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The neuroscience of prejudice and stereotyping: barbarians at the southern gate?

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Dear friends,

I want to recommend you the following extraordinary paper by David M. Amodio (currently at NYU Psychology Department. It is an outstanding review of the "… the neural basis of prejudice and stereotyping in an effort to identify the processes through which these biases form, influence behaviour and are regulated …" (Amodio, 2014: 670).

According to the author, we should differentiate between "prejudice" (an emotional-evaluative component of social bias) and "stereotyping" (cognitive-conceptual attributes linked to particular groups, as defined by culture).

Furthermore, he proposes the existence of three functional structures involved in the neural process of prejudice and stereotyping: 1) the prejudice network, 2) the stereotyping network, and 3) the regulation network.

The prejudice emotional network is comprised by the amygdala, together with the insula, the stratium, the orbital frontal cortex (ofc), and the ventral medial prefrontal cortex (mpfc). The amygdala is considered the processor of "fear" per excellence, and as such "… is involved in the rapid processing of social category cues, including racial groups, in terms of potential threat or reward …", thus, the extensive literature on "fear conditioning" should inform our understanding of "implicit prejudice" (see banaji & greenwald, 2013, for an outstanding analysis of implicit attitudes and social biases), specifically regarding how this form of bias may be eventually extinguished. (p. 672).

Complementing the amygdala, the Insula "… supports visceral and subjective emotional responses towards social ingroups or outgroups …", while the stratium mediates approach related goal-directed responses, through the computation of the value of anticipated outcomes and potential actions, such as the ones potentially derived from inter-group interaction. The OFC seems to reinforce this particular function of the stratium, because it is associated with deliberative judgements about the prospect of "befriending" outgroups.

Finally, the mPFC, which is considered also a part of the OFC, is primarily associated with the formation of impressions about other people, especially those that require considering a person's unique perspective and motives (i.e. "mentalizing"), and thus it is considered to be related to the process of "empathy". Hence, weaker mPFC in response to a social target is associated with "dehumanization" (a form of prejudice) and a lack of empathy (such as the famous case of Phineas Gage extensively documented by Damasio, 2005).

On its part, the stereotyping cognitive functional network is comprised by the Temporal Lobe (Anterior – ATL – and Lateral -LTL), Dorsal mPFC and the Lateral PFC. The LTL is generally involved in the process of "semantic memory", and thus particularly with "… representations of stereotype-related knowledge about people and social groups in the ATL …" (p. 675). Besides its involvement in the elaboration of prejudice, the mPFC is associated with the "… representation of an individual's traits, preferences and mental states during impression formation …", and thus with stereotyping. Finally, the Lateral PFC is commonly associated with what William James, one of the fathers of American Psychology, famously observed: "… thinking is doing", because it supports the selection of concepts in working memory to support instrumental (goal-directed) action.

Finally, the regulation network supports the self-regulation and control of intergroup responses through the coordinated involvement of the mPFC (which is related to the process of "perspective taking" and "mentalizing") and the Lateral PFC (i.e. working memory, response selection and goals). Thus, as self-regulation results critical for adaptive social behavior, given the "unwanted" influence of implicit biases on behavior, this is (perhaps the less studied) but the most important of the three networks, at least for those, such as myself, that consider the self-regulation of prejudice and stereotyping a moral necessity of our society.

Therefore, it seems to be particularly important the suggestion of Amodio (2014), for whom: "… the effective control of behavior, conflict monitoring processes must be paired with top-down response plans …" (p. 679). Thus, for example, notwithstanding the public discourse of Mr. Trump in the USA, we shouldn't desist on our moral efforts to link specific cues (for example, "If I meet a Mexican in a"), with a "pre-planned response" such as: "I will ignore Mr. Trump allegations Mexicans as ''Drug dealers, criminals, rapists' …" (BBC, 2016).

Something particularly challenging with the current social conflict at the southern border.
Do you agree?
Best regards.
Felipe

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