Chapter 11
Methodological Challenges in Neuropolitical Research and Determining the Sample Selection

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ABSTRACT

The burgeoning field of neuropolitics, scrutinizing the intersection of neurological data and political behavior, is gaining traction in interdisciplinary research. This study navigates challenges, methodological advancements, and opportunities in this domain, focusing on data collection tools and integrating qualitative methods. Highlighting neuropolitics' multidisciplinary essence and reliance on EEG, fMRI, and Eye Trackers, the paper delves into decision-making behaviors. It emphasizes the need for standardized research processes and explores the efficacy of these tools, spotlighting EEG's accessibility and the user-friendliness of Eye Trackers. The study links neuropolitics with qualitative methodologies, advocating for sample coherence and employing data triangulation for rigor. It proposes a preliminary model integrating qualitative frameworks and neurological tools, accentuating their potential in enhancing objectivity. It urges collaborative efforts to challenge conventional paradigms in political studies.

INTRODUCTION

Neuropolitics is an interdisciplinary field that has become increasingly significant in recent years and focuses on the utilization of techniques for collecting neurological data. Recently, a consensus has emerged among political scientists who have reexamined the origins of political preferences. They now recognize that internal influences play a significant role in shaping political attitudes and actions (Hatemi et al., 2008). The collective belief has reinforced the inclination to concentrate on the human brain, where behavior originates, in order to conduct a more thorough analysis of political behavior. In order to comprehend the formation of political behavior, political scientists have embraced a multidisciplinary approach by partnering with many disciplines, within the framework of the notion of neuropolitics. Consequently, the utilization of data collection instruments like electroencephalography (EEG) and functional magnetic resonance imaging (fMRI), which gather signals from the central nervous system, as well as Eye Trackers, has become the focus of modeling, method development, and analysis (Alford & Hibbing, 2008; Amodio et al., 2007; Carmen, 2007; Fowler & Schreiber, 2008; Schreiber et al., 2013; Smith et al., 2011; Taber & Young, 2013). The primary objective of neuropolitics is to collect data on the decision-making behaviors of political decision-makers and analyze this data to derive useful insights regarding behavior. It has been noted that the brain's structure, function, and influence on the voting behavior of political decision-makers is more significant than originally anticipated (Tusche et al., 2013; Weissflog et al., 2013). Thus, the study methods employed in this domain typically aim to replicate a decision-making process or expose participants to stimuli such as political parties, symbols, slogans, and scenarios. Nevertheless, the primary obstacle for these emerging disciplines lies in the construction of a suitable approach. Upon analyzing the studies undertaken in the field of neuropolitics, it becomes apparent that there is a lack of standardized research processes. Most research commonly employ EEG as the primary data collecting method, however other studies that involve EEG additionally utilize Eye Trackers as additional data gathering techniques. The data gathering procedure and evaluation of findings are undertaken using subjective criteria, which are prone to bias and interpretation. Hence, certain scientists are endeavoring to build methodologies and oversee procedures for conducting such forms of research. The primary aim of this research is to provide a qualitative method framework to facilitate the challenging and complex field of neuropolitical studies. Additionally, it seeks to present a more dependable and easily accessible option for collecting and evaluating data by employing robust data gathering methods. Hence, the challenges associated with directly implementing a neuropolitical approach are discussed. Furthermore, the shared attributes of qualitative approaches and neuropolitical methods are emphasized. Lastly, this paper examines appropriate

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