Fakultät für Psychologie
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Präregistrierung Stereotype Threat im akademischen Kontext

Präregistrierung systematisches Review - vor systematischer Recherche und Auswertung

Title:

Stereotype Threat im akademischen Kontext

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Hintergrund

Stereotype threat, introduced by Steele & Aronson (1995), describes the situational predicament where members of a historically marginalized social group, aware of negative stereotypes surrounding their in-group, feel at risk of confirming these stereotypes (Appel & Kronberger, 2012; Beilock et al., 2007; Jończyk et al., 2022; Spencer et al., 1999; Steele, 1997; Steele & Aronson, 1995; Wheeler & Petty, 2001). Attempts to avoid this outcome can lead to suboptimal performance (Schmader et al., 2008; Spencer et al., 2016).

Schmader & Johns (2003) propose that stereotype threat impairs working memory capacity, hindering performance on complex cognitive tasks. This impairment is attributed to the cognitive load imposed by anxiety and self-monitoring under stereotype threat. Research demonstrates that stereotype threat reduces the efficiency of working memory systems, particularly the phonological loop and central executive functions (Beilock et al., 2007). Further, Ashcraft & Kirk (2001) proposed that anxiety about task performance under stereotype threat drains working memory resources by inducing intrusive thoughts and worries that compete with ongoing cognitive tasks.

Stereotype threat has been most extensively studied in academic settings, the primary focus of this literature review. Research into the mechanisms of stereotype threat has primarily utilized more economical methods (e.g., questionnaires, behavioural observations) (Derks et al., 2008), with a smaller body of work employing the tools of social neuroscience, a relatively nascent field.

Social neuroscience integrates social psychology and cognitive neuroscience, offering

the possibility to gain more profound insight into the cognitive processes and neural mechanisms underlying stereotype threat (Derks et al., 2008). Tools such as functional magnetic resonance imaging (fMRI) and electroencephalography (EEG) allow researchers to explore specific neural regions and systems in social psychology phenomena (Ochsner & Lieberman, 2001).

Neuroimaging studies have revealed that stereotype threat can induce variations in neural activation across different brain areas and networks (e.g. Jończyk et al., 2022; Krendl et al., 2008; Wraga et al., 2007).

Drawing from these theories and empirical findings, this literature review aims to address the following research questions: - How does stereotype threat impact neural activation patterns and cognitive processes in academic settings? - What are the specific neural and cognitive mechanisms through which stereotype threat influences academic performance?

By employing social neuroscience techniques, this review seeks to elucidate how stereotype threat influences brain function and cognitive processes, thereby contributing to a more comprehensive understanding of its impact in the academic context.

Hypothesen:

H1: In academic context, stereotype threat induces variations in neural activation across different brain areas and networks, potentially influcencing academic performance. These may include, but are not limited to, the amygdala, the prefrontal cortex, the default mode network, and the salience network.

H2: Individuals under stereotype threat will experience a temporary delice in cognitive control (as measured through brain activation patterns in the cognitive control network, executive function network, or through performance on behavioural tasks and questionnaires). This decline will lead to poorer academic performance compared to individuals not experiencing stereotype threat.

H3: Students working memory performance is impaired under conditions of stereotype threat in academic settings. This impairment manifests through a reduction in working

memory capacity, processing speed and accuracy, resulting in lower academic performance.

Recherche:

Auswahlkriterien:

Sonstiges:

Literatur:

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