

Altruism in the Wild: When Affiliative Motives to Help Positive People Overtake Empathic Motives to Help the Distressed

David J. Hauser, Stephanie D. Preston, and R. Brent Stansfield
University of Michigan

Psychological theories of human altruism suggest that helping results from an evolved tendency in caregiving mammals to respond to distress or need with empathy and sympathy. However, theories from biology, economics, and social psychology demonstrate that social animals also evolved to affiliate with and help desirable social partners. These models make different predictions about the affect of those we should prefer to help. Empathic models predict a preference to help sad, distressed targets in need, while social affiliative models predict a preference for happy, positive, successful targets. We compared these predictions in 3 field studies that measured the tendency to help sad, happy, and neutral confederates in a real-world, daily context: holding the door for a stranger in public. People consistently held the door more for happy over sad or neutral targets. To allow empathic motivations to compete more strongly against social affiliative ones, a 4th study examined a more consequential form of aid for hypothetical hospital patients in clear need. These conditions enhanced the preference to help a sad over a happy patient, because sadness made the patient appear sicker and in greater need. However, people still preferred the happy patient when the aid required a direct social interaction, attesting to the strength of social affiliation motives, even for sick patients. Theories of prosocial behavior should place greater emphasis on the role of social affiliation in motivating aid, particularly in everyday interpersonal contexts.

Keywords: altruism, prosocial behavior, evolution, social affiliation, empathy

Theories of human altruism in biology and psychology suggest that the motivation to help results from the evolved tendency of species who care for their young to signal need through cues of distress, which naturally evoke care and concern in observers (reviewed in Preston, 2013). As evidence, altricial and vulnerable offspring across mammalian species elicit significant concern and attention from other group members, particularly when crying, distressed, or in danger (e.g., Batson, Lishner, Cook, & Sawyer, 2005; de Waal, 1997). Humans also help when empathy and sympathy motivate them to alleviate a target's distress (Batson, 2011; Batson, O'Quin, Fultz, Vanderplas, & Isen, 1983; Davis, 1983a; Davis, 1983b), when emotional empathy and self–other overlap motivate them to alleviate their own caught distress (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997), or to simply main-

tain a happy mood (Carnevale & Isen, 1986). Moreover, social norms dictate that we should help others in need (Berkowitz, 1972)—a tendency that is reinforced by feelings of “warm glow” that follow from good deeds (Andreoni, 1990; Cialdini & Kenrick, 1976). From these considerations, across species and situations, the human motivation to help is expected to emphasize targets who are distressed and in clear need—those that we empathize with and feel good about helping.

In contrast to these empathy-based theories of altruism in psychology, parallel theories in evolutionary biology suggest that aid is directed at those who are not necessarily needy or distressed, but desirable, cooperative social partners (e.g., Brosnan & de Waal, 2002; Noë & Hammerstein, 1994; Seyfarth, 1977; Tooby & Cosmides, 1996). Thus, as a corollary to the indirect or strong reciprocity models of economists, whereby help is used to improve the reputation of the giver as a collaborator (e.g., Engelmann & Fischbacher, 2009; Fehr & Fischbacher, 2003; Gintis, Smith, & Bowles, 2001), primates are thought to direct aid toward those with better social reputations or access to resources. Such gifts to the popular and powerful—like bags of expensive swag donated to Hollywood celebrities or holiday gift baskets given to bosses and neighborhood lynchpins—presumably benefit the giver if it allows them to enter the valued partner's sphere of influence, through direct return benefits as well as the wide-reaching indirect benefits of social connection. As evidence, both humans and monkeys direct aid toward those with good reputations or desired resources over those with poor reputations or fewer resources (Engelmann & Fischbacher, 2009; Fruteau, van de Waal, van Damme, & Noë, 2011). Humans also go out of their way to display cooperativeness when they want to be selected as future partners (Barclay & Willer,

This article was published Online First December 23, 2013.

David J. Hauser, Stephanie D. Preston, and R. Brent Stansfield, Department of Psychology, University of Michigan.

We thank students from the Winter 2012 Psychology 447 course at the University of Michigan, as well as Daniel Porter, Micaela Martinez-Bakker, Madhuri Natarajan, Aashna Sunderrajan, Roderick Satterwhite, Siang-Chean Kua, Vivian Jiang, Megan McDonald, and Melissa Bennett for their work as confederates and experimenters in the studies. Randolph Nesse, the Research Center for Group Dynamics (RCGD), and the Evolution and Human Adaptation Program (EHAP) at the University of Michigan, as well as the Templeton Foundation also provided support that made this project possible.

Correspondence concerning this article should be addressed to David J. Hauser, Department of Psychology, 3233 East Hall, 530 Church Street, Ann Arbor, MI 48109-1043. E-mail: djhauser@umich.edu

2007), they help to signal a desire to enter into communal, cooperative relationships (Clark & Mills, 2011), and they pay more attention to opportunities to help desired partners (Clark, Mills, & Powell, 1986). Thus, human and nonhuman primates alike appear to use aid for social affiliation motives, to foster cooperative partnerships that benefit survival and success in group-life.

These two views of altruism have existed side by side for decades and theoretically can both be correct. Humans could have evolved to help distressed or beneficial targets whenever it yields an eventual benefit back to the giver, even if the type of benefit or evolutionary trajectory differs from case to case. However, these two theories actually make divergent predictions for which type of emotion in targets best motivates helping. Empathy-based theories overtly predict that aid should be directed at distressed people while affiliation-based theories suggest that aid should be directed at happy or positive people, as this latter affect would herald a valuable social relationship that could be fostered through helping.

Understanding the role of target affect on others' prosocial response is important and valid, as target affect is known to influence others' motivation to help. Emotional displays generally signal valuable information and spur emotional reactions in observers (Keltner & Haidt, 1999; Van Kleef, 2009; Van Kleef, De Dreu, & Manstead, 2010). For instance, displays of negative emotions in targets like distress and sadness trigger inferences of need as well as empathy and sympathy in observers, which, in turn, promote offers of aid, particularly for interdependent targets that we would benefit from helping (Clark, Pataki, & Carver, 1996; see reviews in Preston, 2013, and Preston & de Waal, 2002). However, such distress does not always promote action, as many observers avoid distressed targets, particularly when the distress is high or becomes contagiously caught, or when the observer feels incapable to help or can easily escape (e.g., Batson et al., 1983; Davis, 1983a; Preston, Hofelich, & Stansfield, 2013). Thus, even the target distress that should spur aid in empathy-based frameworks is fragile and can produce avoidance at times.

In contrast, data relevant to the affiliation-based framework suggest that a target's positive emotion connotes success, popularity, and social integration—beneficial traits in a social partner that may motivate observers to help. For example, lay inferences associate displays of happiness with positive reputational characteristics like popularity (Rosenberg, Nelson, & Vivekananthan, 1968). In addition, people universally and rapidly assess others' interpersonal warmth and associate it with cooperativeness (Fiske, Cuddy, & Glick, 2007). Targets displaying happiness are also better liked (Clark & Taraban, 1991) and are inferred to be highly affiliative and dominant (Knutson, 1996; Montepare & Dobish, 2003). People also typically feel more safe, open, and cooperative when they experience contagious positivity from others, feelings that may proximately promote action on their behalf (see Van Kleef et al., 2010).

A target's positive affect not only implies valued traits but also better objective outcomes for the target that could potentially extend to those who help them. For example, happy people have higher incomes, better work performance, and enjoy more successful friendships and marriages (reviewed in Lyubomirsky, King, & Diener, 2005). Subjective well-being is also positively associated with socioeconomic (Diener, Suh, Lucas, & Smith, 1999) and sociometric (Anderson, Kraus, Galinsky, & Keltner, 2012) status—the latter of which predicts fewer long-term adjustment prob-

lems in children (Ollendick, Weist, Borden, & Greene, 1992). Finally, happier individuals also often have higher self-esteem, which sociometer theory links to higher social status and value as a group member (Leary & Baumeister, 2000). Research in nonhuman primates also demonstrates that more socially adept chimpanzees can better obtain and maintain social power, even against younger and stronger insurgents, as their popularity garners them support in conflicts from other group members (de Waal, 1990).

Taken together, we assume that observers of happy targets would at least implicitly view them as more desirable social partners, which would in turn motivate them to help. While it has been established that human and nonhuman primates help as a form of social affiliation (reviewed above), we do not currently know if positive affect is sufficient to generate this motivation. Moreover, we do not know the strength of this affiliative motivation and how it compares in strength or frequency to the empathic motivation to help sad, distressed targets. A proximate drive to affiliate with positive targets could be instantiated in multiple ways and probably is. For example, perceiving another's positive, happy energy could implicitly foster aid through simple, direct enhancements to the motivation to approach, to one's level of energy or sense of optimism; it could also explicitly foster strategic aid to desired partners when there is time to plan a response. We are not testing those proximate mechanisms here. We are also not attempting to prove the ultimate view that such an affiliative drive to help happy people would benefit the helpers in the longer run. The primary goal of the current research is simply to establish that people are actually motivated to help positive, happy people and that this effect is associated with a social affiliation motive.

The Current Research

We hypothesized that positive affect in a target could elicit the social affiliation motive to help. We further posited that the affiliative drive to help positive or happy people could be more powerful or frequent in daily acts of helping than the more commonly studied empathic motivations to help sad, distressed people. Despite the fact that we are surrounded by people in dire need—locally and globally—we probably do not directly encounter these people and their pleas for help as routinely as we encounter those who are not necessarily in great need or distress but nonetheless present opportunities to give mundane forms of aid, like holding the door open, doing them a small favor, or comforting them in conversation. Moreover, when people do overtly show distress and need it is known to produce conflicting motivations in observers, to help as well as to escape the uncomfortable situation (Toi & Batson, 1982). In contrast, positivity appears to generally engender approach, unless the other's stature or dominance prohibits it (de Waal, 1990). While these facts suggest that affiliative motives may trump empathic ones in daily life, empathic motivations are theoretically expected to prevail any time the situation moves beyond simple daily aid and includes conditions that mimic the offspring-care context in which empathic motivations are thought to have evolved: specifically, when the target is vulnerable, bonded, interdependent and requiring genuine aid that the observer can provide (Brown & Brown, 2006; Preston, 2013; Preston & Hofelich, 2012). Thus, we additionally predicted that observers would switch to preferring sad over happy targets when the target was in clear, dire, immediate need of help that the observer could provide,

particularly when the aid could be given without distressing the potential altruist. In sum, extensive data already demonstrates that people are motivated to help sad, distressed people in need (i.e., empathy-based motives; e.g., Batson, 2011; Davis, 1983a; Eisenberg & Miller, 1987). However, the motivation to help happy, positive individuals who are not in acute need has not been studied. We do not know if there is a link between social affiliation motives and the drive to help happy people or whether this motivation is stronger than the empathic motivation to help distressed people when the two are directly compared.

We first conducted three field studies at public buildings on a University campus to compare the degree to which people would hold the door for a confederate stranger displaying happy, sad, or neutral affect, while manipulating the degree to which the sad affect appeared to signal real need across studies. Happy targets were expected to receive more aid than sad ones, particularly when there was no clear sign that they needed help. A fourth study examined aid to hypothetical hospital patients to show that people would instead prefer to help sad targets when their need was salient but that even in such cases, happy people would still be preferred when the aid required direct social contact—when the target distress would be more aversive. This study also measured how observers perceived the personality and need of each target type, to confirm the presence of social affiliation motives when helping the happy patient and empathic ones when helping the sad one. Taken together, the four studies demonstrate that people prefer to help happy, positive, and potentially beneficial social targets when the aid requires a social interaction and need is not salient, but prefer sad targets who appear to be in greater need when the need context is salient and help can be provided indirectly.

Field Studies 1–3

Our first three studies were designed as preliminary tests of the social affiliation hypothesis, which predicted that people would be more likely to help happy over sad or neutral targets in a real-world social context of daily helping—holding the door for a stranger in public. This is a common prosocial act with small but clear costs for the actor (Santamaria & Rosenbaum, 2011), which could theoretically be elicited by empathic or affiliative drives. We measured the extent to which people in public places (the “participants”) held the door open for confederates pretending to be happy, sad, or neutral during a cell-phone conversation that ended just as participants were followed inside. After initial support for the social affiliation hypothesis in Study 1, two additional studies tested the strength of the preference for happy participants by examining door holding in contexts that should actually give greater priority to the sad targets through indicating more genuine need. Thus, Study 2 was conducted at a hospital while Study 3 was conducted at university health services and added a facial bandage to confederates to further signify the potential relevance of their affect to their need state. If such aid is driven more by empathy-mediated helping, participants should hold the door more for sad than happy or neutral targets. However, if aid is driven more by social affiliation motives, participants should hold the door more for happy than sad or neutral targets.

Method

Three studies using similar procedures observed 823 passersby at public buildings at a large Midwestern university. Confederate experimenters stood 8 m from a nonautomatic exterior doorway while pretending to be engaged in a cellphone conversation. Confederates waited for a lone passerby to approach who was not distracted (using the phone or headphones). As the participant passed, the confederate displayed a scripted affect of happiness, sadness, or neutral affect in their cellphone conversation (order randomized in blocks of three). The sad (happy) script read: “It’s so terrible (great) . . . I’m so bummed (happy) . . . Ok . . . yeah . . . I’ve gotta go (!).” The neutral script read: “I know . . . Yeah . . . Yeah, okay . . . Yeah, that’s true . . . Ok . . . yeah . . . I’ve gotta go.” The confederate then followed the participant into the door at a distance of 4 m.

A second experimenter recorded the participant’s gender and door holding for the confederate in ascending categories of effort determined from pilot data collection. Participants who simply opened the door for him or herself without stopping or exerting any extra effort for the confederate were put in the *no hold* category. Participants who, while walking through the door, looked back at the confederate and extended a hand toward the open door but did not touch it were put in the *fake push* category. Participants who, while in the doorway, stopped and gave the door an extra push so that it would remain open longer for the confederate, were put in the *push* category. Participants who stopped and waited in the doorway, holding the door open for the confederate, were put in the *hold* category. Finally, participants who opened and stood behind the door, allowing the confederate to pass through first, were put in the *usher in* category.

Study 1 was conducted at doorways of six public university buildings by 33 confederates (23 female). To increase aid to sad targets, Study 2 was conducted by four confederates (two female) at an exterior doorway of the university hospital, where sadness may seem more appropriate and to signal genuine need. To further increase helping for sad targets, Study 3 was conducted at the exterior entrance to the university health services building by five confederates (three female), augmenting the need context with a signal of individual need on the confederate applied to all three conditions (a facial adhesive bandage that suggested that they were visiting for medical care and not unrelated reasons). All experimenters (confederates and observers) were blind to hypotheses and were students (excepting one male in Study 2), as were most participants in studies one and three; Study 2 included a variety of community adult participants at the hospital. The research design was approved by the Institutional Review Board at the University of Michigan.

Results and Discussion

Who receives more help, the happy or the sad? Since our dependent variable of door holding effort was not normally distributed (Table 1), we conducted nonparametric Mann-Whitney U tests in each study to compare median door-holding effort for happy versus sad targets. At public university buildings in Study 1, participants held the door more for happy (median effort = hold) over sad (median effort = push) confederates ($U = 4,792$, $z = -2.49$, $p = .012$, $r = .17$), suggesting that social affiliation motivates aid in this context. At the hospital in Study 2, where the

Table 1
Door Holding Effort by Study and Confederate Emotion

Variable	Study 1*			Study 2*			Study 3		
Location	campus buildings			university hospital			university health center		
Location signal	neutral			need			need		
Confederate signal	neutral			neutral			need		
N (females)	311 (154)			252 (147)			260 (175)		
	Neutral	Sad	Happy	Neutral	Sad	Happy	Neutral	Sad	Happy
Door holding									
no hold	31%	31%	19%	37%	44%	19%	38%	33%	34%
fake push				23%	17%	30%	9%	9%	6%
push	32%	31%	29%	18%	24%	33%	15%	18%	22%
hold	34%	34%	44%	21%	15%	17%	38%	40%	37%
usher in	3%	4%	8%	1%	0%	1%	0%	0%	1%

Note. Percentages reflect the observations per study, per affect, per door-holding effort category (Study 1 did not record fake pushes). Bolded percentages reflect the median level of door holding for each condition (medians are recommended for this statistic). Studies with asterisks had significant differences between sad and happy affect on door holding at the $p < .05$ level, Mann-Whitney U .

sad affect would be more likely to be construed as an appropriate signal of need, participants still held the door significantly more for happy (median effort = push) than sad (median effort = fake push) confederates ($U = 2,922$, $z = -2.58$, $p = .010$, $r = .20$), again indicating that social affiliation underlies the aid preference. At the university health services building in Study 3, where the context and confederates both signaled a genuine cause for sadness and need, happy and sad confederates received equal levels of door holding (median effort = push for both conditions; $U = 3,799$, $z = -.09$, $p = .927$), but sad ones were still not prioritized.

Aid relative to neutral confederates. Additional follow-up comparisons included the neutral condition to determine if happy confederates were actually helped more than usual or sad confederates were actively avoided. Happy confederates were indeed helped significantly more than neutral ones in Study 1 ($U = 4,308$, $z = -2.55$, $p = .011$, $r = .18$) and were helped marginally more than neutral in Study 2 ($U = 2,941$, $z = -1.54$, $p = .062$ [one-tailed], $r = .12$). Meanwhile, sad confederates were helped at equal levels to neutral in Studies 1 ($U = 5,368$, $z = -.07$, $p = .948$) and 2 ($U = 3,158$, $z = -.94$, $p = .356$), suggesting that participants were not actively avoiding sad targets as much as they were motivated toward happy ones.

Analyses combined across Studies 1–3. Helping behavior, especially in a social affiliation framework, is likely to be affected by multiple variables besides affect, particularly gender. For example, a subset of social signaling theories suggest that people help to impress potential mates, which predicts greater door holding for the opposite sex, particularly for male helpers (Barclay, 2010; Goldberg, 1995; Van Vugt & Iredale, 2013). Combinations of participant and confederate gender could not be included in preceding analyses because it would detrimentally impact the power of tests that already included three emotion conditions. Therefore, a logistic regression was conducted that combined data across all three studies and included confederate affect, confederate gender, participant gender, study number, and their interactions (contrast coding in Table 2). To further increase the power of these tests, the model predicted door holding as a dichotomous variable representing present (fake push, push, hold, usher in) or absent (no hold) holding.

Using this model, the preference reported above for happy over sad targets was replicated ($\beta = .35$, Wald = 11.58, $p = .001$, odds ratio [OR] = 1.42) and did not simply reflect an artifact of gender-based helping because the preference was not moderated by confederate gender ($\beta = .01$, Wald = .02, $p = .898$) or participant gender ($\beta = .08$, Wald = .62, $p = .430$; from two-way interactions with sad versus happy affect), nor was it moderated by a three-way interaction with confederate and participant gender ($\beta = .05$, Wald = .249, $p = .618$). The amelioration of the happy preference in Study 3 was also replicated, exhibited by an interaction between happy versus sad confederates and study number due to the fact that the preference for happy targets was significant for the first two studies ($\beta = .45$, Wald = 15.19, $p < .001$, OR = 1.56) but not the third ($\beta = -.03$, Wald = 0.05, $p = .831$; two-way interaction of affect by Studies 1 and 2 vs. Study 3, $\beta = -.16$, Wald = 4.83, $p = .028$, OR = .854). Thus, sad targets could only compete with happy ones when they indicated individual need at a health-care building. In addition to replicating these effects, we additionally found that males did hold the door more for females than for males ($\beta = -.28$, Wald = 5.58, $p = .018$, OR = .757), while females helped females and males equally ($\beta = .12$, Wald = 1.47, $p = .226$; two-way interaction between confederate and participant gender, $\beta = -.20$, Wald = 5.49, $p = .019$, OR = .817).

Table 2
Orthogonal Contrasts on Variables in Combined Study Logistic Regression

Variable	Groups and contrast codes		
Affect	Sad	Happy	Neutral
Sad vs. happy	−1	+1	
Sad & happy vs. neutral	+1	+1	−2
Study	Study 1	Study 2	Study 3
1 & 2 vs. 3	−1	−1	+2
1 vs. 2	−1	+1	
Participant gender	Female	Male	
Female vs. male	−1	+1	
Confederate gender	Female	Male	
Female vs. male	−1	+1	

There were also two theoretically uninteresting interactions in the full logistic regression model: one for neutral versus sad and happy affect by confederate gender ($\beta = .12$, Wald = 3.86, $p = .049$, OR = 1.125) and another for the neutral versus sad and happy affect by Study 1 versus Study 2 by confederate gender ($\beta = .15$, Wald = 3.85, $p = .050$, OR = 1.164). All other main effects and interactions failed to reach significance ($ps > .08$).

These results suggest that social affiliation motivations not only predict real-world helping but that they are even more prominent and robust than empathic motivations, at least in this context of simple daily aid. Happy confederates were offered more aid than sad and neutral confederates, even at a hospital where sadness would be more appropriate and could signal a genuine need for support. Sad targets did receive similar levels of aid to happy ones when both the context and the confederate signaled potential need, but they were still not preferred as predicted by empathy-based theories of helping. Indeed, the median level of aid in Study 3 for sad targets was still even lower after applying the facial adhesive bandage at a healthcare center than it was for happy participants at typical campus buildings. In addition to the overall preference for positive targets, the drive to affiliate with potential mates was also confirmed (Barclay, 2010; Goldberg, 1995; Van Vugt & Iredale, 2013), as males helped women more than men; importantly, this mate-signaling effect did not explain the overall preference for happy targets. These findings need to be integrated into a larger view of prosocial behavior, which acknowledges its role both as a form of aid stirred by compassion as well as a drive to affiliate with positive social partners.

While our field study method was efficient, reliable, and relevant, there are a few issues that it cannot address, due to the context and the fact that we did not have information about the givers' motivations or perceptions of the targets. These were addressed in the final study, which used an online experimental protocol that was more consequential and gave greater weight to the empathic motivation to help sad targets.

Study 4

The final study had three goals. First, we wanted to examine a different helping outcome from door holding—one that is more prototypical for altruism studies, enhances the possible role of empathic motivation, is more consequential than door holding, and has more obvious implications for social affiliation. Participants in this study read descriptions of hypothetical interactions with two patients at a hospital—a happy and a sad one—followed by a decision to help one of them. The conversations were derived from actual interviews with hospital patients, which were previously rated by participants to reflect these two diverging emotions despite depicting patients with similar levels of illness severity (i.e., *distraught* vs. *resilient* patients from Preston et al., 2013). This allowed us to demonstrate wider generalizability for the preference to help happy over sad targets than just door holding.

Next, we wanted to validate our stated assumption that happy targets are helped more *because* they are viewed as valuable social partners, in support of the social affiliation hypothesis. The prior studies could not support this because participants were only observed. Thus, the current study added impression ratings of the happy and sad patients to confirm that aid to happy patients was associated with increased perceptions of target success and related

benefits while aid to sad patients was associated with higher perceived need and felt empathy.

Finally, we wanted to demonstrate an expected boundary condition for the preference for happy targets demonstrated in Studies 1–3. Theoretically, we assume that happy people are helped more than sad when need is low but that sad people will be helped more when they are perceived to be in greater real need, particularly when the observer can help without becoming distressed or endangered (see Preston, 2013). Operationalized within the setting of the patient scenarios, since hospital patients are in more clear need than those in the prior studies, and since sadness makes patients appear sicker and in greater need (Preston et al., 2013), we assumed that people would prefer to help the sad over the happy patient in the current study in which need was high for both affect conditions. However, this preference was still expected to depend upon the type of aid, with the preference to help sad people in need being more pronounced when the aid does not require a potentially stressful social interaction and the preference to help happy people reemerging when the aid does require a social interaction.

Giving money is a common measure of help in the literature, which we assume is particularly effective in experiments with distressed targets because it minimizes the conflict that people feel about approaching distressed targets (who may distress the helper or be hard to assist). Conversely, the emotional support of sitting and conversing with a patient is a common form of aid in the real world (Schaefer, Coyne, & Lazarus, 1981). Importantly, this conversational aid may be avoided for sad patients because of the potential for contagious distress; in contrast, it may be more appealing for happy patients, who can be helped through both empathic and affiliative motivations without evoking significant conflict. Therefore, we expect that observers will be more drawn to help happy patients with conversational aid, demonstrating the strength of social affiliation motivations, which can even drive aid in a context of high need, toward a target who appears less sick and in need of aid (Preston et al., 2013).

In sum, participants read descriptions of interactions with a happy and a sad hospital patient, who were in an otherwise identical situation, and decided which they preferred to help, for both monetary and emotional forms of aid. We assumed that observers would, overall, shift to preferring to help the sad patients in this study because they would appear to be in greater need and would elicit strong empathic motivations that were minimized in the prior field studies. However, we also predicted that the preference to help the sad patient would only be pronounced for monetary giving, when the observer can limit their direct interaction with the sad patient. When the aid is emotional and conversational, we expected observers to shift to preferring to help the happy patient, who could satisfy both an empathic and a social affiliation motivation to give without eliciting concerns about emotional contagion or an inability to help. Finally, participants were expected to help sad patients to the degree that they perceived them as having qualities associated with empathy-based altruism and were expected to help happy targets when they perceived them as having social affiliative benefits.

Method

Participants. One hundred fifty-eight English-speaking women workers from Amazon Mechanical Turk (age range:

18–72 years) participated in the study in exchange for 30 cents. Women only were recruited as participants to avoid effects caused by cross-gender helping differences and because the patient stimuli all depicted women. Participants were directed to a survey on hypothetical interactions, and first completed a hypothetical interaction task, followed by aid preference questions, and finally the patient character impression ratings and demographic information.

Scenarios. In the hypothetical interaction task, participants were provided with two transcripts and asked to imagine this hypothetical scenario: while visiting a relative in the hospital who had recently given birth, the participant encounters the patient in the hospital cafeteria where the two of them strike up a conversation about their similar food choices. In one transcript, the patient is sad and distressed about her illness and multiple times breaks into tears and appears sad. In another transcript, the patient is struggling but is more positive about her situation, joking while depicting similar struggles to keep up with daily life despite her illness. In both transcripts the illness was undefined and similar levels of disability were conveyed in the nonaffective cues. The order of the transcripts was counterbalanced between participants. The transcripts were of similar length and contained similar numbers of exchanges and emotional cues (distraught/resilient: 268/278 words; 18/22 exchanges; 13/11 emotional cues; full texts are in the [Appendix](#)).

We also manipulated the social distance of the target between subjects, in case the preference for happy targets only applies to people in the participant's local social network. Approximately half of the interactions were described as being with a stranger in a distant hospital and the other half described someone who shared a mutual acquaintance in the participant's home town (assignment randomized). This social network manipulation did not influence the results and is not discussed further.

Help elicitation. After reading both scenarios, participants responded to questions assessing which of the two patients they would prefer to help for different types of aid (order counterbalanced). All items were forced choice to focus effects on relative preferences. The low social interaction question asked the participants to indicate which patient they would prefer to give \$20 to help cover their copay, while the high social interaction question asked participants to indicate which patient they would prefer to sit and talk with for 30 min while she waited for the doctor. Two additional questions asked about preferences to help patients by calling their cell phone company to determine why the patient's phone was deactivated or to assist with carrying belongings to their car. The last two types of help also reflected a relatively low level of social interaction with the patient, produced similar results to the monetary question, and are not discussed further.

Patient impression ratings. After selecting their help preferences, participants responded to a matrix of rating scales concerning their trait impressions of each patient on a scale from 1 (*not at all*) to 7 (*very much*). The order of items relevant to the empathy-altruism versus social affiliation motives were interspersed and presented in a fixed order across participants. To assess the degree to which sad patients were perceived as having qualities associated with empathy-based altruism, participants were asked to rate both patients on four items ("To what extent did the patient: make you feel distressed, make you feel sympathetic or compassionate, seem like she was in need of help, and seem sick in terms of physical illness?"). To assess the degree to which happy patients were

helped because they were perceived as successful and potentially beneficial social partners, participants rated the patients on eight items ("To what extent did the patient seem: like a person you'd like to get to know further, likeable, friendly, like she would be able to return the favor later if you helped her, successful, powerful, warm, competent?"). These dimensions were selected because competent people are also expected to be cooperative and capable (Fiske et al., 2007), likeable and friendly people are considered more positive ingroup members (Rosenberg et al., 1968), power and success are known markers of status (Noë & Hammerstein, 1994), and reciprocity directly measures the expected benefit from helping. Perceptions of the extent to which one would like to get to know a target directly measured the desirability of the target as a future social partner (Clark & Mills, 2011).

Results and Discussion

When do people prefer to help sad versus happy patients?

Because the patient scenarios resemble prototypical empathy-altruism contexts of aid, we expected participants to prefer to help the sad, distraught target, particularly when the aid did not require a social interaction. We tested this hypothesis with a generalized linear model, predicting patient aid choice (dichotomous: 1 = sad, 2 = happy) by the degree of social interaction (within subject: low, high). As expected, there was a significant effect of degree of social interaction ($\beta = .784$, $SE = .232$, Wald = 11.45, $p < .001$). More people preferred the sad target (67%) when the aid required a low social interaction monetary donation but more preferred the happy target (52%) when it required a high social interaction conversation. Thus, as expected, the preference for sad targets is more pronounced in contexts of real need, particularly when the helper does not have to interact as much with them; in contrast, aid involving a deeper, longer social encounter enhances the role of social affiliation motives for helping.

Trait impressions associated with aid preferences. To measure the impact of the targets' personal traits on participants' aid preference, we computed difference scores (preferred minus unpreferred) for each impression rating. Then we created separate subscores for empathic and social-affiliation motives by averaging together all relevant difference scores within a class (empathic: distress, sympathy, in need of help, sick; $\alpha = .752$; average interitem $r = .46$; social affiliation: would like to know further, likeable, friendly, likely to reciprocate, successful, powerful, warm, competent; $\alpha = .900$; average interitem $r = .55$). To determine whether each motive predicted the preference for the relevant patient type, a logistic regression predicted patient preferences (as a dichotomous outcome, 1 = sad, 2 = happy) from each impression index score (empathy-altruism, social affiliation, entered simultaneously to model each separately as well as their interaction).

For the low social interaction monetary aid, which prioritized sad patients, we did see the expected effect of empathic qualities on the preference for the sad patient ($\beta = -.741$; main effect of empathy-altruism impression index: Wald = 12.635, $p < .001$, OR = .477). Thus, seeing the sad patient as more distressed, sympathetic, in need, and sick directly increased the likelihood of offering her money. For this same monetary aid, the effect of social affiliation qualities on the preference for happy patients was not significant but was still biased toward a preference to offer the

happy patient more money ($\beta = .221$; main effect of social affiliation impression index: Wald = .1443, $p = .230$). Thus, at least when the context is one of genuine need, impressions of the target as needing and deserving aid appear to drive the preference for sad targets. The two impression indices did not interact ($\beta = .002$, Wald = .001, $p = .982$).

For the high social interaction conversational aid, which shifted the preference toward happy patients, we did observe the expected effect of perceived social affiliation qualities on the preference for happy patients ($\beta = .610$; main effect of social affiliation impression index: Wald = 7.827, $p = .005$, OR = 1.841). Thus, seeing the happy patient as more likeable, friendly, successful, powerful, warm, competent, and as someone you would like to know better and expect to reciprocate directly increased the likelihood of offering to spend time with her. For this conversational aid, the effect of empathic qualities also significantly predicted greater offers to sad patients ($\beta = -.517$; main effect of empathic impression index: Wald = 7.705, $p = .006$, OR = .597). The two impression indices did not interact ($\beta = .074$, Wald = .727, $p = .394$).

Therefore, in a relatively high need hospital context in which the patient targets both displayed need and asked for help, the empathic motivation to help sad patients largely predominated. The sad patients received the majority of monetary aid and almost equal levels of conversational aid; moreover, the preference to help the sad patients could be predicted from the degree to which they were perceived empathically. These findings do assert the power of distress and subsequent empathy for directing aid in a context of clear, high need. Of course aid to sad patients was still predicted by empathic ratings even in the conversation condition, where they were not overall more preferred; this would happen if participants who were overwhelmed or unconvinced by the sad patient's need also rated them as unsympathetic and voted for the happy patient—leaving only those observers who were not overwhelmed and did feel sympathy to prefer the sad targets. Regardless, our results still attest to the existence and power of social affiliation motivations to help, because the aid preference shifted in favor of the happy patients when the aid required a deeper social interaction—an effect that is particularly striking given that the happy patients were perceived as needing less help as a result of their positive affect. Of course, these are hypothetical offers of help in a fictional online scenario. However, concerns about participants responding randomly, not taking the task seriously, viewing the scenarios as artificial, or wanting to appear good are not particularly damaging because they do not predict our specific pattern of results (with sad patients only being preferred for monetary aid and happy ones for conversational aid). Our findings even go against common proscriptions in society to direct aid where need is higher (Berkowitz, 1972) as participants gave more conversational aid to happy participants despite rating the sad one as being sicker and in greater need. These results also replicate aspects of a prior study that was conducted both in the lab and online (Preston et al., 2013), further attesting to their validity.

Across studies, we can assert that social affiliation motives can be elicited by positive affect in others and does promote giving, specifically when need is not salient or when doing so still feels useful and avoids the discomfort that can accompany

distress. These social affiliation motives appear to operate alongside empathic ones, with the latter predominating choice and allowing distressed targets to receive more help when their need is salient and the observer empathizes with them. Of course, these inferences require an examination of the full pattern of results across all four studies; we never directly compared the motivation to help happy versus sad people who did versus did not need help in question, within one study. However, Study 4 does demonstrate that even in a situation where people would predominantly predict empathically motivated aid, social affiliation motives still persist and can even prioritize aid for happy targets.

General Discussion

The current studies demonstrate that social affiliation motivations drive people to prefer to help happy, positive targets in daily life, particularly when need is not a salient feature of the situation and the aid involves a direct interaction. In contrast, empathy-based motivations drive people to prefer to help sad or distressed targets when the affect is associated with clear need and can be expected to predominate when aid can be delivered in an indirect manner, like donating money (the form of giving most often used by charities and in research on altruism).

The effect of target happiness on people's desire to help was robust, as happy targets received more real-world door holding across contexts, even at a hospital where their sad affect could seem like an appropriate signal of real need. Even when the sad targets were at a clinic and signaling individual need with a facial adhesive bandage, they still did not receive more aid than happy targets. In a more consequential setting, where the targets were hypothetical hospital patients, the happy patients were still preferred as long as the aid required a direct social interaction. Attesting to our interpretation of the behavior as one motivated by the drive to affiliate with the target, the preference for happy patients was predictable from the combined degree to which participants wanted to know the target better and saw them as likeable, friendly, warm, powerful, competent, successful and likely to reciprocate. These positive trait impressions were highly intercorrelated, suggesting that there is not one single explicit inference about happy people that drives people toward them. Most likely, these factors cluster together in a single stable state in the most desired social partners, although some may be more influential than others when separated out. On the basis of these results, we propose that social affiliation motives strongly influence prosocial behavior in everyday contexts—contexts that usually involve direct interactions within our social network.

Of course, the current methods can only affirm when people prefer happy, positive social partners; they cannot determine the proximate mechanism for this preference. Thus, as shown in prior work (Carnevale & Isen, 1986), people could have been driven to help positive, happy people in our experiments through a contagious sense of positivity, which could operate through direct affordances, increased security and openness, or mood maintenance mechanisms (see Van Kleef et al., 2010, for a review of ways emotion influences cooperation). People could also be driven to help positive, happy people through a more fundamental drive to approach rewarding stimuli (Berridge &

Robinson, 2003; Chen & Bargh, 1999; Preston, 2011) or through explicit or implicit expectations about the value of the relationship with the other (e.g., Brosnan & de Waal, 2002; Engelmann & Fischbacher, 2009; Fehr & Fischbacher, 2003; Gintis et al., 2001; Noë & Hammerstein, 1994; Tooby & Cosmides, 1996). Likely, most—if not all—of these mechanisms operate in parallel and sustain behavior that is adaptive and rewarding. Without significant deliberation, social species could have evolved to approach positive, desired, or valued social targets in much the same way that they approach attractive food or mates. Emphasizing that such beliefs need not be explicit, door holding decisions are made quickly and without extensive deliberation (Santamaria & Rosenbaum, 2011) and even insects and birds with minimal long-term planning abilities prefer to help beneficial social partners (see Noë & Hammerstein, 1994). In this way, helping behavior could potentially be viewed as a way to simply prolong contact with intrinsically rewarding targets.

Our effects should not be taken to mean that distress and need do *not* motivate aid. Empathy-based motives are theoretically expected to be prioritized over social affiliation when a distressed target is vulnerable, interdependent, and immediately needs help that the observer can offer (Preston & Hofelich, 2012; Preston, 2013). Our own prior work found that people offered more money and self-reported generic help, on average, to *distracted* over *resilient* hospital patients (those used to create the scenarios in Study 4), a preference that was associated with an increased perception of the *distracted* women as sicker and in greater need (Preston et al., 2013). We replicated those effects in Study 4 and additionally showed that the preference could be reversed when the aid required a direct social interaction. The fact that sad targets were not helped more than neutral ones in the first three field studies demonstrates that the drive to help sad targets does not generalize from hospital patients to strangers in public who are not in dire need, even if their affect is directly caught. According to the emotions as social information model (Van Kleef, 2009; Van Kleef et al., 2010), this could occur because the public context is either not encoded as cooperative, is encoded as competitive, or because the potential altruists engage in epistemic processes that produce negative inferences about people displaying sadness in public without clear need. However, the fact that people prefer to help happy targets in public means that this context is at least potentially cooperative and/or that people quickly and spontaneously infer need and trait dispositions from targets' affect (as in Knutson, 1996; Montepare & Dobish, 2003; Tiedens, 2001).

We assume from the pattern of results that, all things being equal, people prefer to help positive and desirable social partners over those exhibiting sadness or distress. The greatest aid should be directed toward positive, desirable social partners in genuine need, even in the presence of less desired targets in greater distress or need, or equally desired targets who are not in need. However, temporary genuine need should drive aid when appropriate toward distressed targets, particularly when they are sympathetic, the aid will not endanger or distress the giver, and it can occur without socially binding them to the target. For example, people may prefer to drive clear across town to help a valued acquaintance move furniture for a whole morning before taking 10 min to write a nominal check to help

starving children in Africa, both of which they will do before offering to help a frazzled and distressed coworker with her project or an irascible aging neighbor with his groceries. These examples further indicate that the phenomenon may not be limited to inconsequential acts of helping like briefly holding the door, but extend to larger life priorities, with important consequences for interpersonal and international aid.

Distress and need are clearly not the only elicitors of help in the real world, and they may not even be the most common. A more parsimonious overarching theory of altruism should not assume that people are driven to help positive or distressed others *per se* but that they are driven to help both types in specific contexts that are associated with benefit to both parties, whether over the shorter course of the lifespan or the longer course of human evolution (see also Van Kleef et al., 2010). By taking this step back, we can merge empathic and affiliative views of altruism into one larger sociocultural view that also accommodates other more specific theories of altruism including those involving the “warm glow” (Andreoni, 1990) or positive affect (Isen & Levin, 1972), and strong reciprocity or social signaling frameworks (Barclay & Willer, 2007; Clark & Mills, 2011; Gintis et al., 2001; Noë & Hammerstein, 1994). By increasing research into social affiliative motives to help, particularly on how they interact with empathic motivations and are implemented at the proximate level, we can understand prosocial behavior as a component of our larger, interwoven social lives.

References

- Anderson, C., Kraus, M. W., Galinsky, A. D., & Keltner, D. (2012). The local-ladder effect social status and subjective well-being. *Psychological Science*, 23, 764–771. doi:10.1177/0956797611434537
- Andreoni, J. (1990). Impure altruism and donations to public goods: A theory of warm-glow giving. *The Economic Journal*, 100, 464–477. doi:10.2307/2234133
- Barclay, P. (2010). Altruism as a courtship display: Some effects of third-party generosity on audience perceptions. *British Journal of Psychology*, 101, 123–135. doi:10.1348/000712609X435733
- Barclay, P., & Willer, R. (2007). Partner choice creates competitive altruism in humans. *Proceedings of the Royal Society B: Biological Sciences*, 274, 749–753. doi:10.1098/rspb.2006.0209
- Batson, C. D. (2011). *Altruism in humans*. New York, NY: Oxford University Press.
- Batson, C. D., Lishner, D. A., Cook, J., & Sawyer, S. (2005). Similarity and nurturance: Two possible sources of empathy for strangers. *Basic and Applied Social Psychology*, 27, 15–25. doi:10.1207/s15324834baso2701_2
- Batson, C. D., O'Quin, K., Fultz, J., Vanderplas, M., & Isen, A. M. (1983). Influence of self-reported distress and empathy on egoistic versus altruistic motivation to help. *Journal of Personality and Social Psychology*, 45, 706–718. doi:10.1037/0022-3514.45.3.706
- Berkowitz, L. (1972). Social norms, feelings, and other factors affecting helping and altruism. *Advances in Experimental Social Psychology*, 6, 63–108. doi:10.1016/S0065-2601(08)60025-8
- Berridge, K. C., & Robinson, T. E. (2003). Parsing reward. *Trends in Neurosciences*, 26, 507–513. doi:10.1016/S0166-2236(03)00233-9
- Brosnan, S. F., & de Waal, F. B. M. (2002). A proximate perspective on reciprocal altruism. *Human Nature*, 13, 129–152. doi:10.1007/s12110-002-1017-2
- Brown, S. L., & Brown, R. M. (2006). Selective investment theory: Recasting the functional significance of social bonds. *Psychological Inquiry*, 17, 1–29. doi:10.1207/s15327965pli1701_01

- Carnevale, P. J., & Isen, A. M. (1986). The influence of positive affect and visual access on the discovery of integrative solutions in bilateral negotiation. *Organizational Behavior and Human Decision Processes*, 37, 1–13. doi:10.1016/0749-5978(86)90041-5
- Chen, M., & Bargh, J. A. (1999). Consequences of automatic evaluation: Immediate behavioral predispositions to approach or avoid the stimulus. *Personality and Social Psychology Bulletin*, 25, 215–224. doi:10.1177/0146167299025002007
- Cialdini, R. B., Brown, S. L., Lewis, B. P., Luce, C., & Neuberg, S. L. (1997). Reinterpreting the empathy–altruism relationship: When one into one equals oneness. *Journal of Personality and Social Psychology*, 73, 481–494. doi:10.1037/0022-3514.73.3.481
- Cialdini, R. B., & Kenrick, D. T. (1976). Altruism as hedonism: A social development perspective on the relationship of negative mood state and helping. *Journal of Personality and Social Psychology*, 34, 907–914. doi:10.1037/0022-3514.34.5.907
- Clark, M. S., & Mills, J. R. (2011). A theory of communal (and exchange) relationships. In P. M. Van Lange, A. W. Kruglanski, & E. Higgins (Eds.), *Handbook of theories of social psychology* (Vol. 2, pp. 232–250). Thousand Oaks, CA: Sage.
- Clark, M. S., Mills, J., & Powell, M. C. (1986). Keeping track of needs in communal and exchange relationships. *Journal of Personality and Social Psychology*, 51, 333–338. doi:10.1037/0022-3514.51.2.333
- Clark, M. S., Pataki, S. P., & Carver, V. H. (1996). Some thoughts and findings on self-presentation of emotions in relationships. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 247–274). Mahwah, NJ: Erlbaum.
- Clark, M. S., & Taraban, C. B. (1991). Reactions to and willingness to express emotion in two types of relationships. *Journal of Experimental Social Psychology*, 27, 324–336. doi:10.1016/0022-1031(91)90029-6
- Davis, M. H. (1983a). The effects of dispositional empathy on emotional reactions and helping: A multidimensional approach. *Journal of Personality*, 51, 167–184. doi:10.1111/j.1467-6494.1983.tb00860.x
- Davis, M. H. (1983b). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44, 113–126. doi:10.1037/0022-3514.44.1.113
- de Waal, F. B. M. (1990). *Peacemaking among primates*. Cambridge, MA: Harvard University Press.
- de Waal, F. B. M. (1997). *Good natured: The origins of right and wrong in humans and other animals*. Cambridge, MA: Harvard University Press.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, 276–302. doi:10.1037/0033-2909.125.2.276
- Eisenberg, N., & Miller, P. A. (1987). The relation of empathy to prosocial and related behaviors. *Psychological Bulletin*, 101, 91–119. doi:10.1037/0033-2909.101.1.91
- Engelmann, D., & Fischbacher, U. (2009). Indirect reciprocity and strategic reputation building in an experimental helping game. *Games and Economic Behavior*, 67, 399–407. doi:10.1016/j.geb.2008.12.006
- Fehr, E., & Fischbacher, U. (2003). The nature of human altruism. *Nature*, 425, 785–791. doi:10.1038/nature02043
- Fiske, S. T., Cuddy, A. J. C., & Glick, P. (2007). Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences*, 11, 77–83. doi:10.1016/j.tics.2006.11.005
- Fruteau, C., Van De Waal, E., Van Damme, E., & Noë, R. (2011). Infant access and handling in sooty mangabeys and vervet monkeys. *Animal Behaviour*, 81, 153–161. doi:10.1016/j.anbehav.2010.09.028
- Gintis, H., Smith, E. A., & Bowles, S. (2001). Costly signaling and cooperation. *Journal of Theoretical Biology*, 213, 103–119. doi:10.1006/jtbi.2001.2406
- Goldberg, T. L. (1995). Altruism towards panhandlers: Who gives? *Human Nature*, 6, 79–89. doi:10.1007/BF02734137
- Isen, A. M., & Levin, P. F. (1972). Effect of feeling good on helping: Cookies and kindness. *Journal of Personality and Social Psychology*, 21, 384–388. doi:10.1037/h0032317
- Keltner, D., & Haidt, J. (1999). Social functions of emotions at four levels of analysis. *Cognition and Emotion*, 13, 505–521. doi:10.1080/026999399379168
- Knutson, B. (1996). Facial expressions of emotion influence interpersonal trait inferences. *Journal of Nonverbal Behavior*, 20, 165–182. doi:10.1007/BF02281954
- Leary, M. R., & Baumeister, R. F. (2000). The nature and function of self-esteem: Sociometer theory. *Advances in Experimental Social Psychology*, 32, 1–62. doi:10.1016/S0065-2601(00)80003-9
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, 131, 803–855. doi:10.1037/0033-2909.131.6.803
- Montepare, J. M., & Dobish, H. (2003). The contribution of emotion perceptions and their overgeneralizations to trait impressions. *Journal of Nonverbal Behavior*, 27, 237–254. doi:10.1023/A:1027332800296
- Noë, R., & Hammerstein, P. (1994). Biological markets: Supply and demand determine the effect of partner choice in cooperation, mutualism and mating. *Behavioral Ecology and Sociobiology*, 35, 1–11. doi:10.1007/BF00167053
- Ollendick, T. H., Weist, M. D., Borden, M. C., & Greene, R. W. (1992). Sociometric status and academic, behavioral, and psychological adjustment: A five-year longitudinal study. *Journal of Consulting and Clinical Psychology*, 60, 80–87. doi:10.1037/0022-006X.60.1.80
- Preston, S. D. (2011). Toward and interdisciplinary science of consumption. *Annals of the New York Academy of Sciences*, 1236, 1–16. doi:10.1111/j.1749-6632.2011.06163.x
- Preston, S. D. (2013). The origins of altruism in offspring care. *Psychological Bulletin*. Advance online publication. doi:10.1037/a0031755
- Preston, S. D., & de Waal, F. B. M. (2002). Empathy: Its ultimate and proximate bases. *Behavioral and Brain Sciences*, 25, 1–20.
- Preston, S. D., & Hofelich, A. J. (2012). The many faces of empathy: Parsing empathic phenomena through a proximate, dynamic-systems view of representing the other in the self. *Emotion Review*, 4, 24–33. doi:10.1177/1754073911421378
- Preston, S. D., Hofelich, A. J., & Stansfield, R. B. (2013). The ethology of empathy: A taxonomy of real-world targets of need and their effect on observers. *Frontiers in Human Neuroscience*, 7, 488. doi:10.3389/fnhum.2013.00488
- Rosenberg, S., Nelson, C., & Vivekananthan, P. S. (1968). A multidimensional approach to the structure of personality impressions. *Journal of Personality and Social Psychology*, 9, 283–294. doi:10.1037/h0026086
- Santamaria, J. P., & Rosenbaum, D. A. (2011). Etiquette and effort: Holding doors for others. *Psychological Science*, 22, 584–588. doi:10.1177/0956797611406444
- Schaefer, C., Coyne, J. C., & Lazarus, R. S. (1981). The health-related functions of social support. *Journal of Behavioral Medicine*, 4, 381–406. doi:10.1007/BF00846149
- Seyfarth, R. M. (1977). A model of social grooming among adult female monkeys. *Journal of Theoretical Biology*, 65, 671–698. doi:10.1016/0022-5193(77)90015-7
- Tiedens, L. Z. (2001). Anger and advancement versus sadness and subjugation: The effect of negative emotion expressions on social status conferral. *Journal of Personality and Social Psychology*, 80, 86–94. doi:10.1037/0022-3514.80.1.86
- Toi, M., & Batson, C. D. (1982). More evidence that empathy is a source of altruistic motivation. *Journal of Personality and Social Psychology*, 43, 281–292. doi:10.1037/0022-3514.43.2.281
- Tooby, J., & Cosmides, L. (1996). Friendship and the Banker's Paradox: Other pathways to the evolution of adaptations for altruism. *Proceedings of the British Academy*, 88, 119–143.

- Van Kleef, G. A. (2009). How emotions regulate social life: The emotions as social information (EASI) model. *Current Directions in Psychological Science*, 18, 184–188. doi:10.1111/j.1467-8721.2009.01633.x
- Van Kleef, G. A., De Dreu, C. K., & Manstead, A. S. (2010). An interpersonal approach to emotion in social decision making: The emotions as social information model. *Advances in Experimental Social Psychology*, 42, 45–96. doi:10.1016/S0065-2601(10)42002-X
- Van Vugt, M., & Iredale, W. (2013). Men behaving nicely: Public goods as peacock tails. *British Journal of Psychology*, 104, 3–13. doi:10.1111/j.2044-8295.2011.02093.x

Appendix

Patient Transcripts

Sad Patient Transcript

- YOU: Are there things that you are worried about?
- PATIENT A: [deep breath, voice breaking] Other than this?
- YOU: Well, about this . . . You mentioned trouble taking care of yourself and your home. Does that worry you?
- PATIENT A: Yes, yeah. [starting to cry]
- YOU: Is that the biggest thing you worry about?
- PATIENT A: [crying, voice shaking] Yeah. Right now.
- YOU: How has it affected your quality of life?
- PATIENT A: [voice breaking] You just . . . don't . . . get up and go. [looks very sad, starting to cry again]
- YOU: Has being sick made you think about yourself differently?
- PATIENT A: [voice breaking] Yeah. I'm no longer the caregiver. I just can't. [looking sad]
- YOU: Oh. So you lost the role you used to have?
- PATIENT A: [crying] Mmmhmm.
- YOU: Is that the hardest thing to cope with?
- PATIENT A: Well . . . [voice breaking] yeah. I also have nine great nephews and nieces—they are into football, wrestling—I have a great niece, who's 12, that's showing horses like you wouldn't believe . . . I'd love to go to all these things.
- YOU: But you can't.
- PATIENT A: But I can't. [nods, starting to cry]
- YOU: But I bet there are still some things in your life that you are proud of, right?
- PATIENT A: What am I most . . . [voice breaking] . . . I'm most proud of my nieces—my great nieces and nephews. [visibly upset] We took care of them when they were born. And uh . . . we've always been a big part of their lives. So I'm . . . [crying] very proud of my family.

(Appendix continues)

Happy Patient Transcript

YOU: Are there things that you are worried about?

PATIENT A: That I can take care of myself.

YOU: Oh really? So you worry about being able to take care of yourself?

PATIENT A: [nodding] Yeah.

YOU: Has it affected your quality of your life?

PATIENT A: It kind of shut me down for working. [smiling slightly]

YOU: It keeps you from working?

PATIENT A: Yeah. I can't work anymore . . . at all. I mean, it's not the worst thing in the world to not have to work. [wry smile]

YOU: Yeah. So has being sick made you think about yourself differently at all?

PATIENT A: No, not really. I'm still the same ol' person, just going through something extra.

YOU: So then what seems like the hardest thing that you've had to cope with?

PATIENT A: Just with . . . myself. [nodding, thoughtful] Being able to . . . be with the rest of them and go.

YOU: Who are the rest of them? Your family?

PATIENT A: Yeah, pretty much. [Looks off to the side, to the distance]

YOU: But I bet there are still some things in your life that you are proud of, right?

PATIENT A: Yeah. My boys, my daughter. [smiles]

YOU: Your boys and your daughter. So, you said before that you have three boys and one daughter?

PATIENT A: Yep. Three boys and my daughter who helps me keep them in line [smiles].

YOU: [you smile] Ok, ok.

PATIENT A: And my husband! [laughing because she forgot to mention him before]

YOU: And your husband! He was probably part of all this at some point . . . [you smile]

PATIENT A: [laughing] Yeah, you bet.

Received January 25, 2013
 Revision received November 8, 2013
 Accepted November 16, 2013 ■