

Moral and Financial Values in the Brain

Abstract

Moral preferences pervade many aspects of our lives, dictating how we ought to behave, whom we can marry, and even what we eat. Despite their relevance, one fundamental question remains unanswered: Where do individual moral preferences come from? It is often thought that all types of preferences reflect properties of domain-general neural decision mechanisms that employ a common “neural currency” to value choice options in many different contexts. This assumption, however, appears at odds with the observation that many humans consider it intuitively wrong to employ the same scale to compare moral value (e.g., of a human life) with material value (e.g., of money). In this paper, we directly challenge the common-currency hypothesis by comparing the neural mechanisms that represent moral and financial subjective values. In a study combining fMRI with a novel behavioral paradigm, we identify neural representations of the subjective values of human lives or financial payoffs by means of structurally identical computational models. Correlating isomorphic model variables from both domains with brain activity reveals specific patterns of neural activity that selectively represent values in the moral (in the rTPJ) or financial (in the vmPFC) domain. Thus, our findings show that human lives and money are valued in distinct neural currencies, supporting theoretical proposals that human moral behavior is guided by processes that are distinct from those underlying behavior driven by personal material benefit.

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