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Our brains make us out to be unique in ways we are not

Commentary on [Chapman & Huffman](#) on *Human Difference*

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Abstract: Humans have long viewed themselves in a favorable light. This bias is consistent with a general pattern of self-enhancement. Neural systems in the medial prefrontal cortex underlie this way of thinking, which, even when false, may be beneficial for survival. It is hence not surprising that we often disregard contrary evidence in believing ourselves superior.

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Humans have long thought of themselves as holding a privileged position. Scientific discoveries over the centuries (e.g., Copernicus) have modified this anthropocentric view, with Darwin (1859/2003) presenting the strongest evidence that we are no more unique than any other life-form. Although humans do have some exclusive adaptations (e.g., active teaching, fine motor skills, spoken and written language), there is little that distinguishes us from other primates or mammals at a biological level (Hayahi & Matsuzawa, 2017). The belief that humans are a special species nevertheless exists to this day (Chapman & Huffman, 2018). We therefore ask: “Is there a specific reason why humans consider themselves as special in light of such strong counterevidence?”

One explanation might be that our species has specific brain functions that alter our perception of reality to make us see ourselves as privileged and unique. The basis for this tendency is the medial prefrontal cortex (MPFC), a brain region that subserves first-person narratives and self-awareness. The function of this area includes ego-inflation and self-enhancement. This sense of being special changes as the MPFC develops (Alarcón, Sauder, Teoh, Forbes, & Quevedo, 2019; Quevedo et al., 2016, 2018). Ego-protection and expansion are core parts of human development (Rodman, Powers, & Sommerville, 2017).

Impression management is associated with MPFC activity: seeing oneself in a favorable light is in fact the baseline state (Farrow, Burgess, Wilkinson, & Hunter, 2015). When rating ourselves compared to intimate others, we tend to see ourselves more favorably (Luber, Lou,

Keenan, & Lisanby, 2012). Neuroimaging shows that the MPFC is activated when participants are involved in self-enhancement (Lou & Rosenthal, 2017). Disruption of the MPFC with transcranial magnetic stimulation decreases self-enhancement (Barrios, et al., 2008). There are similar findings regarding knowledge; participants pretend to know more than they do, and disruption of the MPFC decreases these claims (Amati, Oh, Kwan, Jordan, & Keenan, 2010). Self-enhancement even occurs within single individuals comparing themselves to their previous self. We tend to see ourselves as smarter and wiser currently compared to the past even when data indicate this is not so (Hitchcock, Rees, & Dalgleish, 2017).

Seeing oneself as privileged provides significant benefits. People who self-enhance have a lower risk of depression and suicide (Hitchcock, Rees, & Dalgleish, 2017). In an extensive review of over 125,000 individuals, increased self-enhancement was found to be correlated with better personal adjustment. This finding remained significant across gender, age, and culture (Dufner, Gebauer, Sedikides, & Denissen, 2018). It is accordingly neither surprising nor encouraging to see such beliefs holding strong today.

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