



Evidence of shifting racial biases?

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A B S T R A C T

Racial biases are not fixed; they shift over time as cultural narratives about various social groups shift. Such shifts are usually triggered by catalytic events such as the murder of George Floyd. Dang et al. (2022) potentially document such a shift in brain responses to African Americans experiencing police violence; participants engage brain mechanisms involved in mentalising more when witnessing such atrocities, evidence of a lack of dehumanisation. This commentary urges caution towards such interpretations of these findings and encourages future research to better understanding shifting racial biases over time.

Previous research documents dehumanised perception when European Americans watch videos of police violence against African Americans (for review, see Pryor, Buchanan and Goff, 2020); such participants fail to process the victims of police violence as fully human. This is manifested in a failure to hear screams of the victim, and quicker associations of the victim with non-human great apes, consistent with historical stereotypes about people of African descent (Goff et al., 2008). This dehumanisation based on racial categorisation suggests perpetuation of social biases across centuries is still rooted in how European Americans perceive African Americans.

Video evidence of police violence however may also serve as the panacea to such endemic social bias. Historical analogies—from Martin Luther King's Birmingham protest suppression captured by television cameras and broadcast globally, to Rodney King's beating and subsequent riots in Los Angeles—predate recent technology that now gives every person a high-definition video camera and broadcasting device in their pockets. They suggest that such images are powerful in driving attitude and policy change that addresses social bias and racial discrimination. Modern technology has allowed for the video capture of police violence against African Americans over the last few years, culminating in George Floyd's gruesome murder by Minnesota police officers. Have such stimuli led to changes in how European Americans perceive African Americans when they are victimised by police?

Dang et al. (2022) documents a change in the perception of European Americans when they view African Americans as victims of police violence. The more aggressive they perceived the police to be towards the African American victim, the more they humanised the victim, engaging social cognition brain regions (for review, see Harris and Fiske, 2009). Social neuroscience research typically finds increased amygdala activity when European Americans view pictures of people of predominantly African descent (for a review, see Kubota et al., 2012). However, research has never documented reduced social cognition brain network engagement when European Americans perceive African Americans, consistent with a dehumanised perception. The current results certainly suggest that the victims are mentalised based on the aggressiveness of the police officers.

There are valuable contributions to the literature and examples of best practices in Dang et al. (2022). The combination of behavioural data and brain imaging tells a coherent story, with the brain imaging data providing additional insight that could not be gleaned by examining the behavioural data alone. The stimuli are ecologically valid and the brain imaging study well-powered (though see Marek et al., 2022) and largely representative. It is a powerful demonstration of the potential of social neuroscience to elucidate the brain mechanisms underlying social processes, with applications for social justice and policy.

Yet Dang et al. (2022) is another in a series of research focussing on how European Americans respond to African Americans. Research does focus on African American perspectives, demonstrating psychological consequences of being a victim of discrimination (Fani et al., 2021; Harrell et al., 2003; Neblett and Roberts, 2013). Such experiences lead to increased risk of physical and mental illness, along with the physiological responses consistent with these diseases. Yet such research is usually not connected with studies like Dang et al. (2022) to demonstrate a complete picture. Moreover, if policy change were the goal, all decision-makers are not European Americans, so there are limitations to the extent that it can be applied to the real-world context. As such, it furthers the cottage industry of work where European Americans and their responses remain the focus, with no discernible contribution to society beyond better understanding some people's responses to a very narrow outgroup.

Police violence plagues people globally, and this study is also not able to generalise such effects beyond the African American-as-victim context. Even in America, other racial groups suffer from the police, yet it remains unclear whether they drive similar increases in social cognition. The lack of these comparison groups in this study leave this question open. Moreover, it is unclear how this generalises to other groups in other societies where police violence is rampant. Would similar findings emerge in Hong Kong, Belarus, Brazil, or Russia? Is this response a human universal, or culturally specific?

Finally, it is unclear whether this effect is simply the result of the Black Lives Matter movement. The data was collected at the height of the societal furrow surrounding police violence against African Americans,

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<https://doi.org/10.1016/j.neuroimage.2022.119151>.

Received 12 January 2022; Accepted 26 March 2022

Available online 27 March 2022.

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and it is unclear whether such effects are present today, or will be in ten years, given that these social biases have endured centuries. Have things changed sufficiently where a convenient sample in a liberal state is a canary in the coal-mine for the death knell of racism, or does it simply reflect a contextual phenomenon of the time and place where the data was collected?

Therefore, this study raises more questions despite the positive findings. Future research should explore these questions, extend beyond the African American context, track change over time, and explore a brain mechanism for change engaged by catalytic events. In so doing, this research can serve as a starting point for a richer exploration of the brain mechanisms of witnessing police violence and shifting prejudices.

Data and code availability statement

This commentary contains no data, nor does it report on the collection of data, or secondary analyses. There is no code used to analyse such data. Therefore, there is no data or code to be made available.

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