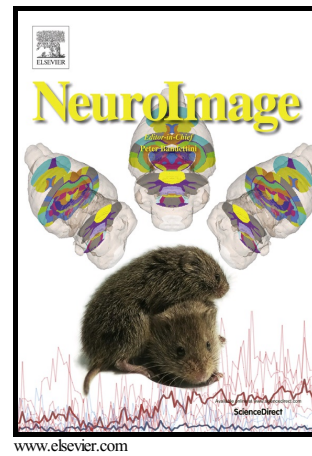# Author's Accepted Manuscript

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How do self-interest and other-need interact in the brain to determine altruistic behavior?

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Abstract

Altruistic behavior, i.e., promoting the welfare of others at a cost to oneself, is subserved by the integration of various social, affective, and economic factors represented in extensive brain regions. However, it is unclear how different regions interact to process/integrate information regarding the helper's interest and recipient's need when deciding whether to behave altruistically. Here we combined an interactive game with functional Magnetic Resonance Imaging (fMRI) and transcranial direct current stimulation (tDCS) to characterize the neural network underlying the processing/integration of self-interest and other-need. At the behavioral level, high self-risk decreased helping behavior and high other-need increased