Reciprocity: Why We Help Those Who Aren’t Family

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Although interactions with non-kin are generally less altruistic compared to those with kin, cooperation can be maintained with non-kin via mutually beneficial reciprocity as was proposed by Robert Trivers. If there are repeated encounters between the same two players in an evolutionary game in which each of them can choose either to "cooperate" or "defect," then a strategy of mutual cooperation may be favored even if it pays each player, in the short term, to defect when the other cooperates. Direct reciprocity can lead to the evolution of cooperation only if the probability, w, of another encounter between the same two individuals exceeds the cost-to-benefit ratio of the altruistic act:

w > c/b

Reciprocity can also be indirect if information about previous interactions is shared. Reputation allows evolution of cooperation by indirect reciprocity. Natural selection favors strategies that base the decision to help on the reputation of the recipient: studies show that people who are more helpful are more likely to receive help. The calculations of indirect reciprocity are complicated and only a tiny fraction of this universe has been uncovered, but again a simple rule has emerged. Indirect reciprocity can only promote cooperation if the probability, q, of knowing someone's reputation exceeds the cost-to-benefit ratio of the altruistic act:

q > c/b

One important problem with this explanation is that individuals may be able to evolve the capacity to obscure their reputation, reducing the probability, q, that it will be known.

Trivers argues that friendship and various social emotions evolved in order to manage reciprocity. Liking and disliking, he says, evolved to help our ancestors form coalitions with others who reciprocated and to exclude those who did not reciprocate. Moral indignation may have evolved to prevent one's altruism from being exploited by cheaters, and gratitude may have motivated our ancestors to reciprocate appropriately after benefiting from others' altruism. Likewise, we feel guilty when we fail to reciprocate. These social motivations match what evolutionary psychologists expect to see in adaptations that evolved to maximize the benefits and minimize the drawbacks of reciprocity.

Evolutionary psychologists say that humans have psychological adaptations that evolved specifically to help us identify nonreciprocators, commonly referred to as "cheaters." In 1993, Robert Frank and his associates found that participants in a prisoner's dilemma scenario were often able to predict whether their partners would "cheat," based on a half hour of unstructured social interaction. In a 1996 experiment, for example, Linda Mealey and her colleagues found that people were better at remembering the faces of people when those faces were associated with stories about those individuals cheating (such as embezzling money from a church).