosovo is not an option and that this is a clear red line that must not be crossed. He added that the Community of Serbian Municipalities is key to protecting the rights and security of our citizens in Kosovo, and that the Albanian side has been avoiding its formation for more than a decade precisely because they are aware of how strongly it protects the legitimate interests of Serbia.

SLIDE 4

Evaluate the extent to which the position of the Government and President Vučić is inconsistent with the stated facts (1–4)

- 1 – Completely inconsistent
 - 2 – Largely inconsistent
 - 3 – Largely consistent
 - 4 – Completely consistent
-

SLIDE 5

The government has announced a rally in support of their newly announced phase of political and diplomatic struggle for our legitimate national interests in Kosovo. Would you participate in that rally and thereby express support for this government's policy on Kosovo?

YES

NO

ANTI-GOVERNMENT VERSION

SLIDE 1

According to our Constitution, Kosovo is a part of Serbia, and the protection of our legitimate interests in Kosovo is a matter of safeguarding the territorial integrity and sovereignty of Serbia. Opposition members of parliament issued a joint open letter in which they stated that all the agreements signed and accepted by the current government—from the Brussels Agreement to the French-German proposal—represented a surrender of our legitimate national interests in Kosovo. They specifically pointed to parts of the Brussels Agreement that confirm this. They stated that all these agreements implied a step-by-step indirect recognition of the independence of Kosovo and warned that the Kosovo policy of this government is also leading towards explicit recognition of independence.

SLIDE 2

The President of the National Assembly, Ana Brnabić, revealed at a press conference the section of the Brussels Agreement to which the opposition MPs are referring, and demonstrated that nowhere does it state that Serbia is required to recognise the independence of Kosovo. She emphasised that, unlike the public, the members of parliament had the opportunity to see the full content of the signed agreements with Priština and to confirm that, by signing these agreements, Serbia in no way accepted the independence of Kosovo, and that this is a deliberately propagated lie. In addition, President Vučić, as well as all representatives of this government who were involved in the process of negotiating and signing these agreements, have publicly and unequivocally stated that recognition of independence is a red line they will never cross.

SLIDE 3

Experts in international law published an analysis of these agreements which indicates that Serbia does not even need to be explicitly required to recognise the independence of Kosovo, since the mere acceptance of agreements in which Kosovo is treated as independent constitutes de facto recognition of independence. Accordingly, they stressed that the statements by government representatives that recognition of Kosovo's independence is a red line are merely demagoguery for domestic use. They stated that this line was de facto crossed the moment Serbia signed the Brussels Agreement, which acknowledges the judiciary of independent Kosovo throughout its entire territory, that is, when the institutions of the Serbian state were abolished even in the north of Kosovo.

SLIDE 4

Evaluate the extent to which the positions of the opposition members of parliament are inconsistent with the stated facts.

- 1 – Completely inconsistent
 - 2 – Largely inconsistent
 - 3 – Largely consistent
 - 4 – Completely consistent
-

SLIDE 5

The opposition has announced a protest demanding the annulment of all agreements between Belgrade and Priština that were signed by the current government. Would you join this protest and thereby raise your voice against this government's Kosovo policy?

YES
NO

TOPIC – CORRUPTION

GOVERNMENT FIGHTS CORRUPTION VERSION

SLIDE 1

Experts agree that corruption not only undermines the economic development of a country, but also represents one of the main causes of threats to democracy, violations of human rights, and general instability within a country. The President of Serbia, Aleksandar Vučić, announced a strong fight against corruption and stated that no sector would be spared. In response to the protests following the collapse of the canopy, he stated that a detailed investigation showed that the canopy collapsed due to human error and poor construction, and not due to corruption, and that the responsible ministers had already assumed political responsibility by resigning. He announced that in the fight against corruption, even individuals from the very top of the government who, in the previous period, “profited at the expense of the state or violated the law in any way” would not be spared.

SLIDE 2

An independent international organisation, whose work focuses on combating government corruption in Europe, came into possession of an unpublished part of the investigative report concerning the reconstruction of the canopy at the Railway Station building in Novi Sad. In the section of the report they disclosed, it is suggested that the “human errors” and “poor construction” were the result of bribery involving government officials who were engaged in this project, meaning that the cause of the tragedy was corruption. Although student and civil protests have been ongoing for months across Serbia, and one of the students’ demands is the publication of the documentation related to the reconstruction of the Railway Station in Novi Sad, this document remains hidden from the public, and this international organisation has called on the Government to publish the full investigation report.

SLIDE 3

President Aleksandar Vučić personally published the report and emphasised that it was the full text of that report, which confirms his earlier statements that the tragedy was caused by human error and negligence, and not by corruption. When asked about the section of the report released by the international organisation, which refers to evidence of bribery and corruption, he pointed to the fact that the page numbers in the report he presented are sequential. He stressed that he had

presented the full report and that nothing had been removed from it, and that the tragedy in Novi Sad is being misused for political purposes.

SLIDE 4

Evaluate the extent to which the statements of President Aleksandar Vučić are inconsistent with the stated facts. (1–4)

- 1 – Completely inconsistent
 - 2 – Largely inconsistent
 - 3 – Largely consistent
 - 4 – Completely consistent
-

SLIDE 5

The Serbian Progressive Party (SNS) has announced a rally in support of Vučić's fight against corruption, at which he will once again emphasise that what happened in Novi Sad was a tragic accident, no different from similar accidents that happen around the world, and not the result of corruption. Would you attend this rally?

YES
NO

GOVERNMENT GENERATES CORRUPTION VERSION

SLIDE 1

Experts agree that corruption not only undermines the economic development of a country, but also represents one of the main causes of threats to democracy, violations of human rights, and general instability within a country. Students and citizens have launched anti-corruption protests across the country, and one of their demands is the initiation of an investigation to determine the responsibility of all those involved in the corruption related to the reconstruction of the Railway Station in Novi Sad, which resulted in the loss of 15 lives. Citizens and students pointed out that the tragedy in Novi Sad is proof that the level of corruption in Serbia is so high that people are paying for it with their lives.

SLIDE 2

A group of experts from the Faculty of Civil Engineering in Belgrade conducted an extensive investigation into what happened at the Railway Station building in Novi Sad. At a press conference announcing the publication of their analysis, they presented the key conclusion that human error and an unfortunate set of circumstances led to the collapse of the canopy, and not

corruption. They praised the ministers who resigned as an act of taking political responsibility for the tragedy, but added that a criminal investigation against them is unnecessary in light of the findings of their investigation.

SLIDE 3

Following this press conference, the student assembly challenged the credibility of this investigation, as the members of the expert working group from the Faculty of Civil Engineering were directly selected by the Government. The students pointed out that an investigation by independent journalists shows that these experts would have risked losing their jobs had they presented different findings. The assembly stated that this investigation is the result of government pressure on the experts who conducted it, rather than their actual research into the reconstruction of the Railway Station in Novi Sad. In addition, they pointed out that other relevant engineering faculties were excluded from participating in the investigation, which was confirmed by the Dean of the Faculty of Civil Engineering in Belgrade.

SLIDE 4

Evaluate the extent to which the students' statement is inconsistent with the stated facts. (1–4)

- 1 – Completely inconsistent
 - 2 – Largely inconsistent
 - 3 – Largely consistent
 - 4 – Completely consistent
-

SLIDE 5

For months, students have been organising protests throughout Serbia, and more and more citizens are joining them. They have called on citizens to show their support for the protests against government corruption by making noise from their windows every evening at 7:30 p.m. Would you join this action or the protests?

YES
NO

TOPIC – EAST/WEST

PRO – WESTERN VERSION

SLIDE 1

Serbia is in the process of European integration, while at the same time maintaining traditionally close relations with Russia. However, pro-European opposition leaders have pointed out that Serbia now has an opportunity to join the European Union, which would bring multiple benefits to our country in the areas of economy, security, and culture, and that an unambiguous foreign policy orientation towards the West is in Serbia's highest interest. In order to accelerate the process of European integration, it is nevertheless necessary for Serbia to align with the foreign policy of the European Union, which would also mean introducing sanctions against Russia. As pro-European opposition leaders have stated, Serbia belongs in the West, not in the East, and we must take all necessary steps to join the European Union as soon as possible.

SLIDE 2

A part of the opposition that supports Serbia's foreign policy orientation towards Russia has obtained confidential documents from European Union institutions in Brussels, which state that Serbia's membership in the European Union is not part of the European Union's strategy for the next decade. Despite statements by European Union officials in which they express support for Serbia's European path, their words do not match their actions, and this document clearly shows that Serbia's membership is not a priority for the European Union in the next ten years, and that Serbia is not even mentioned in the agenda. Therefore, introducing sanctions against Russia would only harm Serbia's interests, especially in light of the fact that Russia prevents the recognition of Kosovo's independence through its vote in the United Nations Security Council.

SLIDE 3

Although this document is printed on European Union letterhead and bears the official seal of European Union institutions at the bottom, representatives of the pro-European opposition claim that the document was drafted by a small number of European parliamentarians, and that it is not an official document of the European Parliament, pointing to the absence of any signature or proclamation that would indicate it is an official memorandum of the European Union strategy. They warned that this document has been falsely presented to the public as an official European

Union document in order to reduce citizens' support for European integration, and that Russian interests are behind the publication of this document. They called on citizens to trust the official announcements from Brussels, and not a Russian propaganda document. They also pointed to concrete steps that have already been taken towards Serbia's membership in the European Union and emphasised that Serbia belongs to Europe both geographically and in terms of values, and that membership in the European Union means a better life for our citizens.

SLIDE 4

Evaluate the extent to which the statements of the pro-European opposition are inconsistent with the stated facts. (1–4)

- 1 – Completely inconsistent
 - 2 – Largely inconsistent
 - 3 – Largely consistent
 - 4 – Completely consistent
-

SLIDE 5

The leaders of the pro-European opposition have already collected a large number of signatures from citizens of Serbia expressing support for full membership of our country in the European Union. Would you sign this petition to support Serbia's membership in the European Union and a foreign policy orientation towards the West?

YES
NO

PRO – EASTERN VERSION

SLIDE 1

Serbia is in the process of European integration, while at the same time maintaining traditionally close relations with Russia. Regarding the issue of introducing sanctions against Russia, members of parliament who oppose such a decision emphasised that introducing sanctions against Russia would represent an attack on the fraternal and traditional ties between our country and Russia. They pointed out to the public that the future of Serbia lies in alliance with Russia, with which we share history, culture, religion, and origin. They also reminded that Russia is the guarantor of the non-recognition of Kosovo's independence in the United Nations Security Council. The introduction of sanctions against Russia would be extremely harmful to our national interests.

SLIDE 2

Documents from the highest official circles of the Kremlin have leaked to the media in Serbia, indicating that, with regard to its position in the negotiations on ending the war in Ukraine, Russia no longer has an interest in using its veto in the United Nations Security Council to prevent independent Kosovo from becoming a full member of the United Nations. According to the statements in this document, Russia is prepared to abandon the protection of Serbian national interests in Kosovo, and it is assessed that any other decision would only be a burden to Russia in the context of its relations with the United States of America. The document states that the Kremlin respects Russia's traditional ties with Serbia, but not if that is to the detriment of Russia's interests, which is the case in the context of Russia's current position in the international arena. Pro-European opposition leaders pointed out that this document shows that if we do not introduce sanctions against Russia, we will not thereby protect our national interests in Kosovo, but will only cause enormous economic damage to Serbia by undermining relations with the European Union.

SLIDE 3

The Russian ambassador to Serbia strongly denied these claims and the authenticity of this document. He stated that although the document was printed on the memorandum of Kremlin institutions, it represents only the views of a minority of Putin's advisers, and not necessarily a position that he himself would adopt. "Russia is defending its legitimate national interests in Ukraine, but this in no way affects our fraternal relations with Serbia or our position on the independence of Kosovo," said the Russian ambassador, and emphasised that Russia will never recognise the independence of Kosovo.

SLIDE 4

Evaluate the extent to which the positions of the Russian ambassador are inconsistent with the stated facts. (1–4)

- 1 – Completely inconsistent
 - 2 – Largely inconsistent
 - 3 – Largely consistent
 - 4 – Completely consistent
-

SLIDE 5

In response to pressure from the European Union for Serbia to introduce sanctions against Russia, the Government stated that it will decide on this issue according to the majority opinion of our citizens, which will be determined through a petition that will be published on the Government's

website. Would you vote against the introduction of sanctions against Russia by signing this petition?

YES

NO

Appendix 2. Participants' demographic data and pre-testing position on all four topics

Rb	Pol	Kat. god.	God.	Obrazovanje	Stav i ocena po pitanju iskopavanja litijuma	Stav i ocena po pitanju Kosova	Stav i ocena po pitanju Istoka/Zapada	Stav i ocena po pitanju korupcije	Zanimanje
1	M	41-60	50	Srednje	Podržava	Vlast brani	Ka Istoku	Vlast izvor korupcije	medicinski tehničar
2	M	41-60	42	Visoko	Ne podržava	Vlast ne brani	Ka Zapadu	Vlast izvor korupcije	menadžer
3	Ž	20-40	27	Srednje	Podržava	Vlast brani	Ka Zapadu	Vlast se bori protiv	administrativni radnik
4	M	20-40	34	Visoko	Ne podržava	Vlast ne brani	Ka Zapadu	Vlast izvor korupcije	menadžer prodaje
5	Ž	41-60	54	Srednje	Podržava	Vlast ne brani	Ka Istoku	Vlast se bori protiv	administrativni radnik
6	Ž	41-60	53	Srednje	Ne podržava	Vlast brani	Ka Istoku	Vlast izvor korupcije	prodavac
7	Ž	20-40	39	Srednje	Ne podržava	Vlast ne brani	Ka Zapadu	Vlast izvor korupcije	moderator fotografije
8	M	20-40	29	Srednje	Ne podržava	Vlast ne brani	Ka Zapadu	Vlast izvor korupcije	menadžer
9	Ž	41-60	49	Visoko	Podržava	Vlast brani	Ka Istoku	Vlast se bori protiv	knjigovoda
10	Ž	41-60	52	Visoko	Podržava	Vlast brani	Ka Zapadu	Vlast se bori protiv	radnica u fotokopirnici
11	Ž	20-40	26	Visoko	Ne podržava	Vlast ne brani	Ka Istoku	Vlast se bori protiv	konobarica
12	M	41-60	41	Srednje	Ne podržava	Vlast ne brani	Ka Istoku	Vlast izvor korupcije	konobar
13	M	41-60	55	Srednje	Podržava	Vlast brani	Ka Zapadu	Vlast se bori protiv	ekonomski tehničar
14	M	20-40	38	Visoko	Podržava	Vlast brani	Ka Istoku	Vlast se bori protiv	komercijalista
15	Ž	41-60	56	Srednje	Ne podržava	Vlast brani	Ka Istoku	Vlast izvor korupcije	trgovac
16	Ž	20-40	36	Visoko	Ne podržava	Vlast ne brani	Ka Istoku	Vlast izvor korupcije	nastavnica srpskog jezika
17	Ž	20-40	40	Visoko	Podržava	Vlast brani	Ka Zapadu	Vlast se bori protiv	turistički radnik
18	M	41-60	42	Visoko	Podržava	Vlast brani	Ka Zapadu	Vlast se bori protiv	menadžer prodaje
19	M	20-40	29	Visoko	Ne podržava	Vlast ne brani	Ka Istoku	Vlast se bori protiv	asistent na fakultetu
20	M	20-40	31	Srednje	Podržava	Vlast ne brani	Ka Zapadu	Vlast izvor korupcije	zubni tehničar
21	Ž	20-40	23	Srednje	Ne podržava	Vlast ne brani	Ka Istoku	Vlast izvor korupcije	radnica u butiku
22	Ž	20-40	33	Visoko	Podržava	Vlast brani	Ka Zapadu	Vlast se bori protiv	administrativni radnik
23	Ž	41-60	49	Visoko	Podržava	Vlast brani	Ka Istoku	Vlast se bori protiv	medicinska sestra
24	M	20-40	35	Srednje	Podržava	Vlast brani	Ka Zapadu	Vlast se bori protiv	radnik u pozorištu
25	M	41-60	54	Visoko	Ne podržava	Vlast ne brani	Ka Istoku	Vlast izvor korupcije	komercijalista

Appendix 3. Descriptives for selected analysis

Repeated Measures ANOVA SLIDExEMOTIVxStimulusPolarity

Descriptive

Contrast Tables

Simple Contrast - SLIDE

Comparison	Estimate	SE	df	t	p
2 Contradiction - 1 Statement	-1.199	0.536	312	-2.235	0.026
3 Rationalization - 1 Statement	-0.883	0.536	312	-1.645	0.101
4 Consideration - 1 Statement	-1.369	0.536	312.000000000000006	-2.553	0.011
5 Action - 1 Statement	-2.255	0.536	312	-4.205	< .001

Note. Results are averaged over the levels of: Pro/Contra version, EMOTIV

Simple Contrast - SLIDE * EMOTIV

Comparison	Estimate	SE	df	t	p
1	-1.703	0.854	1363.703	-1.993	0.046
2	-2.068	0.854	1363.703	-2.421	0.016
3	-1.294	0.854	1363.703	-1.514	0.130
4	-3.219	0.854	1363.703	-3.768	< .001
5	0.370	1.705	530.919	0.217	0.828
6	-1.265	1.762	597.868	-0.718	0.473
7	-0.185	1.762	597.868	-0.105	0.916
8	-1.299	1.762	597.868	-0.737	0.461
9	-2.954	1.762	597.868	-1.676	0.094
10	-22.291	1.705	530.919	-13.075	< .001
11	-25.327	1.762	597.868	-14.372	< .001
12	-25.906	1.762	597.868	-14.700	< .001

Simple Contrast - SLIDE * EMOTIV

Comparison	Estimate	SE	df	t	p
13	-26.557	1.762	597.868	-15.070	< .001
14	-26.488	1.762	597.868	-15.030	< .001
15	-5.400	1.705	530.919	-3.167	0.002
16	-6.097	1.762	597.868	-3.460	< .001
17	-5.522	1.762	597.868	-3.134	0.002
18	-6.618	1.762	597.868	-3.756	< .001
19	-7.281	1.762	597.868	-4.132	< .001
20	-15.529	1.705	530.919	-9.109	< .001
21	-15.684	1.762	597.868	-8.899	< .001
22	-15.124	1.762	597.868	-8.582	< .001
23	-15.086	1.762	597.868	-8.560	< .001
24	-15.764	1.762	597.868	-8.945	< .001
25	-17.898	1.705	530.919	-10.498	< .001
26	-17.866	1.762	597.868	-10.138	< .001
27	-17.238	1.762	597.868	-9.781	< .001
28	-18.110	1.762	597.868	-10.276	< .001
29	-18.574	1.762	597.868	-10.540	< .001

Note. Results are averaged over the levels of: Pro/Contra version

Simple Contrast - Pro/Contra version * SLIDE

Comparison	Estimate	SE	df	t	p
1	1.320	2.233	94.433	0.591	0.556
2	-0.734	0.759	312.000	-0.968	0.334
3	-0.344	2.233	94.433	-0.154	0.878
4	0.146	0.759	312.000	0.192	0.847
5	-0.591	2.233	94.433	-0.265	0.792
6	0.372	0.759	312.000	0.491	0.624
7	-1.791	2.233	94.433	-0.802	0.424
8	-0.874	0.759	312.000	-1.153	0.250
9	-2.317	2.233	94.433	-1.038	0.302

Note. Results are averaged over the levels of: EMOTIV

Simple Contrast Coefficients - Pro/Contra version * SLIDE

Pro/Contra version	SLIDE	Comparison 1	Comparison 2	Comparison 3	Comparison 4	Comparison 5	Comparison 6	Comparison 7	Comparison 8	Comparison 9
0	1 Statement	-1	-1	-1	-1	-1	-1	-1	-1	-1
1		1	0	0	0	0	0	0	0	0
0	2 Contradiction	0	1	0	0	0	0	0	0	0
1		0	0	1	0	0	0	0	0	0
0	3 Rationalization	0	0	0	1	0	0	0	0	0
1		0	0	0	0	1	0	0	0	0
0	4 Consideration	0	0	0	0	0	1	0	0	0
1		0	0	0	0	0	0	1	0	0
0	5 Action	0	0	0	0	0	0	0	1	0
1		0	0	0	0	0	0	0	0	1

Repeated Measures ANOVA SLIDExEEGxStimulusPolarity

Descriptives

Contrast Tables

Simple Contrast - SLIDE

Comparison	Estimate	SE	df	t	p
2 Contradiction - 1 Statement	-0.860	0.213	312	-4.034	< .001
3 Rationalization - 1 Statement	-0.839	0.213	312	-3.934	< .001
4 Consideration - 1 Statement	-1.260	0.213	312	-5.906	< .001
5 Action - 1 Statement	-1.346	0.213	312	-6.312	< .001

Note. Results are averaged over the levels of: Pro/Contra version, EEG

Simple Contrast - SLIDE * EEG

Comparison	Estimate	SE	df	t	p
1	-2.512	0.292	922.733	-8.592	< .001
2	-2.651	0.292	922.733	-9.069	< .001
3	-2.808	0.292	922.733	-9.604	< .001
4	-2.809	0.292	922.733	-9.608	< .001
5	-6.513	0.421	509.288	-15.471	< .001
6	-7.408	0.461	668.008	-16.061	< .001
7	-7.467	0.461	668.008	-16.189	< .001
8	-7.642	0.461	668.008	-16.569	< .001
9	-7.482	0.461	668.008	-16.221	< .001
10	-8.933	0.421	509.288	-21.219	< .001
11	-8.992	0.461	668.008	-19.496	< .001
12	-9.104	0.461	668.008	-19.737	< .001
13	-9.657	0.461	668.008	-20.937	< .001
14	-9.878	0.461	668.008	-21.416	< .001
15	-10.188	0.421	509.288	-24.201	< .001
16	-10.412	0.461	668.008	-22.574	< .001
17	-10.303	0.461	668.008	-22.338	< .001
18	-10.757	0.461	668.008	-23.322	< .001
19	-10.852	0.461	668.008	-23.529	< .001
20	-12.615	0.421	509.288	-29.964	< .001
21	-13.227	0.461	668.008	-28.677	< .001
22	-12.920	0.461	668.008	-28.012	< .001
23	-13.683	0.461	668.008	-29.666	< .001
24	-13.961	0.461	668.008	-30.267	< .001

Note. Results are averaged over the levels of: Pro/Contra version

Simple Contrast - Pro/Contra version * SLIDE * EEG

Comparison	Estimate	SE	df	t	p
1	0.486	1.058	164.174	0.460	0.646
2	-1.809	0.413	922.733	-4.376	< .001
3	-2.728	1.058	164.174	-2.580	0.011
4	-2.503	0.413	922.733	-6.054	< .001
5	-2.313	1.058	164.174	-2.187	0.030
6	-2.528	0.413	922.733	-6.115	< .001
7	-2.601	1.058	164.174	-2.460	0.015
8	-3.287	0.413	922.733	-7.952	< .001
9	-1.844	1.058	164.174	-1.743	0.083
10	-6.452	0.595	509.288	-10.837	< .001

Simple Contrast - Pro/Contra version * SLIDE * EEG

Comparison	Estimate	SE	df	t	p
11	-6.088	1.058	164.174	-5.757	< .001
12	-6.813	0.652	668.008	-10.445	< .001
13	-7.516	1.058	164.174	-7.108	< .001
14	-7.109	0.652	668.008	-10.898	< .001
15	-7.339	1.058	164.174	-6.940	< .001
16	-7.274	0.652	668.008	-11.152	< .001
17	-7.524	1.058	164.174	-7.115	< .001
18	-7.646	0.652	668.008	-11.721	< .001
19	-6.832	1.058	164.174	-6.460	< .001
20	-8.978	0.595	509.288	-15.079	< .001
21	-8.402	1.058	164.174	-7.945	< .001
22	-8.559	0.652	668.008	-13.121	< .001
23	-8.940	1.058	164.174	-8.454	< .001
24	-8.738	0.652	668.008	-13.395	< .001
25	-8.983	1.058	164.174	-8.495	< .001
26	-9.106	0.652	668.008	-13.961	< .001
27	-9.722	1.058	164.174	-9.193	< .001
28	-9.506	0.652	668.008	-14.574	< .001
29	-9.763	1.058	164.174	-9.232	< .001
30	-10.288	0.595	509.288	-17.279	< .001
31	-9.603	1.058	164.174	-9.081	< .001
32	-10.196	0.652	668.008	-15.630	< .001
33	-10.143	1.058	164.174	-9.591	< .001
34	-10.004	0.652	668.008	-15.337	< .001
35	-10.116	1.058	164.174	-9.566	< .001
36	-10.114	0.652	668.008	-15.505	< .001
37	-10.914	1.058	164.174	-10.321	< .001
38	-10.311	0.652	668.008	-15.807	< .001
39	-10.908	1.058	164.174	-10.315	< .001
40	-12.667	0.595	509.288	-21.276	< .001
41	-12.076	1.058	164.174	-11.420	< .001
42	-13.099	0.652	668.008	-20.081	< .001
43	-12.869	1.058	164.174	-12.169	< .001
44	-12.567	0.652	668.008	-19.266	< .001
45	-12.787	1.058	164.174	-12.091	< .001
46	-13.069	0.652	668.008	-20.035	< .001
47	-13.812	1.058	164.174	-13.060	< .001
48	-13.507	0.652	668.008	-20.707	< .001
49	-13.927	1.058	164.174	-13.170	< .001

Repeated Measures ANOVA SLIDExEMOTIVxTopic

Descriptives

Contrast Tables

Simple Contrast - SLIDE

Comparison	Estimate	SE	df	t	p
2 Contradiction - 1 Statement	-1.199	0.531	288	-2.257	0.025
3 Rationalization - 1 Statement	-0.883	0.531	288	-1.662	0.098
4 Consideration - 1 Statement	-1.369	0.531	288	-2.578	0.010
5 Action - 1 Statement	-2.255	0.531	288	-4.247	< .001

Note. Results are averaged over the levels of: TopicID, Pro/Contra version, EMOTIV

Simple Contrast - SLIDE * EMOTIV

Comparison	Estimate	SE	df	t	p
1	-1.703	0.848	1264.269	-2.008	0.045
2	-2.068	0.848	1264.269	-2.439	0.015
3	-1.294	0.848	1264.269	-1.526	0.127
4	-3.219	0.848	1264.269	-3.796	< .001
5	0.370	1.649	499.032	0.224	0.823
6	-1.265	1.707	564.249	-0.741	0.459
7	-0.185	1.707	564.249	-0.109	0.914
8	-1.299	1.707	564.249	-0.761	0.447
9	-2.954	1.707	564.249	-1.730	0.084
10	-22.291	1.649	499.032	-13.516	< .001
11	-25.327	1.707	564.249	-14.835	< .001
12	-25.906	1.707	564.249	-15.174	< .001
13	-26.557	1.707	564.249	-15.555	< .001
14	-26.488	1.707	564.249	-15.515	< .001
15	-5.400	1.649	499.032	-3.274	0.001
16	-6.097	1.707	564.249	-3.571	< .001
17	-5.522	1.707	564.249	-3.235	0.001
18	-6.618	1.707	564.249	-3.877	< .001
19	-7.281	1.707	564.249	-4.265	< .001
20	-15.529	1.649	499.032	-9.416	< .001
21	-15.684	1.707	564.249	-9.186	< .001

Simple Contrast - SLIDE * EMOTIV

Comparison	Estimate	SE	df	t	p
22	-15.124	1.707	564.249	-8.859	< .001
23	-15.086	1.707	564.249	-8.836	< .001
24	-15.764	1.707	564.249	-9.234	< .001
25	-17.898	1.649	499.032	-10.852	< .001
26	-17.866	1.707	564.249	-10.465	< .001
27	-17.238	1.707	564.249	-10.097	< .001
28	-18.110	1.707	564.249	-10.608	< .001
29	-18.574	1.707	564.249	-10.879	< .001

Note. Results are averaged over the levels of: TopicID, Pro/Contra version

Simple Contrast - TopicID * EMOTIV

Comparison	Estimate	SE	df	T	p
1	1.564	3.893	243.913	0.402	0.688
2	-2.079	3.893	243.913	-0.534	0.594
3	-2.479	3.893	243.913	-0.637	0.525
4	0.774	3.034	360.000	0.255	0.799
5	1.322	3.893	243.913	0.340	0.734
6	-0.444	3.893	243.913	-0.114	0.909
7	-2.287	3.893	243.913	-0.587	0.557
8	-22.622	3.034	360.000	-7.457	< .001
9	-25.210	3.893	243.913	-6.476	< .001
10	-25.137	3.893	243.913	-6.457	< .001
11	-24.654	3.893	243.913	-6.333	< .001
12	-4.424	3.034	360.000	-1.458	0.146
13	-5.869	3.893	243.913	-1.508	0.133
14	-3.795	3.893	243.913	-0.975	0.331
15	-7.016	3.893	243.913	-1.802	0.073
16	-15.808	3.034	360.000	-5.211	< .001
17	-13.615	3.893	243.913	-3.497	< .001
18	-13.414	3.893	243.913	-3.446	< .001
19	-15.281	3.893	243.913	-3.925	< .001
20	-17.727	3.034	360.000	-5.843	< .001
21	-17.216	3.893	243.913	-4.423	< .001
22	-16.091	3.893	243.913	-4.133	< .001
23	-17.082	3.893	243.913	-4.388	< .001

Note. Results are averaged over the levels of: Pro/Contra version, SLIDE

Simple Contrast - TopicID * SLIDE * EMOTIV

Comparison	Estimate	SE	df	t	p
1	2.076	4.178	322.147	0.497	0.620
2	0.180	4.178	322.147	0.043	0.966
3	-0.314	4.178	322.147	-0.075	0.940
4	0.224	1.696	1264.269	0.132	0.895
5	0.818	4.178	322.147	0.196	0.845
6	-2.740	4.178	322.147	-0.656	0.512
7	-3.170	4.178	322.147	-0.759	0.449
8	-1.319	1.696	1264.269	-0.778	0.437
9	1.555	4.178	322.147	0.372	0.710
10	-3.012	4.178	322.147	-0.721	0.471
11	-3.554	4.178	322.147	-0.851	0.396
12	0.481	1.696	1264.269	0.283	0.777
13	1.714	4.178	322.147	0.410	0.682
14	-2.725	4.178	322.147	-0.652	0.515
15	-2.702	4.178	322.147	-0.647	0.518
16	-1.497	1.696	1264.269	-0.883	0.377
17	-0.456	4.178	322.147	-0.109	0.913
18	-4.211	4.178	322.147	-1.008	0.314
19	-4.769	4.178	322.147	-1.141	0.255
20	2.146	3.299	499.032	0.650	0.516
21	1.465	4.178	322.147	0.351	0.726
22	1.249	4.178	322.147	0.299	0.765
23	-1.437	4.178	322.147	-0.344	0.731
24	-0.732	3.415	564.249	-0.214	0.830
25	0.850	4.178	322.147	0.203	0.839
26	-0.693	4.178	322.147	-0.166	0.868
27	-2.544	4.178	322.147	-0.609	0.543
28	1.966	3.415	564.249	0.576	0.565
29	1.811	4.178	322.147	0.433	0.665
30	-0.468	4.178	322.147	-0.112	0.911
31	-2.108	4.178	322.147	-0.505	0.614
32	0.956	3.415	564.249	0.280	0.780
33	1.457	4.178	322.147	0.349	0.728
34	-1.442	4.178	322.147	-0.345	0.730
35	-4.226	4.178	322.147	-1.011	0.313
36	-2.579	3.415	564.249	-0.755	0.450
37	-1.083	4.178	322.147	-0.259	0.796
38	-2.979	4.178	322.147	-0.713	0.476

Simple Contrast - TopicID * SLIDE * EMOTIV

Comparison	Estimate	SE	df	t	p
39	-3.232	4.178	322.147	-0.774	0.440
40	-17.046	3.299	499.032	-5.168	< .001
41	-24.030	4.178	322.147	-5.752	< .001
42	-22.611	4.178	322.147	-5.412	< .001
43	-23.534	4.178	322.147	-5.633	< .001
44	-21.373	3.415	564.249	-6.259	< .001
45	-25.528	4.178	322.147	-6.110	< .001
46	-26.828	4.178	322.147	-6.421	< .001
47	-25.639	4.178	322.147	-6.137	< .001
48	-24.519	3.415	564.249	-7.181	< .001
49	-25.338	4.178	322.147	-6.065	< .001
50	-25.454	4.178	322.147	-6.093	< .001
51	-26.370	4.178	322.147	-6.312	< .001
52	-27.343	3.415	564.249	-8.008	< .001
53	-25.609	4.178	322.147	-6.130	< .001
54	-26.960	4.178	322.147	-6.453	< .001
55	-24.374	4.178	322.147	-5.834	< .001
56	-24.942	3.415	564.249	-7.305	< .001
57	-27.657	4.178	322.147	-6.620	< .001
58	-25.944	4.178	322.147	-6.210	< .001
59	-25.467	4.178	322.147	-6.096	< .001
60	-4.057	3.299	499.032	-1.230	0.219
61	-5.878	4.178	322.147	-1.407	0.160
62	-3.677	4.178	322.147	-0.880	0.379
63	-6.046	4.178	322.147	-1.447	0.149
64	-4.509	3.415	564.249	-1.321	0.187
65	-6.636	4.178	322.147	-1.588	0.113
66	-3.936	4.178	322.147	-0.942	0.347
67	-7.365	4.178	322.147	-1.763	0.079
68	-2.850	3.415	564.249	-0.835	0.404
69	-6.235	4.178	322.147	-1.492	0.137
70	-4.025	4.178	322.147	-0.964	0.336
71	-7.037	4.178	322.147	-1.684	0.093
72	-6.026	3.415	564.249	-1.765	0.078
73	-5.849	4.178	322.147	-1.400	0.162
74	-4.692	4.178	322.147	-1.123	0.262
75	-7.964	4.178	322.147	-1.906	0.058
76	-6.789	3.415	564.249	-1.988	0.047
77	-6.857	4.178	322.147	-1.641	0.102
78	-4.754	4.178	322.147	-1.138	0.256

Simple Contrast - TopicID * SLIDE * EMOTIV

Comparison	Estimate	SE	df	t	p
79	-8.783	4.178	322.147	-2.102	0.036
80	-16.596	3.299	499.032	-5.031	< .001
81	-15.710	4.178	322.147	-3.760	< .001
82	-13.031	4.178	322.147	-3.119	0.002
83	-14.840	4.178	322.147	-3.552	< .001
84	-17.286	3.415	564.249	-5.062	< .001
85	-13.814	4.178	322.147	-3.306	0.001
86	-13.142	4.178	322.147	-3.146	0.002
87	-16.551	4.178	322.147	-3.961	< .001
88	-13.982	3.415	564.249	-4.095	< .001
89	-14.880	4.178	322.147	-3.562	< .001
90	-13.763	4.178	322.147	-3.294	0.001
91	-15.929	4.178	322.147	-3.813	< .001
92	-16.155	3.415	564.249	-4.731	< .001
93	-12.363	4.178	322.147	-2.959	0.003
94	-14.246	4.178	322.147	-3.410	< .001
95	-15.636	4.178	322.147	-3.743	< .001
96	-17.133	3.415	564.249	-5.018	< .001
97	-13.421	4.178	322.147	-3.212	0.001
98	-14.999	4.178	322.147	-3.590	< .001
99	-15.563	4.178	322.147	-3.725	< .001
100	-17.594	3.299	499.032	-5.334	< .001
101	-17.908	4.178	322.147	-4.286	< .001
102	-16.719	4.178	322.147	-4.002	< .001
103	-17.429	4.178	322.147	-4.172	< .001
104	-17.497	3.415	564.249	-5.124	< .001
105	-17.570	4.178	322.147	-4.206	< .001
106	-16.490	4.178	322.147	-3.947	< .001
107	-17.963	4.178	322.147	-4.300	< .001
108	-16.294	3.415	564.249	-4.772	< .001
109	-17.832	4.178	322.147	-4.268	< .001
110	-15.245	4.178	322.147	-3.649	< .001
111	-17.638	4.178	322.147	-4.222	< .001
112	-19.563	3.415	564.249	-5.730	< .001
113	-17.270	4.178	322.147	-4.134	< .001
114	-16.776	4.178	322.147	-4.015	< .001
115	-16.887	4.178	322.147	-4.042	< .001
116	-19.799	3.415	564.249	-5.799	< .001
117	-17.613	4.178	322.147	-4.216	< .001
118	-17.336	4.178	322.147	-4.150	< .001

Simple Contrast - TopicID * SLIDE * EMOTIV

Comparison	Estimate	SE	df	t	p
119	-17.605	4.178	322.147	-4.214	< .001

Note. Results are averaged over the levels of: Pro/Contra version

Repeated Measures ANOVA SLIDExEEGxStimulusTopic**Descriptives****Contrast Tables****Simple Contrast - SLIDE**

Comparison	Estimate	SE	df	t	p
2 Contradiction - 1 Statement	-0.860	0.212	288	-4.057	< .001
3 Rationalization - 1 Statement	-0.839	0.212	288	-3.957	< .001
4 Consideration - 1 Statement	-1.260	0.212	288	-5.940	< .001
5 Action - 1 Statement	-1.346	0.212	288	-6.349	< .001

Note. Results are averaged over the levels of: TopicID, Pro/Contra version, EEG

Simple Contrast - SLIDE * EEG

Comparison	Estimate	SE	df	t	p
1	-2.512	0.290	843.994	-8.672	< .001
2	-2.651	0.290	843.994	-9.153	< .001
3	-2.808	0.290	843.994	-9.694	< .001
4	-2.809	0.290	843.994	-9.698	< .001
5	-6.513	0.417	468.043	-15.612	< .001
6	-7.408	0.457	615.488	-16.193	< .001
7	-7.467	0.457	615.488	-16.322	< .001
8	-7.642	0.457	615.488	-16.706	< .001
9	-7.482	0.457	615.488	-16.354	< .001
10	-8.933	0.417	468.043	-21.413	< .001
11	-8.992	0.457	615.488	-19.656	< .001
12	-9.104	0.457	615.488	-19.900	< .001
13	-9.657	0.457	615.488	-21.110	< .001
14	-9.878	0.457	615.488	-21.592	< .001
15	-10.188	0.417	468.043	-24.422	< .001
16	-10.412	0.457	615.488	-22.760	< .001
17	-10.303	0.457	615.488	-22.521	< .001

Descriptives

SLIDE	EMOTIV	Pro/Contra version	N	Mean	SD	SE	Coefficient of variation
1 Statement	Interest	0	40	42.493	16.617	2.627	0.391
		1	40	43.356	14.981	2.369	0.346
	Relaxation	0	40	31.714	15.526	2.455	0.490
		1	40	33.876	14.547	2.300	0.429
	Stress	0	40	29.826	10.367	1.639	0.348
		1	40	31.027	9.277	1.467	0.299
	Attention	0	40	48.437	8.627	1.364	0.178
		1	40	48.212	8.683	1.373	0.180
	Engagement	0	40	48.271	18.541	2.932	0.384
		1	40	49.118	17.584	2.780	0.358
	Excitement	0	40	24.499	12.518	1.979	0.511
		1	40	27.569	14.760	2.334	0.535
2 Contradiction	Interest	0	40	42.742	16.824	2.660	0.394
		1	40	41.714	14.788	2.338	0.355
	Relaxation	0	40	31.977	15.417	2.438	0.482
		1	40	33.306	16.139	2.552	0.485
	Stress	0	40	30.256	10.335	1.634	0.342
		1	40	30.662	9.801	1.550	0.320
	Attention	0	40	46.475	9.323	1.474	0.201
		1	40	46.769	9.841	1.556	0.210
	Engagement	0	40	46.556	18.440	2.916	0.396
		1	40	47.563	18.896	2.988	0.397
	Excitement	0	40	22.831	10.718	1.695	0.469
		1	40	23.163	12.938	2.046	0.559
3 Rationalisation	Interest	0	40	43.844	17.284	2.733	0.394
		1	40	41.760	12.439	1.967	0.298
	Relaxation	0	40	33.352	15.226	2.407	0.457
		1	40	33.049	14.007	2.215	0.424
	Stress	0	40	31.145	10.983	1.737	0.353
		1	40	31.028	8.368	1.323	0.270
	Attention	0	40	46.546	10.026	1.585	0.215
		1	40	45.967	9.195	1.454	0.200

Descriptives

SLIDE	EMOTIV	Pro/Contra version	N	Mean	SD	SE	Coefficient of variation
4 Consider	Engagement	0	40	48.779	19.022	3.008	0.390
		1	40	47.499	17.132	2.709	0.361
	Excitement	0	40	22.449	10.059	1.590	0.448
		1	40	22.388	11.433	1.808	0.511
	Interest	0	40	43.231	17.494	2.766	0.405
		1	40	40.181	15.733	2.488	0.392
	Relaxation	0	40	34.152	16.159	2.555	0.473
		1	40	32.326	16.883	2.670	0.522
	Stress	0	40	30.840	10.521	1.664	0.341
		1	40	29.590	10.349	1.636	0.350
	Attention	0	40	47.590	8.468	1.339	0.178
		1	40	46.471	9.145	1.446	0.197
	Engagement	0	40	49.219	21.010	3.322	0.427
		1	40	44.831	19.809	3.132	0.442
	Excitement	0	40	22.441	11.833	1.871	0.527
		1	40	21.094	9.906	1.566	0.470
5 Action	Interest	0	40	41.968	16.244	2.568	0.387
		1	40	40.118	15.902	2.514	0.396
	Relaxation	0	40	33.146	16.123	2.549	0.486
		1	40	31.974	16.396	2.592	0.513
	Stress	0	40	30.367	9.905	1.566	0.326
		1	40	29.134	10.423	1.648	0.358
	Attention	0	40	45.171	8.854	1.400	0.196
		1	40	45.041	9.247	1.462	0.205
	Engagement	0	40	46.917	20.163	3.188	0.430
		1	40	43.825	19.679	3.112	0.449
	Excitement	0	40	22.424	9.054	1.432	0.404
		1	40	21.248	11.134	1.760	0.524

Descriptives

Descriptives

SLIDE	EEG	Pro/Contra version	N	Mean	SD	SE	Coefficient of variation
1 Statement	Beta	0	40	26.976	5.441	0.860	0.202

Descriptives

SLIDE	EEG	Pro/Contra version	N	Mean	SD	SE	Coefficient of variation
2 Contradiction	Gamma	1	40	27.661	5.689	0.899	0.206
		0	40	24.596	5.865	0.927	0.238
	Delta	1	40	25.188	5.867	0.928	0.233
		0	40	37.264	5.638	0.891	0.151
	Theta	1	40	37.750	4.980	0.787	0.132
		0	40	30.811	4.198	0.664	0.136
	Alpha	1	40	31.176	4.327	0.684	0.139
		0	40	28.286	4.357	0.689	0.154
	Beta	1	40	28.862	4.607	0.728	0.160
		0	40	27.068	5.413	0.856	0.200
	Gamma	1	40	27.121	6.064	0.959	0.224
		0	40	24.165	5.303	0.838	0.219
	Delta	1	40	24.395	5.938	0.939	0.243
		0	40	35.455	4.273	0.676	0.121
	Theta	1	40	34.536	3.904	0.617	0.113
		0	40	30.451	3.703	0.585	0.122
3 Rationalisation	Alpha	1	40	29.747	3.928	0.621	0.132
		0	40	28.705	3.751	0.593	0.131
	Beta	1	40	28.324	4.467	0.706	0.158
		0	40	27.259	5.351	0.846	0.196
	Gamma	1	40	27.148	5.666	0.896	0.209
		0	40	24.696	5.597	0.885	0.227
	Delta	1	40	24.477	5.595	0.885	0.229
		0	40	34.761	4.271	0.675	0.123
	Theta	1	40	34.951	4.226	0.668	0.121
		0	40	30.155	3.570	0.564	0.118
	Alpha	1	40	29.925	3.926	0.621	0.131
		0	40	28.526	3.522	0.557	0.123
	Beta	1	40	28.280	3.951	0.625	0.140
		0	40	27.150	5.391	0.852	0.199
	Gamma	1	40	26.349	5.776	0.913	0.219
		0	40	24.195	5.613	0.887	0.232
4 Consider	Delta	1	40	23.452	5.696	0.901	0.243
		0	40	34.736	3.928	0.621	0.113
	Theta	1	40	34.663	4.060	0.642	0.117
		0	40	29.989	3.092	0.489	0.103
	Beta	1	40	29.739	3.866	0.611	0.130
		0	40	29.739	3.866	0.611	0.130

Descriptives

SLIDE	EEG	Pro/Contra version	N	Mean	SD	SE	Coefficient of variation
5 Action	Alpha	0	40	28.157	3.687	0.583	0.131
		1	40	27.542	4.325	0.684	0.157
	Beta	0	40	26.953	5.321	0.841	0.197
		1	40	26.356	5.801	0.917	0.220
	Gamma	0	40	23.756	5.150	0.814	0.217
		1	40	23.336	5.552	0.878	0.238
	Delta	0	40	33.976	3.229	0.511	0.095
		1	40	35.420	3.953	0.625	0.112
	Theta	0	40	29.618	3.101	0.490	0.105
		1	40	30.432	3.874	0.612	0.127
	Alpha	0	40	27.757	3.562	0.563	0.128
		1	40	27.500	3.855	0.610	0.140

Appendix 4. Participant Consent for Participation in the Experiment

Since the participants in this study were recruited from the database of the public opinion research agency Ipsos, and since this agency conducted the recruitment of participants based on a questionnaire created by the candidate, and the experiment was carried out on the premises of the Ipsos agency in Novi Sad, the participants completed two consent forms for participation in the experiment – the consent form of the Ipsos agency and the consent form of the candidate. Both forms are included in this appendix.



SAGLASNOST ZA LIČNE PODATKE

Poštovani/a,

Pozvani ste da učestvujete u eksperimentu u okviru doktorske disertacije kandidata Marine Komad na Fakultetu političkih nauka – doktorske studije kulture i medija.

Eksperiment u kome ćete učestvovati biće vođen od strane doktoranda Marine Komad.

Eksperiment podrazumeva prikaz setova slajdova sa određenim političkim porukama i pitanjima, tokom kog će biti primenjena metoda merenja EEG signala uređajem Emotiv Insight (www.emotiv.com) i kratak razgovor. Odgovornost za rad na ovom uređaju snosi vođa eksperimenta. Stavovi koje budete iskazali u okviru ovog eksperimenta neće biti povezani sa Vašim ličnim podacima, odnosno svi rezultati eksperimenta će biti anonimizirani.

Ipsos Strategic Marketing d.o.o., Gavрила Principa 8, Beograd, MB: 06216331, PIB: 100221076 (u daljem tekstu: „Ipsos“), je kompanija koja se bavi istraživanjem tržišta, medija i javnog mnjenja, od 1992. godine i istraživanja sprovodi u skladu sa Zakonom, pravilima struke i zahtevima svojih klijenata. U ovom istraživanju učestvujemo kao organizator intervjua u okviru kojih će se sprovesti gore pomenuti eksperiment.

Mi poštujemo privatnost Vaših ličnih podataka i obavezujemo se na njihovu zaštitu u skladu sa odredbama Zakona o zaštiti podataka o ličnosti.

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- Vaša e-mail adresa,
- Broj telefona, mobilnog telefona
- Pol
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Vaši lični podaci neće biti prosleđeni trećim licima, uključujući i Marinu Komad, za čije se potrebe sprovodi ovaj eksperiment u okviru izrade doktorske disertacije. Takođe Vaše stavove niko neće moći da poveže sa vašim ličnim podacima, osim Ipsos-a.

U svakom trenutku možete da odustanete od date Saglasnosti, da zatražite promenu ili ispravku već datih ličnih podataka i / ili da zatražite prestanak daljnje obrade Vaših ličnih podataka. U slučaju opoziva Saglasnosti, Vaši lični podaci biće izbrisani iz Ipsosove baze podataka, a u slučaju nedozvoljene obrade podataka možete se obratiti Povereniku za informacije od javnog značaja i zaštitu podataka o ličnosti.

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Ipsos Strategic Marketing d.o.o., Gavril Principa br.8, 11000 Beograd

E-mail: DPO.Serbia@ipsos.com

Ime i prezime:

Potpis:

Datum:

FAKULTET POLITIČKIH NAUKA

Istraživanje za potrebe doktorske disertacije

Istraživač: Marina Komad

Poštovani, pozvani ste da učestvujete u istraživanju u okviru doktorske disertacije kandidatkinje Marine Komad na Fakultetu političkih nauka – doktorske studije kulture i medija.

Eksperiment u kom ćete učestvovati biće vođen od strane doktoranta Marine Komad.

Eksperiment podrazumeva prikaz setova slajdova sa određenim političkim porukama i pitanjima, tokom kog će biti primenjena metoda merenja EEG signala uređajem Emotiv Insight i kratak razgovor.

Istraživanje je u potpunosti anonimno i volontarno.

Vašim potpisom dajete saglasnost da učestvujete u ovom istraživanju.

Datum:

Potpis saglasnosti:

Author's Biography

Marina Komad was born on 28 July 1984 in Bačka Palanka. She completed her undergraduate studies in 2008 at the Faculty of Political Sciences, University of Belgrade, in the Journalism and Communication major. She graduated with a GPA of 9.23, and defended her final thesis titled *"Spectacle as a Form of Promotion of Political Parties and Candidates"*, under the supervision of Professor Dr Zoran Slavujević. Upon completion, she was awarded the academic title of Graduate Journalist.

She completed her Master's studies in 2014 at the Faculty of Political Sciences, University of Belgrade, in the study programme Political Science – Master in International Studies, module International Security. She graduated with a GPA of 10.00, and her master's thesis titled *"The Role of the Media in Securitisation During Operation Sablja"*, was supervised by Professor Dr Filip Ejodus. She was awarded the academic title of Master in Political Science – International Affairs.

The candidate pursued professional development in the field of media and communications in Munich (Germany), at the television Sky. She continued her training in online, TV, and radio journalism at Deutsche Welle in Bonn (Germany). From 2011 to 2014, she published articles and interviews as a correspondent and author for the weekly magazines.

Since 2014, Marina Komad has worked as a media and communications consultant and has been engaged in the creation and implementation of electoral campaigns. Since 2019, she has held the position of Senior Advisor and Partner at the consulting firm "Three Winters", based in Munich (Germany), where she specialises in strategic communications, marketing, and public relations. Since 2021, as the owner and director of a consulting agency in the field of communications and business, she has also continued her work in this field in parallel in Serbia.

Marina Komad speaks English and German, and has working knowledge of Spanish, Italian, and French.

Izjava o autorstvu

Ime i prezime autora: Marina Komad

Broj indeksa: 10/2015

Izjavljujem

da je doktorska disertacija pod naslovom – Motivisano rezonovanje i efekti političkog marketinga: Ispitivanje mobilizacijske uloge političkog ubeđivanja po modelu Vestenovog eksperimenta

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Broj indeksa: 10/2015

Studijski program: Doktorske studije kulture i medija

Naslov rada: Motivisano rezonovanje i efekti političkog marketinga: Ispitivanje mobilizacijske uloge političkog ubeđivanja po modelu Vestenovog eksperimenta

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