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Altruism and reciprocity among friends and kin in a Tibetan village

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ABSTRACT

To explain the high level of altruism among unrelated friends, some people propose that friends may apply the feeling and emotions that underlie kin-selected nepotism to each other. Alternatively, altruism among friends may be sustained by an evolved psychology that is sensitive to the dynamic of contingent reciprocity. A recent study (Stewart-Williams, S., 2007. Altruism among kin vs. nonkin: effects of cost of help and reciprocal exchange. Evolution and Human Behavior, 28, 193–198) with North American students showed that the amount of help given and received was less likely to be balanced among friends (as among relatives) than among acquaintances, suggesting that exchange among friends and relatives may rely on similar psychological mechanisms. To assess whether the similar pattern in exchange reflects the similar psychology in exchange, I tested how different types of relationship regulated the amount of help given and received, and people's emotional reaction to non-reciprocation. I asked 45 participants from a Tibetan village in China to imagine how unhappy they would feel if the target person (sibling, cousin, friend or acquaintance) failed to reciprocate their help in various contexts. I found that overall, friends and relatives were more tolerant to non-reciprocation than acquaintances were. For emotional help, friends were more likely to feel unhappy about non-reciprocation than relatives were, but were similar to relatives in responses to other types of help (aid during crisis, labor, and financial help). The study suggests that people may evaluate the importance of reciprocity differently in various situations, and exhibit different levels of sensitivity to the dynamic of reciprocity. Thus it calls for careful distinctions between friends and kin in the everyday lives of individuals.

1. Introduction

Friendship has been documented all over the world. Although the form that friendships take varies considerably, mutual aid based on need is a fundamental component of friendship in numerous cultures (Hruschka, 2010). Intuitively, it makes sense that friends should help each other in times of need. However, it is a puzzle from the evolutionary point of view. Friendships are often formed among nonrelatives, who may incur costs when they provide benefits to their partners. Altruistic behavior among nonrelatives is inherently risky, because one person may receive help from another without reciprocating (Silk, 2003). This raises the evolutionary question: how is altruism maintained among friends?

Altruism among genetically related individuals is favored by kin selection when it increases the helper's inclusive fitness (Hamilton, 1964). Some scholars have proposed that people "mistakenly" apply the feeling and emotions that underlie kin-selected nepotism to unrelated partners (Mills & Clark, 1994; Kenrick & Trost, 2000; Brown & Brown, 2006; Ackerman, Kenrick, & Schaller, 2007). This argument proposes that prosocial preferences evolved because people in ancient environments were embedded in a social network of close relatives. They proposed that our ancestors had little need to distinguish between kin and non-kin, and were generally altruistic to each other and treated non-kin like kin. However, recent evidence on the co-residence patterns among foraging societies revealed that most individuals in residential groups were not genetically related (Hill et al., 2011). Moreover, even if close friendship and kinship inspire similar feelings, they seem to guide helping behavior in subtly different ways (Hruschka, 2010). For instance, people are willing to bear a greater cost to help a close friend than an extended or a distant kin, but to bear a lower cost to help a close friend than an immediate kin (Madsen et al., 2007). In addition, given the same level of subjective closeness, an individual is more likely to help a relative than a friend (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; Rachlin & Jones, 2008; Curry, Roberts, & Dunbar, 2012).

It is possible that the psychological systems underlying interactions among friends are favored by natural selection because they help to resolve common adaptive problems of cooperation and mutual aid in uncertain environments (Tooby & Cosmides, 1996; Vigil, 2007). Friendships may be sensitive to the dynamics of contingent reciprocity (Trivers, 1971; Axelrod & Hamilton, 1981). If this is the case, in repeated interactions with costly help, individuals

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are expected to monitor the behavior of their partners and terminate cooperative relationship with partners who do not contribute at threshold levels (Bendor, Kramer, & Stout, 1991). A variety of strategies could be evolutionarily stable, but all require some degree of monitoring of the partner's behavior (Hruschka & Henrich, 2006; McNamara et al., 2009).

Empirically, the role of monitoring in friendship is not entirely clear. A series of social psychology studies suggests that people actually avoid keeping track of help provided to and received from friends, and feel betrayed if friends reciprocate immediately or directly (Clark, 1984; Mills & Clark, 1994). However, people are also uncomfortable with imbalances in their relationships with friends, and dislike receiving more than they have given and vice versa (O'Connor, 1992; Shackelford & Buss, 1996). Thus, friends may not be completely unaware of help given to or received from each other. Our previous work suggests that there is an important distinction between tracking and tolerance among friends and strangers (Xue & Silk, 2011). We conducted parallel behavioral economic games with college students in the US, China, and Japan and found that subjects tracked contributions of their partners to joint tasks when they were paired with friends or strangers. However, friends were less likely than strangers to stop cooperating even when they were aware of imbalances in the inputs of their partner. Moreover, if altruism is contingent on the cooperative intention of the partner, an individual should also compare the help his partner provided to him with the help the partner provided to others (DeScioli & Kurzban, 2009). It is possible that friendship psychology has evolved to deal with noisy information and to be tolerant to short-term imbalances. This is consistent with theoretical models, which predict that single acts of defection will not terminate a friendship immediately, but accumulated defections over time jeopardize relationships among friends (Hruschka & Henrich, 2006).

If altruism is based on either kin selection or contingent reciprocity, then people should be sensitive to the costs of help that they give to others. There is some evidence that the cost of help has a differential effect on kin and non-kin friends. In a questionnaire among college students in North America, participants were asked to report the amount of help they had given to or received from a target individual in the past two months (Stewart-Williams, 2007). The results indicate that friends are more sensitive to the cost of help than kin, as increasing the cost of help reduced the tendency to help a friend, but increased the tendency to help a sibling or a cousin.

If helping is based on reciprocity, then there should be positive association between help given and received. This balance may be less important for kin than friends because kin may gain inclusive fitness benefits from helping and therefore be willing to tolerate greater imbalances in help given and received. Stewart-Williams (2007) found that the amount of help given and received was less likely to be balanced among friends (as among relatives) than among acquaintances, suggesting that exchanges among friends and relatives may rely on similar psychological mechanisms. However, the similar pattern in exchange might not necessarily reflect the similar psychology in change. It is unclear whether friends and relatives differed in their reactions when help was not reciprocated in various contexts.

Furthermore, it is difficult to make generalizations about the importance of reciprocity in friendship from studies conducted in a single cultural context. Patterns of behavior in contemporary developed countries might not be representative of other societies, in which kin networks may be more important (Henrich, Heine, & Norenzayan, 2010). The importance of friendship might have been overemphasized in the studies of U.S. college students because most are living with friends and are far away from their families (Joy, 2001; Huang, 2006).

The present study assessed how different types of relationship (i.e. friends, siblings, cousins, and acquaintances) regulate help given and received, as well as people's emotional reaction to non-reciprocation in various contexts. I conducted the study with 45 participants from Gashari, a Tibetan village in Qinghai province, China. Gashari is largely composed of extended families and is patrilocal in residency. There are over 200 households in the village, and the total population is approximately 1500. Gashari residents relied on support from friends and relatives in a variety of domains, including agricultural work, household maintenance, childcare, long distance travel and trade. Support from family and friends is important for residents of the village because of the poorly developed infrastructure and welfare system.

The present study investigated three related hypotheses. Following Stewart-Williams (2007), I predicted that as the cost of help increases, the level of altruism will decrease among friends and acquaintances, but will increase among siblings and cousins (Hypothesis 1). The importance of reciprocity is expected to be influenced by both the likelihood of future interactions and benefits derived from inclusive fitness. Acquaintances may have little certainty about whether they will interact again in the future or have the opportunity to reciprocate help. Friends, cousins, and siblings may have a high likelihood of interacting again in the future, but help to friends does not enhance fitness via the indirect component of inclusive fitness. Thus for a given level of cost, the magnitude of the association between help given and received is expected to be ordered as follows: acquaintances > friends > cousins > siblings (Hypothesis 2). Similarly, I would expect intolerance of temporary imbalances in help given and received would be ordered the same way, i.e. acquaintances > friends > cousins > siblings (Hypothesis 3).

2. Methods

2.1. Subjects

The participants in this study were rural Tibetans living in the village of Gashari. All participants were recruited through haphazard sampling (Bernard, 2011) from the village. There were four major routes through the village. The researcher (MX) started on one route and visited all of the households on that route. If no one was present in the household at the time of visit, the researcher moved on to the next household. The researcher continued until she had visited 12 households on the route. Then she changed to another route and repeated the same sampling process, until all four routes had been covered. The researcher recruited only one participant from each household, based on the availability and willingness of people in the household. The participants were not always the person who opened the door or the head of the household. In total, the researcher visited 48 households, about one quarter of the households in the village. There were three cases in which the participant failed to complete the survey because of emergency or unplanned activity. The final sample had 45 participants, including 27 females (60%) and 18 males (40%). The age of participants ranged from 15 to 63, with a mean of 33.96 ($\pm$ 0.54).

In the study, the researcher provided an introduction to the study and asked questions in Mandarin. A field research assistant (a Tibetan college student) helped to translate Mandarin into local dialect for participants. All participants responded in the local dialect, and the research assistant translated their responses back to Mandarin. The researcher then filled out the survey and took down notes in Mandarin.

2.2. Name the target person

Each participant was asked to respond to questions involving four relationship categories. I generated a random order of four relationships, i.e. sibling, acquaintances, friend, and cousin, and conducted the interview in this order. To avoid the problem of exhausting participants, the interview was divided into two parts, which were