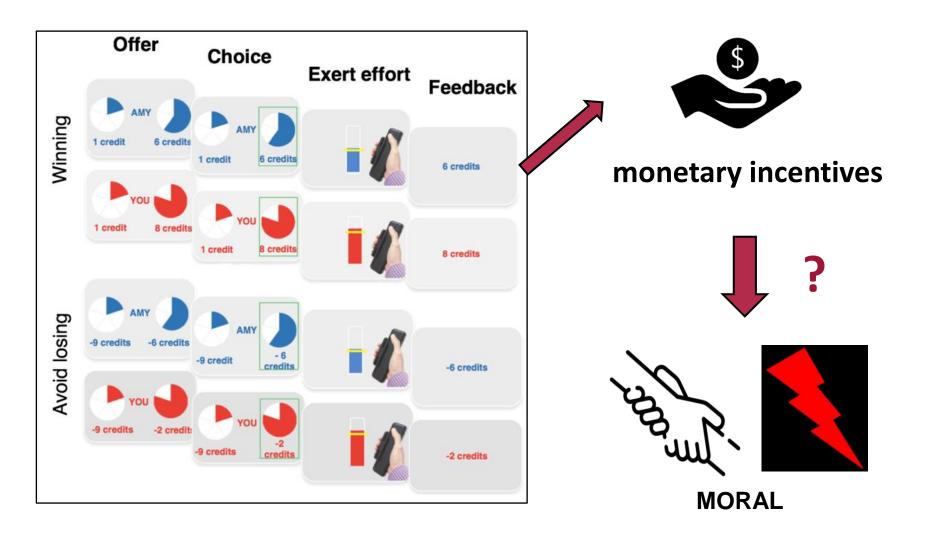


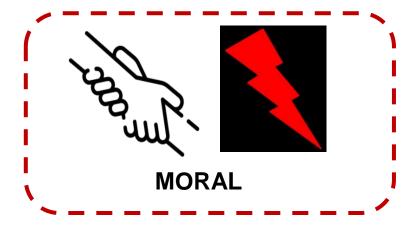
avoiding pain to others motivates effortful prosocial behavior reducing prosocial apathy

February 10, 2025

Yang Ziyang 2025.2.21

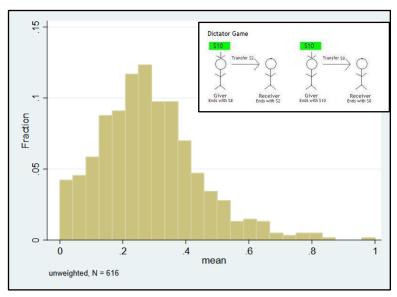








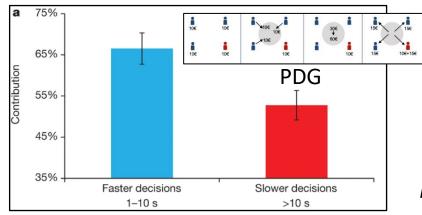
monetary incentives

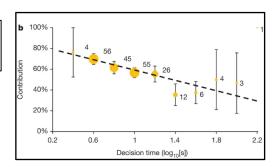


В **Choice behavior** chosen (%) YOU correct Play for LEWIS Percentage NO ONE NO ONE 100 points! 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 **Trial number** Prosocial-self learning rate (a.u) Empathy score Learning Self Prosocial No one Self Prosocial No one

Lockwood et al., 2016; PNAS

Engel et al., 2011; Review



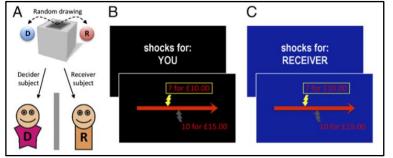


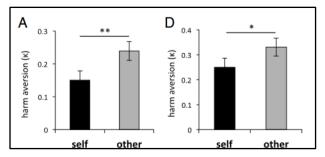
Rand et al., 2012; Nature

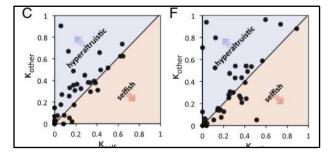




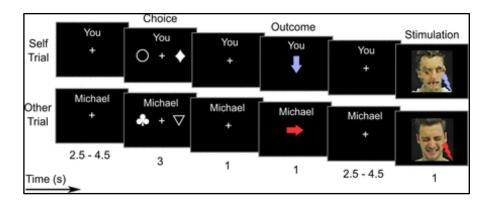
MORAL

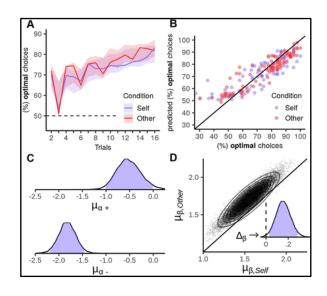






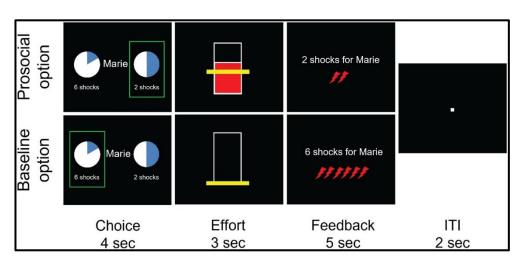
Molly et al., 2017; PNAS

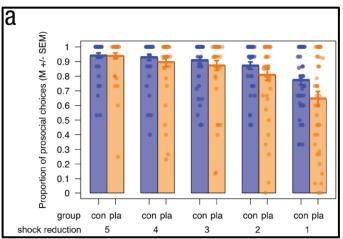




Lamm et al., 2020; JN

protecting others from harm holds greater motivational value than increasing others' wealth

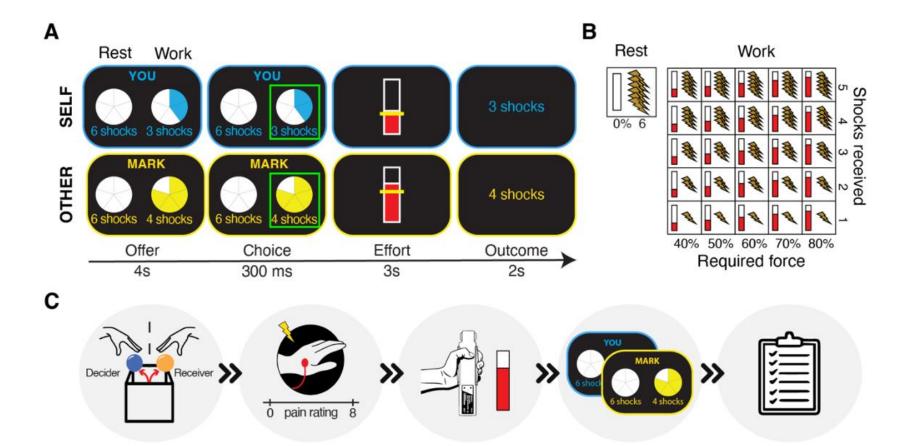


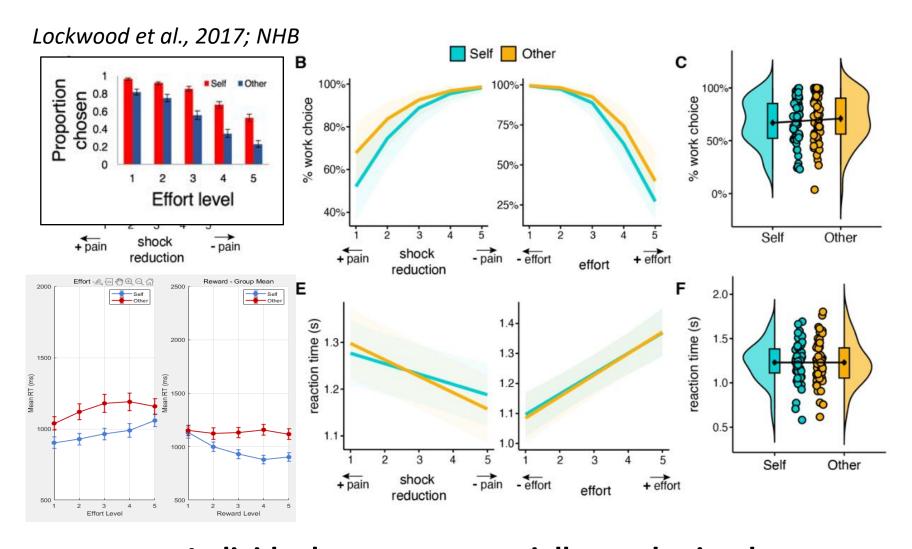


Hartmann et al., 2022; Psychological Science

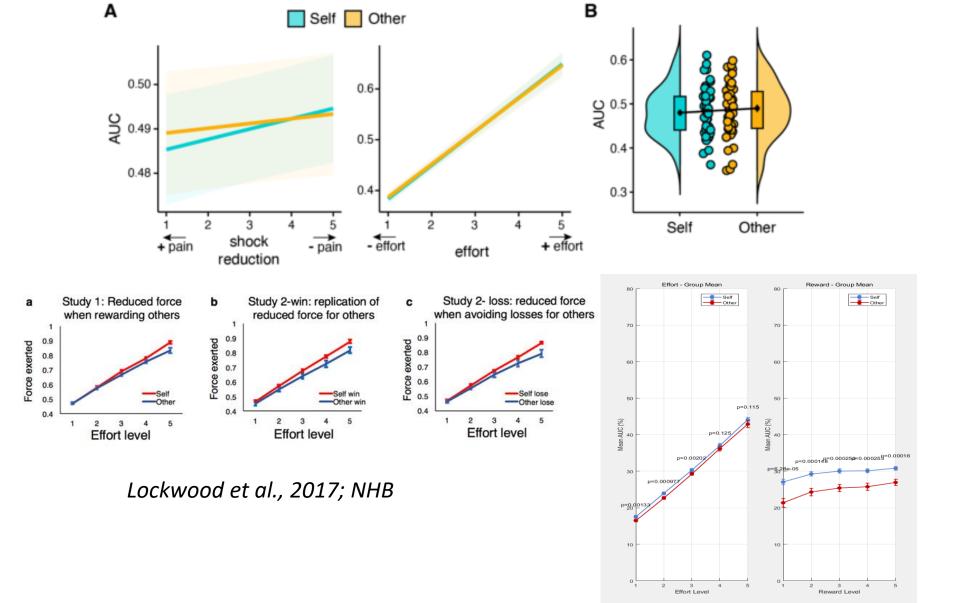
not include a condition of self-beneficial effort

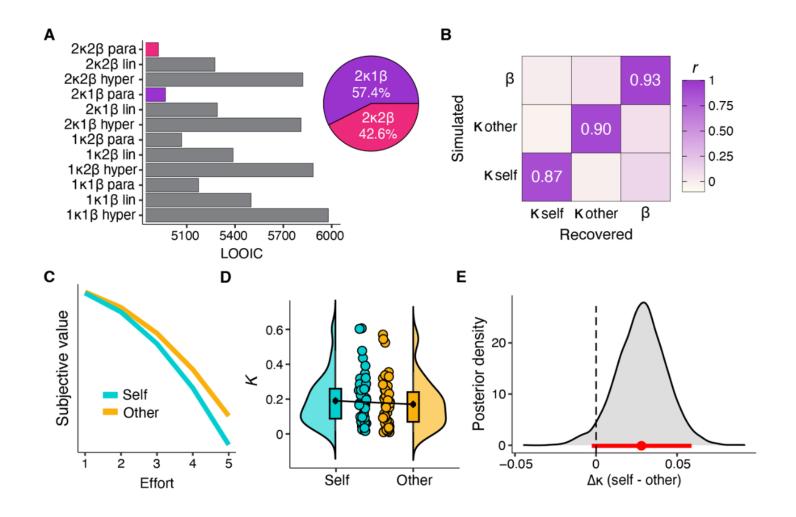
Design

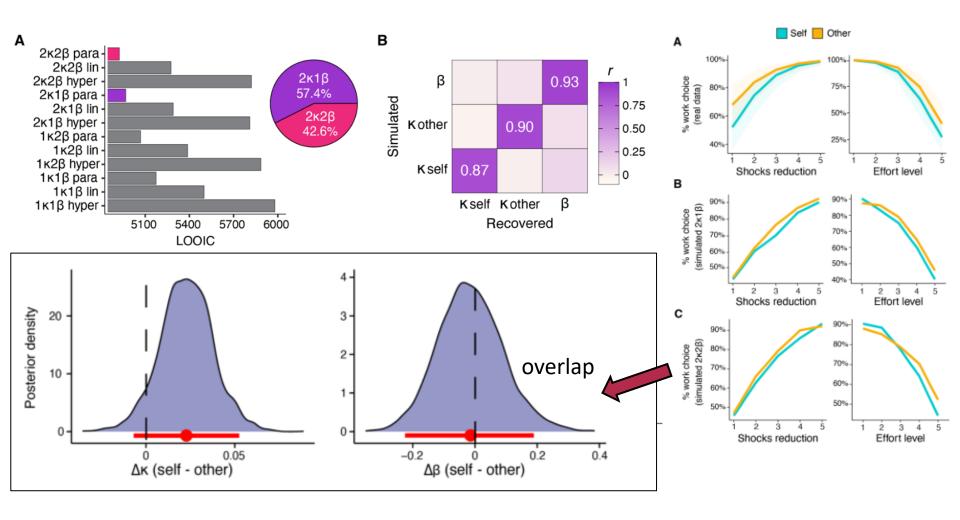




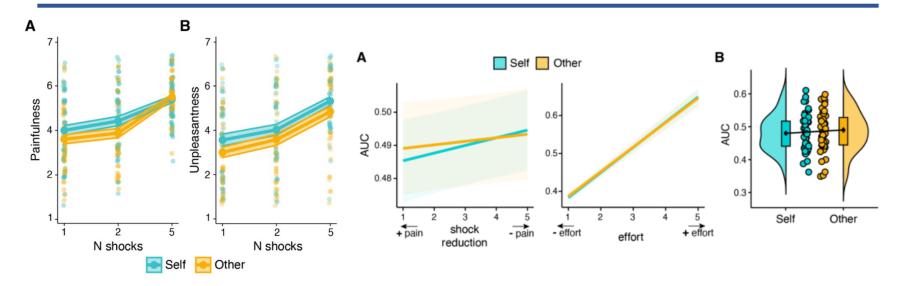
Individuals are not prosocially apathetic when choosing to exert effort to reduce others' pain



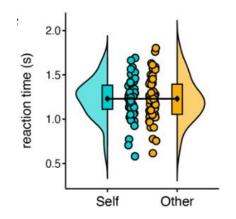




posterior predictive checks



"may not be the type of cost — effort — that makes people less willing to help others, but rather the type of incentive at stake — increasing another's wealth — that does **not sufficiently motivate effortful prosocial behavior**"



hyperaltruism

strong moral connotation



The linkage between first-hand pain sensitivity and empathy for others' pain: Attention matters

Human Brain Mapping, 2020

Yang Ziyang 2025.1.24