Empathy-Motivated Helping: The Moderating Role of Group Membership

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In this article, the authors present two laboratory experiments testing a group-level perspective on the role of empathy in helping. Experiment 1 tested the authors' predictions in an intercultural context of helping. Confirming their specific Empathy \times Group Membership moderation hypothesis, empathy had a stronger effect on helping intentions when the helper and the target belonged to the same cultural group than when they belonged to different groups. Experiment 2 replicated these findings in a modified minimal group paradigm using laboratorycreated groups. Moreover, this second experiment also provides evidence for the hypothesized psychological mechanisms underlying the empathy- (ingroup) helping relationship. Specifically, analyses in the ingroup condition confirmed that the strength of the empathy- (ingroup) helping relationship systematically varied as a function of perceived similarities among ingroup members. The general implications of these findings for empathymotivated helping are discussed.

Keywords: empathy; helping; altruism; group-level similarities; group-level perspective

A mounting body of empirical evidence shows that the ingroup/outgroup relationship between the helper and the recipient of assistance (the "helpee") plays a crucial role in helping (e.g., Dovidio et al., 1997; Levine, Prosser, Evans, & Reicher, 2005; Omoto & Snyder, 2002). Specifically, recent research suggests that people help ingroup members not necessarily more than they help outgroup members (for a meta-analysis on interracial helping, see Saucier, Miller, & Doucet, 2005). Rather, it is the motivation for helping "us" versus helping "them" that is often of a fundamentally different nature (e.g., Simon, Stürmer, & Steffens, 2000; Stürmer, Snyder, & Omoto, 2005; also see Nadler, 2002). The main objective of the present research is to further explore the motivational differences in ingroup and outgroup helping. Specifically, we examine the differing role that empathy may play as a motivator of helping.

A Group-Level Perspective on the Role of Empathy in Helping

Numerous studies in social, personality, and developmental psychology have documented the role of empathy—an other-oriented emotional reaction including

PSPB, Vol. 32 No. 7, July 2006 943-956 DOI: 10.1177/0146167206287363

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feelings of compassion, sympathy, and concern—in helping people in need. Specifically, there have been many demonstrations that feeling empathy for an individual in need increases helping even in situations in which helping is relatively demanding or even selfsacrificing (for reviews, see Batson, 1991; Davis, 1996). The idea that ingroup/outgroup relationships between helpers and helpees influence the links between empathy and helping has its precedents (see e.g., Hornstein, 1978; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987, especially pp. 50-51 and 65). Surprisingly, however, when the role of empathy has been examined, it generally has been in interpersonal contexts; by contrast, intergroup contexts of helping have been relatively neglected.

The group-level perspective on empathy presented here has been informed in important ways by theorizing and research in the domains of social and evolutionary psychology investigating the social-cognitive underpinning of empathy and human altruism. According to this literature, one important cognitive factor facilitating empathy-motivated helping is the perception of similarities between the helper and the target (e.g., Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Hornstein, 1978; see also Burnstein, Crandall, & Kitayama, 1994; Park & Schaller, 2005). A prominent explanation for this phenomenon-on which we also base the present perspective-revolves around the idea that self-other similarity signals the perceiver that the self and the other are "of the same kind" (in a biological sense, defined by common genes, see Cunningham, 1986; in a more abstract psychological sense, defined by an attributed common essence or make up, see Medin & Ortony, 1989; Rothbart & Taylor, 1992). To the extent that people recognize aspects of themselves (of their genes, of their essence) in the other, the other's welfare becomes of immediate self-relevance. This in turn should increase the likelihood of altruistic reactions to another's plight (e.g., Burnstein et al., 1994; Park & Schaller, 2005; Turner et al., 1987).

The significance of perceived self-other similarity directly points to a possible role of (inter) group processes in empathy-motivated helping. According to the intergroup literature, especially research guided by the social identity or self-categorization approach (Turner et al., 1987), salient ingroup/outgroup categories play a key role in regulating the perception of self-other similarities. When a specific group membership is salient, people's perceptual focus is on the self-aspects that they share with members of the ingroup but not with members of the outgroup (e.g., cultural background, ethnicity). As a consequence, people come to perceive ingroup members (including the self) as similar to each other whereas outgroup members are perceived as dissimilar and different from the ingroup and the self (e.g., Wilder, 1986). Following the reasoning outlined earlier, one can thus expect that similar group membership between the helper and the person in need facilitates empathy-motivated helping. Group-level similarity indicates that the target is "of one's kind," which renders his or her welfare of immediate self-relevance; this, in turn, should increase the likelihood that as people experience empathic concern because the other's welfare is threatened, they follow this emotion and invest of their personal resources on the other's behalf. The perception of self-other dissimilarities on the other hand should make empathy-motivated helping less likely. When ingroup/outgroup differences are salient, perceived self-other dissimilarities may function as a warning signal (i.e., a cue of stigma or deviance), which is likely to evoke negative emotions, such as feelings of anxiety, insecurity, or threat (Pryor, Reeder, Yeadon, & Hesson-McInnis, 2004; Stephan & Stephan, 1985). As a result, when people contemplate offering help to an outgroup member, they often may do so in a more systematic and controlled mode by carefully considering potential costs and benefits resulting from their actions (e.g., Pryor et al., 2004; see also Stürmer et al., 2005). This in turn should make it less likely that-even if people experience empathy from seeing an outgroup member suffering-they let themselves be guided by this emotion to help.

Empirical support for this perspective comes from studies of helping provided to people with sexually transmitted diseases (Stürmer et al., 2005; see also Penner & Finkelstein, 1998). For those who offer help in this context, the target's sexual orientation provides a salient basis for ingroup/outgroup categorization (see Simon et al., 2000). In line with the perspective outlined earlier, in both studies empathy had a stronger effect on helping and helping intentions when the helper and the helpee shared group membership based on sexual orientation than when group membership was unshared (i.e., the helper's and the helpee's sexual orientation was dissimilar). It is particularly noteworthy at this point that research participants in the critical ingroup and outgroup conditions did not differ in their dispositions to feel empathy and reported equivalent levels of empathy for the specific target. Thus, there was a similar potential for empathy to become effective as a motivator of helping. Still, in line with our perspective, this potential was translated into helping only when the helper categorized the target as of the same kind, whereas when the target was of a different kind, empathy was irrelevant for the decision to help.

EXPERIMENT 1

The main objective of the first experiment was to replicate and extend the Stürmer et al. (2005) findings (which were obtained in the context of helping people with sexually transmitted diseases) by investigating a different intergroup context. Specifically, we examined helping between students of a German and a Muslim cultural background in Germany. Two reasons make replication of the Stürmer et al. data particularly relevant. First, helping people with sexually transmitted diseases is but one context in which helping can occur. Accordingly, we cannot rule out that specific and context-dependent factors may have contributed to the observed ingroup/outgroup differences in the role of empathy (e.g., specific antigay stereotypes). Second, even though the Stürmer et al. findings are consistent with findings reported by other researchers (Penner & Finkelstein, 1998), there exists other work that questions the role of ingroup/outgroup categorizations. Specifically, Batson et al. (1997) manipulated ingroup/ outgroup status and found no effects on empathy and helping; building on these results, they claimed a "generality of the empathy-helping relationship" across group boundaries (p. 495). There are several features in the Batson et al. studies that contribute some doubt to this conclusion, we believe. Most important, both studies failed to demonstrate that participants actually categorized the target in terms of group membership. Still, to compare Batson et al.'s position with the grouplevel perspective on empathy-motivated helping presented here, further research is needed.

Our main hypothesis states that the effect of empathy on helping is stronger when the target of concern is an ingroup member ("the same kind") than when the target of concern is an outgroup member ("a different kind")—a prediction that we label the *Empathy* \times *Group* Membership Moderation hypothesis. Accordingly, we tested in the present experiment whether an experimental manipulation of the ingroup/outgroup relationship between the helper and the helpee (the moderator) affected the strength of the relationship between empathy (the predictor) and helping intentions (the criterion). To strengthen the validity of our findings, we also considered potential alternative explanations for the empathy-helping relation in our experiment. Of particular relevance in this respect is research by Cialdini and colleagues that challenged the role of empathy as a motivator for helping (e.g., Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; Maner et al., 2002). Specifically, Cialdini and colleagues suggested that empathy serves merely as an emotional cue for selfother oneness (the self and the other are perceived as a unit), and that it is perception of interpersonal oneness and not empathy that ultimately promotes helping (for empirical support of this hypothesis, see Cialdini et al., 1997; Maner et al., 2002). To examine this alternative model, we included a measure of interpersonal oneness as a statistical control variable in our analyses. In addition, and also following Cialdini and colleagues' previous research, we also measured participants' feelings of sadness and personal distress resulting from seeing another person in need, and we statistically controlled for these feelings in our analyses. Both emotions have also been suggested as alternative explanations for the empathy-helping relationship. It is worth noting at this point that our previous research demonstrated the predicted role of empathy in (ingroup) helping even when interpersonal oneness and feelings of sadness and distress were controlled (Stürmer et al., 2005, Study 2; for similar results, see Batson et al., 1997). Replication of the unique role of empathy in the present research would thus considerably strengthen the conclusion that these variables can be ruled out as alternative explanations for the effect of empathy on (ingroup) helping.

METHOD

Design and Participants

In this experiment that contrasted an ingroup condition with an outgroup condition, 94 male students at the University of Kiel (Germany) participated. Specifically, 47 students were of a German cultural background (M age = 23.49 years, SD = 2.31 years), and 47 students were of a Muslim cultural background (M age = 27.77 years, SD = 4.34 years). German and Muslim participants were both randomly assigned to the two experimental conditions (ingroup condition: 23 German and 24 Muslim students; outgroup condition: 24 German and 23 Muslim students). Also, 3 additional students who participated in this experiment were not included in the sample because they reported doubts about the authenticity of the cover story. Moreover, the data of 2 Muslim participants were not considered because they reported comprehension problems while working through the experimental program. Finally, 1 selfidentified Turkish-German student was not considered because he could not be unambiguously assigned to the ingroup or outgroup condition.

Participants received $\notin 8$ for their participation. The majority of the Muslim participants were nonnative speakers of German who had lived on average for 5.82 years in Germany (*SD* = 6.55 years, range = 1 to 30 years).

Procedure

We introduced the study to participants as one concerned with problem solving in internet discussions. Participants attended the session in culturally mixed groups of up to 8 participants. Upon arrival at the laboratory, participants were seated in individual cubicles with computer terminals. All relevant instructions were presented via the computer. First, participants were told that they would communicate with another participant via e-mail messaging. Although participants were carefully instructed about how to use the e-mail program, they did not actually communicate with another person. All of the messages that participants received, allegedly from their partner, had been preprogrammed.

In a first phase of the experiment, participants in both conditions worked through a personality questionnaire that included questions regarding participants' gender, age, and cultural background. Then, participants read that they would be asked to discuss with their partner either a social issue (i.e., migration) or a personal issue of their choice (e.g., problems with friends or in school). All participants were told that the computer assigned them and their partner to the personal issue condition and that their partner would bring in the issue he wished to talk about.

In a next phase, to lend further authenticity to the cover story, participants created a "personal user profile" that included ratings of their physical appearance and personal interests. Participants learned that their profile would be sent to a communication partner with whom they were matched on a random basis. Several seconds after having sent their own profile, participants received their partner's profile. To keep the relationship between the participant and the partner constant in regard to age and gender, the partner's profile stated that the partner was male and that he was 1 year older. In addition, the profile included information concerning his looks and his interests. Participants were asked to visualize the physical appearance of the partner for a minute.

Group membership manipulation. To manipulate the ingroup/outgroup relationship, participants received a message allegedly sent from their partner indicating his cultural background. Specifically, depending on the experimental condition (i.e., ingroup or outgroup helping) and the participant's own cultural background, the partner introduced himself either with a German or a Muslim first name: "Hi, by the way I am Markus (Mohammed), and who are you?"

The partner's predicament. Next, all participants were informed that their partner had been asked to send a description of the personal problem he wanted to talk about. After about 60 seconds, participants received an

e-mail allegedly sent from their partner. The content of the message was identical in both experimental conditions. The partner's message read:

What is on my mind right now . . . huh, everything is really bad in my life at the moment. I am new to Kiel, don't know many people, my family is far way. I am looking urgently for a room but either rejections or far too expensive. Really getting panic that I will have to live on the streets, I can only stay for one week in the room I have right now, was just an interim thing. Have no clue what to do. I feel really down.

Subsequently, participants completed an "Impression Check Questionnaire" that included measures of empathy, control variables, and helping intentions. They were then fully debriefed, paid, and thanked.

Measures

We presented all theoretically relevant measures intermixed with filler items related to the cover story (e.g., items tapping participants' familiarity with the internet). Because most of the Muslim participants were nonnative speakers of German, we restricted the number of items for each measure to a set of core items that were selected on the basis of a comprehension pretest conducted with several Muslim students.

Empathy. To measure levels of empathy the participant felt for his partner we included three items in the Impression Check Questionnaire tapping feelings of *compassion, sympathy,* and *empathic understanding* for the communication partner. Participants rated each item on 7-point scales ranging from 0 (*not true at all*) to 6 (*completely true*). For each participant we calculated a composite score for empathy by averaging over the three items (Cronbach's α for German participants = .72, for Muslim participants = .51).

Sadness, distress, and interpersonal oneness. The Impression Check Questionnaire also included measures for the control variables considered in this research. Specifically, participants rated how *sad* and how *uneasy* they felt after reading their partner's message. These ratings were made on 7-point scales ranging from 0 (*not true at all*) to 6 (*completely true*). Items measuring empathy, sadness, and distress were presented intermixed following the presentation of the partner's predicament.

An additional item measured interpersonal oneness by asking participants to indicate the extent to which they would use the term *we* to describe their relationship with the partner. (This item is frequently employed to measure a sense of self-other overlap; see e.g., Cialdini et al., 1997). The rating of this item was done on a 7-point scale ranging from 0 (*not at all*) to 6 (*very* *often*). This item was presented in a later phase of the experiment after the measurement of emotions.

Helping intentions. In a final part of the Impression Check Questionnaire, we measured participants' helping intentions. First, participants responded to the following two items: "How great would your willingness be to help your partner with his problem if he asks you for assistance?" and "How great would your willingness be to meet your partner in the future again, if you discovered that he has further problems?" Ratings for these items were made on 7-point scales ranging from 0 (very low) to 6 (very high). In addition, participants indicated how much time they would spend on helping their partner when they had 1 hour of time to do so. The rating for this item was made on a 7-point interval scale ranging from 0 minutes to 60 minutes (10-minute intervals). For each participant, we calculated a composite score by averaging over the three items (Cronbach's α for German participants = .71, for Muslim participants = .81).

Perceived traits of the target. Finally, to examine whether and to what extent participants perceived their partner as an ingroup member (i.e., of the same cultural background) or as an outgroup member (i.e., of a different cultural background), we administered two items tapping on perceived trait differences between Germans and Muslims. Research on the stereotypes of Germans and Muslims in Germany (e.g., Kahramann & Knoblich, 2000) suggests that Germans are perceived as more reserved and Muslims, specifically Muslim men, are perceived as more hot tempered. Accordingly, to tap this dimension, we asked our participants to estimate how uncontrolled and how loud they felt their partner probably was in general. Ratings of these items were made on 7-point scales ranging from 0 (not true at all) to 6 (completely true). For each participant, we calculated a composite score by averaging over the two items: for German participants, r(45) = .37, p = .010; for Muslim participants, r(45) = .41, p = .005.

RESULTS

Preliminary Analyses

Perception of the target. To check the effectiveness of our manipulation, we conducted a 2 (Target: Markus vs. Mohammed) \times 2 (participant's cultural background: German vs. Muslim) ANOVA with the perceived trait measure as the dependent variable. This analysis yielded two significant effects. First, we observed a significant main effect for participants' own cultural background, F(1, 90) = 5.41, p = .022, indicating that Muslim participants generally perceived their partner as more hot

tempered than German participants did; M(MUSLIMS) = 3.27 versus M(GERMANS) = 2.68. Second, and corroborating the effectiveness of our manipulation, the main effect of the target's group membership was also significant, F(1, 90) = 6.32, p = .014. As intended, both German and Muslim participants perceived their partner as more hot tempered when he introduced himself as "Mohammed" than when he introduced himself as "Markus," M(MOHAMMED) = 3.28 versus M(MARKUS) = 2.65. The interaction was nonsignificant, F < 1.

Empathy, controls, and helping intentions. We also conducted a series of univariate 2×2 ANOVAs to check the effects of our manipulation on levels of empathy, interpersonal oneness, sadness, distress, and helping intentions. These analyses yielded two main findings. First, there was a main effect on reported empathy for the target. Overall, both German and Muslim participants reported more empathy for a Muslim student having trouble finding an accommodation than for the German student; M(MOHAMMED) = 4.31 versus M(MARKUS) =3.73, F(1, 90) = 5.96, p = .017. All other effects in this analysis were nonsignificant. Second, ANOVAs revealed that Muslim participants generally displayed higher levels of sadness, M(MUSLIMS) = 3.62 versus M(GERMANS) =2.09; distress, M(MUSLIMS) = 3.21 versus M(GERMANS) = 1.77; interpersonal oneness, M(MUSLIMS) = 3.21 versus M(GERMANS) = 2.13; and stronger helping intentions, M(MUSLIMS) = 4.04 versus M(GERMANS) =3.44, than did German participants, all Fs for the corresponding cultural background main effects \geq 5.00, $ps \leq .028$, the remaining effects were all nonsignificant, $F_{\rm s} \le 1.36, \, p_{\rm s} \ge .247.$

Main Analyses: Testing the Empathy × Group Membership Moderation Hypothesis

Table 1 presents the intercorrelations, means, and standard deviations for all theoretically relevant variables for the two experimental conditions collapsed over German and Muslim participants. (Note that for simplicity, all statistical tests are reported two-tailed, even for directional predictions.) To test our specific Empathy × Group Membership Moderation hypothesis, we used the procedure recommended by Aiken and West (1991) for examining interaction or moderation effects with correlational data. Specifically, we conducted a two-step hierarchical regression analysis in which helping intentions were regressed on the predictor variable (empathy) and the moderator variable (the experimental manipulation, coded 1 for ingroup and -1 for outgroup condition) in a first step, with a Predictor × Moderator interaction term added in the second step. When entered in the first step in the regression equation, empathy was a significant predictor, $\beta = .37$,

Variable	1	2	3	4	5
Empathy (1)		.41***	.10	.33**	.62***
Sadness (2)	.08		.09	.31**	.51***
Distress (3)	.02	.40***		.25*	.17
Oneness (4)	07	.19	.11		.66***
Helping intentions	s (5) .09	.01	.03	.47***	
Ingroup helping					
M	4.08	2.81	2.34	2.62	3.59
SD	1.33	1.78	1.74	1.82	1.30
Outgroup helping					
M	3.97	2.89	2.64	2.72	3.89
SD	1.01	1.95	2.05	2.00	1.40

 TABLE 1:
 Intercorrelations, Means, and Standard Deviations for Predictor, Criterion, and Control Variables for Ingroup and Outgroup Conditions (Experiment 1)

NOTE: Intercorrelations for the ingroup condition (n = 47) are presented above the diagonal, intercorrelations for the outgroup condition (n = 47) are presented below the diagonal. For all measures, scores can vary between 0 and 6.

*p < .10. **p < .05. ***p < .01.

t(91) = 3.82, p < .001, whereas the unique predictive value of the experimental manipulation variable was nonsignificant, $\beta = -.13$, t(91) = -1.36, p = .178, overall $R^2 = .15, F(2, 91) = 7.99, p = .001$. Supporting our moderation hypothesis, when entered in the second step, the interaction term received a significant and positive regression weight, t(90) = 2.12, p = .037, $\Delta R^2 = .04$, $\Delta F(1)$, 90) = 4.51, p = .037. To further decompose this interaction, we also conducted separate bivariate correlation analyses for the ingroup and the outgroup conditions. In line with our predictions, empathy was a significant predictor of helping intentions when the helpee was an ingroup member, r(45) = .62, p < .001, but it did not predict helping intentions when he was an outgroup member, r(45) = .09, p = .557, z = 2.98, p = .003. (Please note that the variances of the empathy and helping intention measures did not significantly differ between the ingroup and outgroup conditions, Levene's $Fs \leq$ 1.20, $ps \ge .276$, so that the possibility that the observed differences result from differing variances for these variables can be ruled out.) Importantly, separate correlational analyses replicated this pattern for German and Muslim participants. In both subsamples, empathy was a significant predictor of helping intentions when the helpee was an ingroup member, $n \ge .58$, $p \le .003$, but not when the helpee was an outgroup member, $r_{\rm S} \leq$.23, $ps \ge .270$, $zs \ge 1.57$, $ps \le .116$.

Controlling for interpersonal oneness, sadness, and distress. To rule out interpersonal oneness or feelings of sadness and distress as alternative explanations for the empathy- (ingroup) helping relationship, we conducted a multiple regression analysis for the ingroup condition (collapsed over German and Muslim participants) in which empathy, oneness, sadness, and distress were simultaneously considered as predictors of helping intentions. Confirming its unique role in ingroup helping, empathy retained a significant predictive value, $\beta =$.37, t(42) = 3.61, p = .001. Of the three additional determinants, both interpersonal oneness, $\beta = .47$, t(42) = 4.66, p < .001, and sadness, $\beta = .22$, t(42) = 2.14, p = .039, emerged as significant predictors, whereas the unique predictive value of distress turned out to be nonsignificant, $\beta = .001$, t(42) = 0.01, p = .994, overall $R^2 = .65$, F(4, -1)42) = 19.54, p < .001. In an analogous multiple regression analysis in the outgroup condition, only interpersonal oneness proved as a significant and unique predictor of helping intentions, $\beta = .50$, t(42) = 3.66, p = .001, for empathy, sadness, and distress, $t(42)s \leq t$ $|0.96|, ps \ge .341$, overall $R^2 = .25, F(4, 42) = 3.46, p < .016$.

Separate analyses for the Muslim and German subsamples replicated the unique role of empathy in ingroup helping. As can be seen in Figure 1, in both subsamples, empathy retained its predictive value when the potential alternatives were considered as additional predictors, both $ts \ge 2.36$, $ts \le .030$. Taken together, these analyses provide further support for the validity of our findings.

DISCUSSION

The results of this experiment clearly replicated previous research reporting a differential role of empathy in ingroup and outgroup helping (Penner & Finkelstein, 1998; Stürmer et al., 2005). More specifically, in line with the Empathy \times Group Membership Moderation hypothesis, hierarchical regression analysis confirmed that empathy had a stronger impact on helping intentions when the target was categorized as an ingroup member (similar cultural background) than when the target was an outgroup member (different cultural background). Moreover, extending previous findings (Stürmer et al., 2005, Study 2), the relation between empathy and helping intentions in the ingroup condition held up even when we controlled for additional predictors, namely, interpersonal oneness and feelings of sadness or distress.

Importantly, separate correlational analyses replicated the predicted pattern for both subsamples of participants in this experiment (i.e., German and Muslim participants). This replication is particularly important in light of the finding that both German and Muslim participants tended to report higher levels of empathy for the Muslim student, possibly because they felt that due to negative stereotypes of Germans against Muslims, it was more difficult for a Muslim student than



Figure 1 Unique predictive value of empathy predicting helping intentions for German and Muslim participants in the ingroup and outgroup conditions.

NOTE: Coefficients are standardized regression weights from separate multiple regression analyses with empathy, interpersonal oneness, sadness, and distress as predictor variables and helping intentions as criterion variable. *p < .05. **p < .01.

for a German student to find accommodation. Still, in line with our group-level perspective on empathymotivated helping, only for Muslim participants, for whom the target was an ingroup member, empathy actually translated into helping intentions. For German participants, for whom the Muslim student was an outgroup member, empathy was ineffective as a predictor

EXPERIMENT 2

of helping intentions.

In the present experiment we sought to further substantiate the validity and generalizability of the grouplevel perspective by replicating the critical ingroup/ outgroup difference in empathy-motivated helping in a modified minimal group paradigm (Tajfel, Billig, Bundy, & Flament, 1971). Using this procedure would allow us to eliminate factors potentially confounded with "natural" ingroup/outgroup categorizations and that might serve as possible alternative explanations for the observed moderation effect (e.g., relationship history, conflict of interests, stereotypes). A second main objective of this experiment concerned the cognitive processes underlying the observed moderation effect. Our group-level perspective suggests that, as common ingroup membership is salient, people come to perceive ingroup members (including the self) as similar to each other ("We are all alike"). This similarity, in turn, should increase the likelihood that people act on feelings of empathy and help (i.e., invest their personal resources). To test this assumption, we included a measure of perceived intragroup similarities in Experiment 2 and examined whether and to what extent the degree of perceived intragroup similarities moderated the effect of empathy on ingroup helping. To support our reasoning, the effect of empathy on helping the target should be stronger when people perceive a high degree of intragroup similarities (ingroup members, including the self and the target, are perceived as all alike), whereas this effect should be weaker when people perceive only little similarities between the members of the ingroup (including the self and the target).

METHOD

Design and Participants

Forty students (23 women and 17 men, M age = 19.23 years, SD = 1.19 years) in an introductory psychology course at the University of Minnesota participated in this experiment, which contrasted an ingroup condition with an outgroup condition. Participants were randomly assigned to conditions. Although the overall gender distribution in the study was not even, it did not differ significantly between the two conditions (ingroup condition: 12 women, 8 men; outgroup condition: 11 women, 9 men). Participants received \$15 for their participation and also earned credit toward a course requirement. Also, 2 additional students who participated in this experiment were not included in the analyses because they failed to correctly recall the helpee's group membership (the manipulation check used in the present experiment, see following for details).

Procedure

The experiment was presented to participants as one concerned with factors affecting money investment. Upon arrival at the laboratory, participants were seated in individual cubicles with computer terminals. Although the actual number of participants attending the session varied between 2 to 8, participants in each session were told that 8 participants were present. Participants received all relevant instructions on the computer screen. Participants were told that they would receive a certain amount of money that they could invest by different strategies. Participants then learned that one specific objective of the study was to examine the effect of communication on money investment. Therefore, they would be able to communicate with another participant in this session via e-mail. They were told that half of the participants had been designated to send information and the other half-including themselves-had been assigned to receive information. It was pointed out that each participant assigned to the receiver role would receive a message from a different sender and that nobody else but the sender and the receiver would know the content of the message. Participants also learned that while they were reading their instructions, participants assigned to the sender role were asked to write a note about some recent event in their life. Participants were led to believe that the sender wrote the message before receiving any information about the investment possibilities in this study. As in Experiment 1, participants did not actually communicate with another person; the message they received had been preprogrammed.

Minimal group scenario. In a next phase, participants learned that in addition to communication, another factor affecting money investment strategies was the way that people perceive and process information. Specifically, they learned that research distinguishes between two groups of people, "detailed" and "global" perceivers. Instructions explained that neither of the two groups is generally better than the other. Instead, both modes of information processing should be understood as different cognitive strategies to deal with information. Then, participants engaged in a "dot-estimation task" allegedly assessing their mode of perceiving. All participants were provided with feedback on their scores indicating that they were detailed perceivers. Furthermore, they were informed that previous research showed that the groups of detailed perceivers and global perceivers in an experimental session are typically of equal size and that men and women are equally represented in both groups.

Group membership manipulation. Before participants received their sender's e-mail, an extra message window on the computer screen displayed from whom the message was sent. In the ingroup condition, participants were informed that the sender was a detailed perceiver, and in the outgroup condition, the message said that the sender was a global perceiver.

The partner's predicament. Subsequently, participants received the following message describing the sender's predicament:

I'm supposed to write something interesting that happened to me lately. Well, I don't know if this will be interesting to you, but the only thing I can think of is that last night I left my backpack with my money, credit cards and two concert tickets in a restaurant downtown. The tickets were a present for my younger brother who hasn't been doing well for a long time. They were \$26 each! Today I went to the restaurant. They had my backpack but money, cards and tickets were gone. There is apparently no chance to get anything back and it's not enough to collect insurance. I don't know what to do. I really worked hard for that money. And I don't have much in the bank. It's really been a bad day for me.

The content of the message was identical in both experimental conditions. After reading this message, participants were asked to complete a series of questions including measures of empathy, interpersonal oneness, sadness, and distress.

Helping opportunity. In a last phase of the experiment, participants received information about their investment options. First, they learned that they had \$5 for their investments and that they could keep the money they would have earned as a result of their investments. To provide an opportunity to benefit their sender, they learned that they could invest money for both themselves and/or for another person participating in the study. They were told that if they wanted to invest money for another participant, they should specify this person in a text entry field. In case they wanted to invest money for their sender, they were asked to type sender. Participants were told that they would not receive any money resulting from their investments for another person and that the gains would be transferred automatically to the participant of their choice. Thus, investing for the sender incurred an actual loss of one's own resources. Participants could invest money for themselves and/or another participant by using two different investment strategies. If they opted for "higher risk investment," the chance to receive 10 times the sum invested was 30%, and the likelihood to lose all of the money invested was 70%. If they opted for "lower risk investment," the chance to double the sum invested was 60%, and the likelihood to lose the money invested was 40%. Participants were asked to indicate how much of their \$5 they wanted to spend on each of the four different investment options (high and low risk for self, high and low risk for other). For each option, a separate 6-point interval scale ranging from \$0 to \$5 was presented. Participants were informed that to proceed to the next screen they had to invest the total amount of their investment money. Moreover, they had to make sure that the sum of the money they spent on the investment options equals \$5. The critical helping measure used in the present experiment consisted of the sum total participants actually invested for their sender.

After participants completed the money investment section, they were asked to answer some additional questions and to provide some sociodemographic data. With one item at the end, we checked whether participants were actually aware that their sender was an ingroup member (i.e., a detailed perceiver) or an outgroup member (i.e., a global perceiver). At the end of the experiment, participants were fully debriefed, paid, and thanked.

Measures

We presented participants with all theoretically relevant measures intermixed with filler items related to the cover story.

Empathy. To measure feelings of empathy, we used five adjectives—*compassionate, sympathetic, moved, tender,* and *softhearted*—derived from Batson's (1991) empathic concern index. All ratings were made on 7-point scales ranging from 0 (*not true at all*) to 6 (*completely true*). For each participant, we calculated a composite score by averaging over the five items (Cronbach's $\alpha = .77$).

Sadness, distress, and interpersonal oneness. To measure feelings of sadness, we used the adjectives sad and low-spirited.¹ To measure feelings of distress, we used the adjectives alarmed, worried, and uneasy. All ratings were made on 7-point scales ranging from 0 (not true at all) to 6 (completely true). For each participant, we calculated composite scores for sadness (Cronbach's $\alpha = .57$) and distress (Cronbach's $\alpha = .61$). The items measuring empathy, sadness, and distress were presented intermixed and immediately after the presentation of the partner's predicament.

Participants also rated two items measuring the extent of interpersonal oneness that they felt with the helpee. First, as in Experiment 1, participants indicated on a 7-point scale ranging from 0 (not at all) to 6 (very often) the extent to which they would use the term we to describe their relationship with the communication partner. In addition and following Cialdini et al.'s (1997) procedure, we also used Aron, Aron, and Smollan's (1992) Inclusion of Other in the Self (IOS) Scale. The IOS scale consists of seven pairs of increasingly overlapping circles representing the self and the other. Participants were asked to select the pair of circles that they believed best characterized their relationship with their sender. The two items were combined into a composite score of interpersonal oneness by averaging over ratings, r(38) = .59, p < .001. These items were presented in a section following the measurement of emotions.

Perceived intragroup similarities. Participants rated an item tapping the perceived degree of intragroup similarities ("In general, detailed perceivers are similar to each other"). Ratings regarding this item were made on 7-point scales ranging from 0 (not true at all) to 6 (completely true).

Helping. Participants indicated on a 6-point interval scale ranging from \$0 to \$5 how much money they wanted to invest for their partner using higher risk investment. On a similar 6-point scale, they indicated how much money they wanted to invest for their partner using lower risk investment. To create an overall index of helping, we computed the total amount of money participants invested for their sender by computing a sum score, r(38) = .73, p < .001. Scores for this measure can thus vary between \$0 and \$5.

RESULTS

Preliminary Analyses

To explore potential differences between the two experimental conditions, we first conducted a series of univariate ANOVAs with group membership as the independent variable and empathy, control variables, perceived intragroup similarities, and helping as dependent variables. These analyses revealed two findings: First, when participants "communicated" with an ingroup member, they also perceived more similarities among ingroup members in general than when they communicated with an outgroup member, M(INGROUP) = 3.35, M(OUTGROUP) = 2.50, F(1, 38) = 6.94, p = .012.Second and probably as a result of increased similarity perceptions, participants in the ingroup condition also felt somewhat higher levels of distress as a result of the target's predicament than participants in the outgroup condition, M(INGROUP) = 2.75, M(OUTGROUP) =2.07, F(1, 38) = 3.23, p = .080. All other mean differences between the experimental conditions were nonsignificant, all $F_s \leq 2.73$, $p_s \leq .107$.

Main Analyses: Testing the Empathy × Group Membership Moderation Hypothesis

Table 2 presents the intercorrelations, means, and standard deviations for all theoretically relevant variables for the two experimental conditions. Possibly because the least costly option to help the target was to give away one fifth of the money available to participants to invest, across the entire design the proportion of participants donating money to benefit the sender was moderate, overall 42.50%. To rule out the possibility that our test of the Empathy \times Group Membership Moderation hypothesis was affected by outliers on the continuous helping measure, we first created a dichotomous measure of helping (0 = no donation, 1 = donation). Then, to provide an initial and robust test of our hypothesis in this experiment, we used this dichotomous measure as the criterion in a two-step hierarchical logistic regression analysis. Following the procedure of Experiment 1, empathy and the experimental manipulation variable (coded 1 for ingroup and -1 for outgroup condition) were entered in a first step, and the

Variable	1	2	3	4	5	6
Empathy (1)		.59***	.37	.42*	.11	.63***
Sadness (2)	.41*		.61***	.38	00	.17
Distress (3)	.48**	.28		.05	01	.15
Oneness (4)	.19	.05	.17		.12	.48**
Intragroup similarities (5)	.48**	.46**	.11	25		.26
Helping (6)	.14	.07	.15	.22	.04	
Ingroup helping						
M	4.04	3.58	2.75	2.55	3.35	0.60
SD	0.65	1.00	1.16	1.39	0.81	0.94
Outgroup helping						
M	4.05	3.15	2.07	1.88	2.50	1.05
SD	1.09	1.44	1.25	1.19	1.19	1.54

TABLE 2: Intercorrelations, Means, and Standard Deviations for Predictor, Criterion, and Control Variables for Ingroup and Outgroup Conditions (Experiment 2)

NOTE: Intercorrelations for the ingroup condition (n = 20) are presented above the diagonal, intercorrelations for the outgroup condition (n = 20) are presented below the diagonal. For empathy, sadness, distress, and oneness, scores can vary between 0 and 6. For helping, scores can vary between \$0 and \$5.

*p < .10. **p < .05. ***p < .01.

Empathy \times Experimental Manipulation interaction term was added in the second step. When entered in the first step, neither empathy nor the experimental manipulation variable received a significant regression weight, Wald's $\chi^2(1, N = 40)s \le 0.91$, $ps \ge .340$, overall model's $\chi^2(2, N = 40) = 1.06, p = .587$. Entering the interaction term in the second step clearly replicated the Empathy × Group Membership Moderation effect of Experiment 1. The interaction term received a significant regression weight, Wald's χ^2 (1, N = 40) = 4.57, p = .033, and led to a significant increase of the overall model's fit, $\Delta \chi^2(1, N = 40) = 6.32$, p = .012. To further decompose this interaction, we computed separate pointbiserial correlations between empathy and the dichotomous helping measure for the ingroup and the outgroup conditions. In line with our predictions, empathy was a significant predictor of helping when the helpee was an ingroup member, $r_{pb}(18) = .51$, p = .021, but it did not predict helping when he or she was an outgroup member, $r_{bb}(18) = -.20$, p = .402, z = 2.23, $p = .026^{2}$ In summary then, these analyses provide clear support for the Empathy \times Group Membership Moderation hypothesis in this experiment.

As can be seen in Table 2, using the continuous helping measure instead of the dichotomous helping measure produced very similar relationships between empathy and helping; ingroup condition, r(18) = .63, p = .003; outgroup condition, r(18) = .14, p = .547, z = 1.75, p = .080. As the continuous measure provides more textured information about participants' helping responses than does the dichotomous measure, we focus our report in the following on those analyses in which we used the continuous helping measure as

criterion. The results for the dichotomous measure are reported in summary.

Controlling for interpersonal oneness, sadness, and distress. We performed additional regression analyses for the ingroup condition in which empathy, oneness, sadness, and distress were simultaneously considered as predictors of helping. As in Experiment 1 and confirming its unique role in ingroup helping, empathy retained a significant predictive value, $\beta = .69$, t(15) = 3.09, p = .007. Of the three additional determinants, interpersonal oneness, $\beta = .36$, t(15) = 1.77, p = .097, emerged as a marginally significant and positive predictor, whereas distress did not predict helping, $\beta = .16$, t(15) = 0.71, p = .488. Unexpectedly, sadness had a marginally significant negative regression weight, $\beta = -.47$, t(15) = -1.77, p = .097, overall $R^2 = .55$, F(4, 15) = 4.54, p = .013. In an analogous multiple regression analysis in the outgroup condition, none of the four predictor variables (empathy, interpersonal oneness, sadness, distress) emerged as a significant predictor of helping, all $t(15)s \le |0.75|$, $ps \ge .463$. Using the dichotomous measure of helping as the criterion variable in a binary logistic multiple regression analysis replicated these findings, in the ingroup condition, Wald's χ^2 for empathy was 4.06, p =.044, in the outgroup condition, the corresponding value was 0.27, p = .871.

The Role of Perceived Intragroup Similarities

Our group-level perspective suggests that the degree of perceived intragroup similarities moderates the effect of empathy on ingroup helping. To investigate this mechanism, we conducted a two-step hierarchical regression analysis in which the continuous measure of helping was regressed on the predictor variable (empathy) and the moderator variable (perceived intragroup similarities) in the first step, with a Predictor \times Moderator interaction term added in the second step. When entered in the first step in the regression equation, empathy was a significant predictor, $\beta = .61$, t(17) =3.28, p = .004, whereas the unique contribution of the perceived intragroup similarities measure was nonsignificant, $\beta = .20$, t(17) = 1.06, p = .306; overall $R^2 =$.43, F(2, 17) = 6.41, p < .008. Confirming the expected moderation effect, when entered in the second step, the interaction term received a significant and positive regression weight, t(16) = 4.63, p < .001, $\Delta R^2 = .33$, $\Delta F(1, 16) = 21.41, p < .001$. To further decompose this interaction, we conducted a median split on the perceived intragroup similarities measure (Mdn = 3.50)and computed separate correlations for the 10 participants above and the 10 participants below the median. For participants above the median, empathy was almost perfectly correlated with helping, r(8) = .97, p < .001, whereas the predictive value of empathy was nonsignificant among participants below the median, r(8) = -.23, p = .521, z = 4.35, p < .001. Analogous analyses using the dichotomous helping measure as the criterion variable replicated these results, above median, $r_{bb}(8) = .81$, p = .004; below median, $r_{pb}(8) = -.23$, p = .521, z = 2.55, p = .010. Taken together, these analyses thus provide encouraging evidence for the hypothesized role of perceived intragroup similarities in regulating the role of empathy in ingroup helping.

Because in Experiment 2 the number of participants in the ingroup condition was relatively small (n = 20), we were motivated to further substantiate the robustness of our findings. We had the opportunity to replicate the critical Empathy × Perceived Intragroup Similarities interaction in the context of an independent laboratory experiment that used a similar modified minimal group paradigm and equivalent measures of empathy, intragroup similarities, and helping (Stürmer & Siem, 2005). The main purpose of that experiment was to explore effects of the temporal sequence in which information about the target's group membership is presented on helping (either before or after learning about the target's predicament), but one of the ingroup conditions of this experiment was very similar to the ingroup condition of the present experiment. This condition included 15 female and 9 male students from the University of Kiel, M age = 22.00 years, SD = 2.43 years. Performing analogous moderation analyses as in Experiment 2 in this independent data set replicated all relevant findings. When entered in the second step, the Empathy \times Perceived Intragroup Similarities interaction term received a (marginally) significant regression weight, t(20) = 1.78, p = .091, $\Delta R^2 = .11$, $\Delta F(1)$, 20) = 3.16, p = .091. Moreover, for participants scoring above the median on the intragroup similarities measure (Mdn = 2.00), empathy was a significant predictor of helping, r(9) = .64, p = .033, r_{pb} (9) = .61, p = .047, whereas the predictive value of empathy was nonsignificant among participants below the median, r(8) = .16, $p = .652, r_{bb}$ (8) = .06, p = .879. Moreover, conducting an analogous moderation analysis in a sample collapsed across participants of the critical conditions of the two experiments (N=44) further substantiated these results, for the critical interaction term, t(40) = 3.28, p = .002, $\Delta R^2 = .18, \Delta F(1, 40) = 10.74, p = .002$; for the test of the interaction in a hierarchical logistic regression with the dichotomous measure as criterion, Wald's $\chi^2(1, N=44) =$ 6.97, p = .008, $\Delta \chi^2(1, N = 44) = 10.73$, p = .001. In sum, these additional analyses significantly strengthened our confidence in the validity and robustness of the findings obtained in Experiment 2.

DISCUSSION

The present experiment demonstrates that even a seemingly trivial ingroup/outgroup categorization can be sufficient to evoke ingroup/outgroup differences in empathy-motivated helping. For the present data, we can therefore rule out that alternative factors typically confounded with ingroup/outgroup categorizations in natural intergroup settings (e.g., relationship history, conflict of interests, stereotypes) are responsible for the observed moderation effect. As in Experiment 1, the relation between empathy and (in)group helping held up when we controlled for alternative explanations of the empathy-helping relationship (interpersonal oneness, sadness, distress). These results and those of previous studies (Batson et al., 1997; Stürmer et al., 2005) render these alternatives unlikely as alternative explanations of the empathy- (ingroup) helping relation.

Another conceptually significant finding of Experiment 2 concerns the psychological mechanisms underlying the empathy- (ingroup) helping relation. Specifically, moderational analyses in the ingroup condition confirmed that the impact of empathy on helping systematically varied as a function of perceived intragroup similarities. We successfully replicated the critical analyses in the context of an independent laboratory experiment using a similar research paradigm as well as in the sample created by collapsing participants of the critical ingroup conditions across the two experiments. Taken together, these analyses clearly support the proposition that when common group membership is salient, the perception of group-based self-other similarities regulates the empathy-helping relationship.

GENERAL DISCUSSION

The main objective of the two laboratory experiments presented here was to test a group-level perspective on empathy-motivated helping. Informed by an evolutionary perspective on human altruism (e.g., Burnstein et al., 1994; Cunningham, 1986; also Park & Schaller, 2005) and building on the idea of psychological essentialism (e.g., Medin & Ortony, 1989; Rothbart & Taylor, 1992), our group-level perspective suggests that similar group membership between the helper and the target strengthens the role of empathy in helping, whereas dissimilar group membership renders empathymotivated helping less likely. In line with this perspective and confirming our specific Empathy × Group Membership Moderation hypothesis, each experiment demonstrated that empathy had a stronger effect on helping when the helpee was an ingroup member than when the helpee was an outgroup member. Including Stürmer et al.'s (2005) studies, the Empathy × Group Membership Moderation hypothesis has thus been confirmed in four different studies employing different research methodologies (field research vs. controlled experimentation) and focusing on different intergroup contexts (natural vs. artificial groups) and different helping criteria (helping intentions vs. actual help). In addition, other researchers have observed similar ingroup/outgroup differences in empathy-motivated helping (e.g., Penner & Finkelstein, 1998). The convergence of empirical evidence thus speaks strongly and persuasively for the validity and generalizability of a group-level perspective on empathy.

Some researchers have hypothesized that empathy may affect helping across ingroup/outgroup boundaries (e.g., Batson et al., 1997). Given the research reported earlier (including the present experiments), it seems more likely, however, that as ingroup/outgroup distinctions are salient, empathy-motivated helping is typically restricted to "us," whereas empathy-motivated helping across group boundaries to "them" is less likely. From our group-level perspective, one could argue, however, that the likelihood of empathy-motivated outgroup helping increases as the outgroup is perceived as relatively similar to the ingroup. This should be so because perceptions of intergroup similarities should facilitate the attribution of a common essence shared by members of both the ingroup and the outgroup. In fact, a recent experimental study in the context of intercultural helping provides encouraging evidence for this reasoning (Siem & Stürmer, 2005).

Some may wonder why our experiments-which demonstrated significant ingroup/outgroup differences in the role of empathy-did not also show significant ingroup/outgroup differences in the amount of help provided or in the strength of the intentions to do so. With regard to this issue, it should be taken into account that our experiments tested the effects of ingroup/outgroup categorizations in a very benign contact situation (in which students conversed with a fellow student in a research laboratory). As documented by previous research, overt outgroup discrimination in helping in such situations is rare (see Saucier et al., 2005). For the present experiments it seems quite possible for instance that the benign nature of contact in our experiments facilitated motivational processes that led participants to help outgroup members despite a lack of empathic motivation to do so (e.g., normative considerations and/or the desire to appear unprejudiced, Gaertner and Dovidio, 1977; Pryor et al., 2004). In intergroup contexts that are marked by conflict and animosity, such "compensatory" processes may be less likely to produce intergroup helping. Accordingly, in such contexts the consequences of the lack of empathic motivation should be far more severe, with outgroupers being unlikely to be helped or even actively discriminated against in helping.

The design of our experiments on empathy does not allow us to precisely delineate the processes that led our participants to help an outgroup target, and we acknowledge this as a major limitation of the present work. It is telling, however, that in both experiments none of the "need-related" emotions (empathy, sadness, distress) that were in the focus of our research proved as a significant predictor of outgroup helping. At a more general level, this observation falls in line with previous research suggesting that when people contemplate offering help to an outgroup member they may be generally more hesitant to let themselves be guided by spontaneous experiences and base their decision on systematic and controlled information processing instead (e.g., Pryor et al., 2004).

Before closing, we also wish to comment on important implications of our experiments for research on the relationships among empathy, interpersonal oneness, and helping. Cialdini and colleagues suggested that empathy serves merely as an emotional signal for interpersonal oneness, and that it is the perception of oneness and not empathy that ultimately promotes helping (Cialdini et al., 1997; Maner et al., 2002). In fact, in both Experiments 1 and 2, in the ingroup conditions, our measures of empathy and interpersonal oneness were positively correlated, $n \ge .33$, $p \le .064$. Moreover, in both experiments, in the ingroup conditions, interpersonal oneness emerged as a unique predictor of helping intentions (or helping) even when empathy, sadness, and distress were considered as additional predictors. However, in contrast to Cialdini et al.'s (1997) perspective but in line with our reasoning, in these analyses empathy was also a significant and unique predictor of helping intentions (or helping). Based on the present findings (and other research demonstrating a unique role of empathy in helping, e.g., Batson et al., 1997; Stürmer et al., 2005, Study 2), instead of assuming that empathy serves merely as a signal for oneness, it could be argued that empathy and interpersonal oneness may in fact represent two related but distinct sources of people's motivation to help. Cialdini and colleagues investigated the role of oneness in the context of cues indicating relationship closeness (Cialdini et al., 1997; Maner et al., 2002), whereas our own research focused on helping a stranger who happened to be an ingroup or an outgroup member. One might speculate then that the relevance of interpersonal oneness on one hand and feelings of empathy on the other hand in helping is contingent on the salience of different kinds of relationship cues, with oneness-based helping being more closely tied to cues indicating familiarity and close interpersonal relationships and empathy-based helping being more closely tied to perceptions of selfother similarity.

CONCLUSION

A starting point of the present research was the proposition that the motivations for helping "us" versus helping "them" are often of a fundamentally different nature (see Dovidio et al., 1997; Omoto & Snyder, 2002; Simon et al., 2000; Stürmer et al., 2005). Our two experiments clearly substantiate this proposition in that they show that even in benign intergroup encounters, empathy is "deactivated" as a significant motivator of helping outgroup members. Our group-level perspective suggests that the role of empathy in helping is contingent on perceived group-level (dis)similarities. Accordingly, intervention programs designed to emphasize commonalities rather than differences between groups could provide promising opportunities to increase empathymotivated outgroup helping.

NOTES

1. Following Cialdini et al. (1997), the questionnaire also included the adjective *heavy-hearted* as an indicator of sadness. However, unexpectedly, including this item in the sadness scale decreased the measure's internal consistency (Cronbach's $\alpha = .49$). Therefore, we did not consider this item further.

2. We observed greater variation of empathy in the outgroup condition than in the ingroup condition, Levene's F = 4.13, p = .049. It should be noted, however, that smaller variance in the ingroup

condition would actually restrict the chance to detect the hypothesized relation between empathy and ingroup helping. It thus seems unlikely that the observed difference in the strength of the empathy-helping relationship is due to differing variances in empathy.

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Received August 1, 2005

Revision accepted January 14, 2006