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PSYCHOLOGY

People work less hard for others

Effort is costly. People devalue personal rewards that require some measure of physical or even mental effort. Laboratory studies now suggest that physical effort is especially costly when engaged to benefit others. Even when people are willing, however, their efforts are often superficial, with people doing what is necessary but no more.

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In ways large and small, people act prosocially and altruistically to improve the welfare of others at personal cost to themselves. They hold doors, snap photos, and take time to give directions to perfect strangers. Asking whether people are prosocial therefore seems like a silly question (though it continues to preoccupy scholars in various disciplines)[1–3]. More interesting to consider, perhaps, is why people aren't more prosocial. Why, for example, don't people voluntarily help perfect strangers when they need to move homes or re-shingle their roofs?

This question is the subject of laboratory experiments now published in *Nature Human Behaviour* by Patricia Lockwood and colleagues from the Department of Experimental Psychology at the University of Oxford[4]. Although past work on the topic has typically examined whether people are willing to incur financial costs for the benefit of others[5,6], the current research examined altruism in the face of a more mundane and commonplace cost: physical effort.

Effort is aversive[7]. Humans and other animals generally avoid it, and they devalue or discount personal rewards if they require some modicum of physical or even mental effort[8]. Lockwood and colleagues probed this rate of effort discounting, but with an important twist — they not only examined how people discount personal rewards requiring physical effort, they also examined how people discount rewards for others. Importantly, the authors' paradigm allowed them to separately determine whether people are less motivated by rewards for others, more averse to effort expended for others, or both.

Across 2 experiments, 93 people made a series of choices about whether they were willing to exert a requested level of physical effort in exchange for an offered level of monetary reward and then executed the chosen effort. To quantify effort, the participants held a hand dynamometer and were required to squeeze it until they reached and maintained the desired grip force, which was scaled as a percentage of each person's maximal voluntary contraction. Participants made choices between a no effort and low-reward option and a variable option that was higher in reward but also higher in required effort. Critically, in half of the cases, participants made choices to personally expend effort to earn payment for themselves; and in the other half, they made choices to personally expend effort so that a stranger would earn the payment. After making their choice, participants squeezed the handle to meet the required degree of force (unless they chose the no effort and low-reward option). The authors examined not only choices but also the actual force exerted when they chose altruistic effort.

Results revealed that the participants were socially apathetic, at least to an extent. When faced with low effort costs, participants were willing to benefit both themselves and others; when the effort costs were substantial, however, participants were less willing to work for the benefit of others than for themselves. The authors fit economic models to formally quantify the subjective influence of effort on reward and found that effort was especially aversive when it was exerted to benefit someone else.

Measurements of physical force confirmed this extra cost: participants applied less grip force for others than for themselves, especially at higher levels of effort. The results suggest that participants were only superficially prosocial: even when willing to work on behalf of others, they appeared to work with only half a heart, doing what was absolutely necessary but not more.

These experiments extend previous work that demonstrated discounting of rewards for others[9] by showing that such effects apply beyond financial considerations. They also raise many questions. First, one might ask what artificial laboratory studies that pit hand-grip exercises against abstract rewards for a random stranger say about altruism in

the wild. We think that such experiments can reveal a great deal — although indeed artificial, the design of the study allows for careful quantification of people's prosocial preferences. Individual differences in the computational parameters quantifying prosocial apathy correlated with self-reported social apathy and psychopathy measures, suggesting that it may tap into stable motivational processes. But we have at best an incomplete understanding of why people differ in these ways.

Second, one might ask why participants show any willingness to work for the benefit of others. Classic economic views indicate that a rational actor would never expend effort for an anonymous stranger[3]. In contrast, the participants in these studies were less willing to work for others than for themselves; but their willingness was substantially greater than zero. People did engage effort for anonymous strangers even when it was very effortful. Seen this way, the results provide an optimistic take on human prosociality, revealing pockets of human generosity and goodwill, even to strangers.

Perhaps the most important question raised by these results is whether prosocial apathy is the rule in human behaviour, or whether there are cases where people might actually be more willing to incur effort costs for others than for themselves. Prosociality in the wild typically involves kin, friends, or neighbours with whom one repeatedly interacts. When the other person is known in this way, prosociality and cooperation might be the rule, not the exception[2,10]. Indeed, in the second experiment by Lockwood and colleagues, participants very briefly met the person who would benefit from their effort, and they were subsequently more willing to work on their behalf. Although participants still worked harder for themselves than for others, a brief face-to-face meeting moderated effort discounting and increased people's prosocial motivation. Future work will need to address whether working for kin or other loved ones (for example, one's children) might eliminate or even reverse the direction of effort discounting differences for self versus others. Lockwood and colleagues thus offer a new task to explore human prosociality, with the promise of revealing its extents and limits. ❐

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Competing interests

The authors declare no competing interests.