Neurophysiological Responses to Moral Transgressions according to Political Orientation

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1 Introduction

Individuals differ in their responses to moral violations, reflecting underlying moral value profiles that correlate with political ideology. These values are shaped by socialization, context, and motivated cognition, and may also be reflected in differences in neurophysiological responses (Hopp et al. (2023). Accordingly, this pilot study examines whether political orientation is correlated with differential neurophysiological responses to verbally presented moral violations. Participants will be asked to indicate their political orientation on a 7-point scale ranging from strongly liberal to strongly conservative. Detailed descriptions will be provided for each response option to promote a consistent interpretation of the scale between participants.

2 Methods

Neurophysiological responses will be assessed using a combination of electroencephalography (EEG) and eye tracking, using both methods together to measure neural and physiological aspects of cognitive and emotional processing. 25 participants will read 90 sentences selected from MFV (Moral Foundations Vignettes), equally distributed into six foundations: CARE, FAIRNESS, LOYALTY, AUTHORITY, SANCTITY and LIBERTY (Clifford et al. (2015). EEG analyses will focus on event related potentials associated with semantic and emotional processing, while eye tracking measures will include fixation duration and pupil dilation as indicators of attention and arousal.

3 Results

Drawing on prior research, participants' neurophysiological responses are expected to differ based on their political orientation. Specifically, individuals with more liberal orientations are anticipated to show stronger responses to CARE and FAIRNESS violations, whereas individuals with more conservative orientations are expected to show stronger responses to AUTHORITY, LOYALTY, and SANCTITY violations (Graham et al. (2013) . Additionally, analyses will examine potential associations between EEG and eye tracking measures.

Sentence	Foundation
You see a teenage boy chuckling at an amputee he passes by while on the subway.	Care
You see a soccer player pretending to be seriously fouled by an opposing player.	Fairness
You see a man leaving his family business to go work for their main competitor.	Loyalty
You see a man turn his back and walk away while his boss questions his work.	Authority
You see a family eating the carcass of their pet dog that had been run over.	Sanctity
You see a man telling his girlfriend that she must convert to his religion.	Liberty

Tab. 1: Examples of all six MFV foundations.

4 Discussion

Although the small sample size limits the generalizability of the findings, this study aims to provide preliminary evidence for the relationship between political orientation and neurophysiological responses to moral violations. The results will contribute to future research employing multimodal approaches to studying moral cognition and emotional processing, particularly through the combined use of EEG and eye tracking.

References

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