

Be Your Best Friend If You'll Be Mine: Alliance Hypothesis For Human Friendship

ScienceDaily (June 5, 2009) — University of Pennsylvania psychologists studying the cognitive mechanisms behind human friendship have determined that how you rank your best friends is closely related to how you think your friends rank you. The results are consistent with a new theory called the Alliance Hypothesis for Human Friendship, distinct from traditional explanations for human friendship that focused on wealth, popularity or similarity.

The study, performed by Penn cognitive psychologists Peter DeScioli and Robert Kurzban, has demonstrated that human friendship is caused, in part, by cognitive mechanisms aimed at creating a ready-made support group for potential conflicts. People call on friends for help in a variety of disputes, ranging from trivial arguments to violent fights. This study suggests that people have specialized decision processes that prioritize those individuals who tend to be most helpful in conflicts, those with fewer stronger commitments to others.

Researchers performed question-and-answer studies in which participants ranked their closest friends in a number of ways, including, for example, the benefits they receive from the friendship, the number of secrets shared and how long the friendship has been ongoing. Each time, whether participants were an online community, random passersby on a metropolitan street or undergraduate students in a laboratory, friendship rankings were most strongly correlated with individuals' own perceived rank among their partners' other friends.

"Historically, the main theory has been that humans build friendships in order to trade in goods and services," DeScioli, lead author, said. "The problem we focused on was that friendship involves more than exchange. People want friends who care about them and do not give just to get something back in return. We thought that theories about alliances might help explain why friends are primarily concerned with each others' needs rather than the benefits they can get in return for helping."

Traditional evolutionary approaches to explain human friendship apply the Theory of Reciprocal Altruism: Friends function as exchange partners; however, a wealth of empirical evidence from social psychology is inconsistent with the theory. For example, in prior studies it was shown that people do not keep regular tabs on the benefits given and received in close relationships. Also, people seem to help friends even when they are unlikely to be capable of repayment. For cognitive psychologists, it is unclear what humans and their complex brains are up to in creating these relationships.



Friends. University of Pennsylvania psychologists studying the cognitive mechanisms behind human friendship have determined that how you rank your best friends is closely related to how you think your friends rank you. (Credit: iStockphoto/Ethan Myerson)

The new Penn theory has origins in models of alliance building between nations, which prepare for conflict in advance but may not expect anything in return immediately.

"Friendships are about alliances," Kurzban, an associate professor, said. "We live in a world where conflict can arise and allies must be in position beforehand. This new hypothesis takes into account how we value those alliances. In a way, one of the main predictors of friendship is the value of the alliance. The value of an ally, or friend, drops with every additional alliance they must make, so the best alliance is one in which your ally ranks you above everyone else as well."

In short, the hypothesis is much more optimistic about the reasons for friendship than existing theories which point toward popularity, wealth and proximity as reasons for friendship.

"In this hypothesis," Kurzban said, "it's not what you can do for me, it's how much you like me. In this manner even the weakest nations, for example, or the least popular kid at the party with nary an alliance in the room is set up to be paired with someone looking for a friend."

More darkly, the new model also serves as an explanation for some petty human behaviors not explained by traditional friendship theories. For example, the Alliance Hypothesis explains why people are extremely concerned with comparisons to others in their social circle. It also explains how jealousies and aggression can erupt among groups of friends as alliances are shifted and maintained.

If the Alliance Hypothesis for Human Friendship is correct, then theories about alliances from game theory and international relations might help us better understand friendship. These theories suggest that people in conflict would benefit strategically from ranking their friends, hiding their friend-rankings and ranking friends according to their own position in partners' rankings. To employ these tactics in their friendships, people need to gather and store information about their friends' other friendships. That is, they have to readily understand the social world not only from their own perspective but also from the perspectives of their friends.

Although friendship is a core element of human social life, its evolved functions have been difficult to understand. Human friendship occurs among individuals who are neither relatives nor mates, so the function of this cooperative behavior is not as clear as when reproduction or genetic relatives are involved. Similar relationships have been observed in non-human species -- hyenas use partners to gain access to carcasses and male dolphins employ "wingmen" to attain females for mating — and considerable progress has been made in understanding these non-human relationships. But the functions of human friendship have been more elusive.

The study, appearing in the current issue of the online journal *Public Library of Science One*, was conducted by DeScioli and Kurzban of the Department of Psychology in the School of Arts and Sciences at Penn.

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