

TESTING THE EMPATHY-ALTRUISM HYPOTHESIS

By Benjamin T. Mills

Feelings of empathic concern for a person in need predicts helping of that person, but there are two competing theoretical explanations for this helping motivation. According to the Empathy-Altruism Hypothesis (EAH), the motivation produced by empathic concern is altruistic. However, an alternative explanation for this relationship is that empathic concern produces one or more egoistic motivations that alone or simultaneously are responsible for helping.

The goal of the present study was to test the EAH against this simultaneous egoistic hypothesis (SEH). Specifically, 160 undergraduate students enrolled at the University of Wisconsin Oshkosh were told that they and another ostensible student were participating in a study designed to analyze the effects of communication with another person on reactions to tasks and task performance. Participants received a written communication from the ostensible student who discussed a recent breakup with a significant other. Perspective taking was manipulated to produce feelings of empathic concern for the ostensible student. Also manipulated across ten experimental conditions were dissimilarity to the ostensible student in need, likelihood of need improvement of the student, and ease of psychological escape from the person in need. Empathic concern for the person in need was measured, as was whether participants requested feedback about the ostensible student's performance on a task that could potentially result in a positive outcome for the ostensible student.

Results revealed evidence that all manipulations except for the psychological escape manipulation were successful. Consideration of feedback requests across all ten experimental conditions provided no clear evidence of predictive superiority of either the EAH or SEH explanations. However, results across three critical test conditions suggested the pattern of requested feedback more closely resembled the predictions made by the EAH than those made by the SEH.

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Benjamin T. Mills

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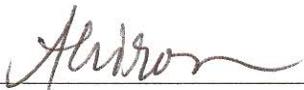
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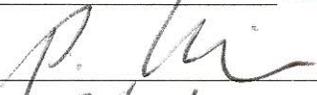
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PROVOST AND
VICE CHANCELLOR
FOR ACADEMIC AFFAIRS

Advisor 

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Member FORMAT APPROVAL



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Introduction

The Empathy-Altruism Hypothesis (EAH) states that empathic concern produces altruistic motivation. Consistent with this hypothesis, much research has found that those feeling relatively high levels of empathic concern are more likely to help those in need than are those feeling relatively low levels of empathic concern (Batson, 2011). However, eight egoistic alternative explanations to the EAH have been proposed to explain the association between empathic concern and helping. When tested individually against the EAH, most experimental studies have found evidence consistent with the EAH as opposed to the egoistic alternative explanations (Batson, 2011). Although evidence seems to favor the EAH, some have suggested that findings consistent with the EAH may be explained by assuming a combination of multiple egoistic motives work together to generate participant responses that appear consistent with the EAH (Cialdini, Schaller, Houlihan, Arps, Fultz, & Beaman, 1987). The purpose of the present research was to test the SEH against the EAH.

Defining Empathic Concern

There are multiple definitions for the term empathy (Batson, 2009; Lishner, Hong, Jiang, Vitacco, & Neuman, 2015) but for the sake of this study we will use Batson's (2011) definition which states that empathy or empathic concern is an "other oriented emotion elicited by and congruent with the perceived welfare of someone in need" (Batson, 2011, p. 11). Batson's model of the EAH (see Figure 1) shows that there are two

precursors to empathic concern. For another to elicit empathic concern, one must perceive that other as being in need and one must value that other's welfare. Nussbaum (2001) refers to this valuing of another as "value extension." If one does not view another as being in need but does value that other's welfare, then one will not experience empathic concern for that other. Conversely, if one feels ambivalent about the welfare of another, one will not feel empathic concern for that other even if that other is in need.

Defining Altruism

Altruism is defined as a motivational state with the ultimate goal of increasing another's welfare (Batson, 2011). Two main facets of this definition must be addressed. First, altruism is a motivational state, which means that the EAH does not account for people who are predisposed to be altruistic (trait altruism) but is instead concerned with whether an altruistic motivation is within the motivational repertoire of people in general. For the purposes of this definition, altruism is a goal-directed state. A reflexive action that benefits another with no benefit to one's self is not considered an altruistic action according to this definition. One must have a goal to benefit another as an end itself for the action to be considered altruistic.

The second part of the definition of altruism pertains to increasing another's welfare. The difference between egoistic motivation and altruistic motivation is the person toward whom the motivation is directed. Both egoism and altruism are motivational states that seek to increase a person's welfare. However, altruism seeks to ultimately benefit the other, whereas egoism seeks to ultimately benefit the self. This

difference is the focal point for at least eight potential egoistic motives that have been suggested to explain helping produced by empathic concern. The egoistic alternatives argue that a person who is motivated to benefit another is still acting egoistically because the person is either looking to gain a reward (e.g., feel good for helping), avoid a punishment (e.g., avoid feeling guilty for not helping), escape unpleasant arousal, or indirectly benefit aspects of the self. The EAH recognizes that egoistic motivation is often a driving force behind helping behavior. Where the egoistic alternatives and the EAH disagree is that the EAH assumes helping can be at least partially directed toward benefitting another as an end, whereas the egoistic alternatives assume helping is never directed toward benefitting another as an end.

The Empathy-Altruism Hypothesis

Coke, Batson, and McDavis (1978) originally framed the EAH, stating that altruism is created by feeling empathic concern for a person in need. As is shown in Figure 1, the perception of another as being in need and the valuing of that other's welfare elicits empathic concern, which then produces an altruistic motivation to increase the other's welfare by reducing the other's need (Batson, 2011). This is not to suggest that altruism is the only product of perceiving need in another. The perception of need can lead to many egoistic motives as well as altruistic ones. Perceiving need in another may elicit empathic concern and altruistic motivation but the perception of need could also produce motivations to reduce the need of the other to achieve various egoistic goals. For instance, the avoidance of guilt is an egoistic motivation, but it may be congruent

with an altruistic motivation to see that other's situation improved in some situations. Moreover, if there are egoistic and altruistic motives that direct one to better another's situation and they are not in conflict, the combined motives should create an increased desire to have that other's situation improved (the egoistic and altruistic motives are additive).

Egoistic Alternative Explanations to the Empathy-Altruism Hypothesis

Eight egoistic alternatives have been suggested to account for findings that appear consistent with the EAH. Their descriptions and research testing them against the EAH are discussed below.

Aversive arousal reduction. According to the aversive-arousal reduction hypothesis (AARH), the empathic concern that is created when a person perceives another as being in need and values that other's welfare is experienced as an aversive condition. Consequently, the AARH suggests that the ultimate goal of the motivation produced by empathic concern is to reduce the aversive experience of empathic concern (Batson, 2011). The goal of the AARH is to eliminate the feelings of empathic concern resulting in a reduction to the aversive arousal that empathic concern creates. Because of this, having the other's need reduced is not a necessity. Although one could eliminate the empathic concern for another by helping to have the need reduced, one could alternatively escape the situation so that the other's need is no longer salient. Without the perception of another in need, empathic concern is no longer experienced according to the AARH.

There have been multiple studies addressing whether physical escape (Coke et al, 1978; Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Toi & Batson, 1982) and psychological escape (Stocks, Lishner, & Decker, 2009) reduces helping by those feeling empathic concern. The studies that addressed physical escape all used a similar paradigm in which participants were given an opportunity to help a person in need. In the easy-escape condition, participants were informed that they would not be faced with the other's continued suffering if they chose not to help. In the difficult-escape condition, participants were informed that if they did not help the other in need, the participants would then continue to see the other suffering. The results of these physical escape studies showed that participants manipulated to experience high empathic concern for another were more likely to choose to help the other in need rather than escape, regardless of whether escape was easy or difficult. These results support the EAH. For the results to support the AARH, the high-empathic concern participants would have had to report that they were more likely to help the other in need only when escape was difficult.

The main argument against the results of these physical escape studies is that the participants in the physical escape studies were offered only one route psychologically to escape the aversive empathic concern. If a participant chose not to help the other in need in the easy-escape condition, it is possible that he or she anticipated continued thoughts about the other in need and expected to continue feeling aversive empathic concern for that other. This explanation could account for the results shown in the physical escape studies and still maintain the AARH as a possible explanation of the findings. In response

to this possibility, Stocks et al. (2009) designed two experiments. In the first experiment participants in the easy-escape condition were told that they would receive memory training that would cause them to not remember the communication from the other in need after the study had concluded. In the difficult-escape condition, participants were told that they would receive memory training that would cause them to remember the other in need long after the experiment had concluded. By creating the belief that they would no longer feel empathic concern for the person in need after leaving the study, participants in the easy-escape condition were able to choose whether they would help without the threat of future aversive empathic concern. In the second experiment, the difficult-escape condition was replaced by a no information condition in order to test the assumption that empathic concern promotes desire for psychological escape. For the first experiment, contrast variables were created for both the AARH and the EAH and logistic regression analyses were conducted using those two variables. The results of the logistic regression using the AARH variable found no statistically significant results ($p=.38$), the results of the logistic regression using the EAH variable, however, did achieve statistically significant results ($p=.02$). This suggests that while there was no clear impact of ease of psychological escape on helping (as the AARH predicts) there is a clear indicator that perspective taking (empathic concern) had an effect on helping motivation (as the EAH predicts). The results of the second experiment were similar to those of the first in that a logistic regression using a contrast variable based on what the AARH would predict produced statistically nonsignificant results ($p=.41$) and a contrast variable based on what the EAH would predict produced statistically significant results ($p < .05$). In this

study, Stocks et al. found that perspective taking did increase empathic concern but did not increase one's need to psychologically escape. These results not only supported the EAH, but also suggested a difference between high levels of empathic concern and a need to psychologically escape.

Avoiding negative social evaluation. There are two egoistic alternative explanations that focus on Empathy-Specific Punishment (ESP). According to the first, a person feeling empathic concern is motivated to help another in need to avoid punishment in the form of negative social evaluation for not helping (ESP-Soc; Archer, Diaz-Loving, Gollwitzer, Davis, & Foushee, 1981). If this explanation is correct, then one should help the other in need when a high level of empathic concern is felt for the other regardless of ease of escape so long as the helping opportunity is public. When the helping opportunity is anonymous, one will choose not to help the other in need as there are no negative social consequences to avoid (Batson, 2011).

The ESP-Soc hypothesis was tested in three separate experiments (Archer et al, 1981; Fultz, Batson, Fortenbach, McCarthy, & Varney, 1986). In a study by Archer et al (1981), the researcher placed electrodes on the hands of participants and explained that the machine in the room would display the participants' arousal level for each of two recordings they were to hear. The researcher had control over the display on the machine so that the participants' perceived arousal levels could be manipulated. Half of the participants were told that the researcher would be blind to their arousal levels; (no social evaluation), the remaining participants were told that the researcher could see their arousal levels on a screen in the next room (social evaluation). All participants first

listened to a recording of a neutral announcement for an anthropology class to attain a base line arousal level for each participant. Following the first recording, all participants listened to a recording of a young woman asking for volunteers for her research project who were willing to participate for free as she had no money to compensate them. During this first recording, participants were manipulated to believe that their arousal levels were low. During the second recording, half of the participants observed their arousal levels rising, whereas the other half observed low arousal levels in line with those observed during the first recording. Afterwards, the participant received a helping opportunity in which the ostensible other asked (via a letter) if the participant would volunteer his or her time. Contrary to the predictions of the EAH, the results of this study suggested a significant drop in reported helping in the high empathic concern/social evaluation/low perceived arousal condition compared to the other high empathic concern conditions.

In a study by Fultz et al. (1986), two experiments were conducted looking at empathic concern based helping behaviors and negative social evaluation. In each of these experiments, the participants were manipulated to believe that there was another participant volunteering in a separate room. The participants received two communications from the fictitious other. The first communication was introductory and innocuous, and the second communication was designed to elicit empathic concern and explained how the sender of the communications often felt lost and lonely. Following the second communication, the participants were given an opportunity to spend time with the other by participating in an additional study for no credit. This opportunity to volunteer for an additional study gave the participants an opportunity to help the other by easing his

or her loneliness without the risk of negative social evaluation as the participants were told that the other would never know if the participants declined. The second of the two experiments also manipulated levels of empathic concern (high versus low) as well as the potential for negative social evaluation for not helping (high versus low). The results for both experiments showed support for the EAH in that participants in the high empathic concern conditions ($M = 2.13$) chose to help more often than did those in the low empathic concern conditions ($M = .94$) regardless of the presence of risk for negative social evaluation. The ESP-Soc hypothesis was not supported.

Avoiding negative self-evaluation. The second of the two ESP explanations pertains to avoiding negative self-evaluation (ESP-Self). ESP-Self proposes that feeling empathic concern produces motivation to avoid punishments administered to the self, as well as negative self-evaluation such as guilt that would result if one did not attempt to help another in need (Batson, 1987). As the punishment that one is attempting to avoid is originating from the self, it does not matter if the helping opportunity is public or private. However, if an individual chooses to help another in need, the helping must be effective at removing or reducing the need. If the helping fails to reduce or eliminate the other's need, the helper will still experience the self-punishment. If the person chooses not to help the other in need, the person must have suitable justification for why he or she did not help or else the person will still experience the self-punishment (Batson, 2011).

Six experiments were conducted to test the ESP-Self hypothesis against the EAH by Batson, Dyck, Brandt, Batson, Powell, McMaster, & Griffitt (1988). Four of these experiments were conducted using two different methods of eliciting empathic concern

for another in need. In two of the experiments, researchers elicited empathic concern by giving participants information about a fictitious college student named Katie Banks. Participants learned that Katie was attempting to support her two younger siblings in the wake of a car accident that killed their parents. To elicit empathic concern in the other two experiments, participants were told there were other ostensible participants attempting to avoid receiving shocks. In both experiments using shocks and one of the Katie Banks experiments, justification for not helping (high vs low) was manipulated. In the second Katie Banks experiment, participants were given a Stroop task in which they were given words written in various colors and asked to say the color of the word aloud. Included in the word-bank were punishment words like "guilt" and story-relevant words like "adopt." Measurements were taken on the time it took for participants to state the color of each word. In the three experiments that contained justification for not helping conditions, the results showed support for the EAH in that, regardless of justification condition, participants in the high empathic concern conditions reported more helping than did those in the low empathic concern conditions. In the experiment that used the Stroop task, the results showed a positive correlation between the more need-specific words (such as "adopt") and the helping measures in the high empathic concern conditions ($p < .01$) as predicted by the EAH. There was not a significant reduction in speed of stating the color of written words associated with judgment (i.e., guilt) as the ESP-Self hypothesis predicted. The ESP-Self hypothesis did not find support in any of Batson et al.'s (1988) experiments.

Batson and Weeks (1996) conducted two experiments to compare the EAH and the ESP-Self hypothesis. In both experiments, participants were told that an ostensible participant was simultaneously taking part in the study and that he or she had electrodes attached to him or her. Participants were told that the electrode would administer a painful but not harmful shock to the ostensible other if both the other and the actual participants did not successfully complete an assigned task. The first experiment was designed so that the participants would always fail the task (failed to help), causing the fictitious other to receive the shock. Empathic concern (low vs high) and justification for not helping (low vs high) were manipulated in the first experiment. In the second experiment the same procedure was used, but now the participants were always told that they had succeeded in their task, whereas the ostensible other failed his or her task, resulting in a shock to the ostensible other. As in the first experiment, empathic concern (low vs high) was manipulated. Justification for not helping was not manipulated in the second study, as the participants were able to successfully complete their task thus providing an opportunity for the other to avoid the shock. In both experiments, participants' moods were measured both before and after the task to determine the participants' reactions to the outcome of the study. As the EAH predicted, participants experienced more negative mood change in the high empathic concern condition than in the low empathic concern condition regardless of justification for not helping in both experiments. The ESP-Self hypothesis was not supported.

Seeking social or self-rewards for helping. Similar but opposite to the empathy-specific punishment hypothesis, the empathy-specific reward hypothesis suggests that

feeling empathic concern increases motivation to obtain rewards for helping such as pride in one's self or praise from others (Batson, 2011). To gain these rewards, one seeks to reduce or remove the need of another for whom he or she experiences empathic concern. The empathy-specific reward hypothesis includes three distinct egoistic explanations for the findings that support the EAH. The first of these three is empathy-specific social or self-rewards (ESR). According to the ESR hypothesis, one can receive social rewards for attempting to help, even if the attempt is unsuccessful. However, if the need is removed before one is able to attempt a helping behavior, one should experience a negative mood, as his or her opportunity for social or self-reward has been removed.

The same two studies that examined the ESP-Self hypothesis also examined the ESR hypothesis in relation to the EAH (e.g., Batson et al., 1988; Batson & Weeks, 1996). Batson et al. (1988) conducted two experiments pertaining to the ESR hypothesis. In the first experiment, participants listened to an ostensible other participant speak about how nervous the ostensible other was about the potential painful shock they might receive during the study. Before being given an opportunity to help, the participants were told whether the other's need still existed (prior relief versus no prior relief). The participants were also told whether they would perform a helping task. The previously discussed experiment using the Katie Banks protocol and the Stroop-like task were also used to examine the ESR hypothesis. In this experiment, participants were expected to take longer to state the color of written words that had to do with reward such as the word "praise." The EAH predicted longer pauses when stating the color of need-relevant words such as "adopt" (Batson, 2011). In the first experiment, only participants in the high

empathic concern/no prior relief of need/no helping opportunity condition experienced significant negative mood changes, as predicted by the EAH. In the second experiment, participants took significantly longer to state the color of need-specific words such as “adopt,” also as predicted by the EAH. Neither of the experiments showed support for the ESR hypothesis.

Batson & Weeks (1996) published another study that also addressed the ESR hypothesis in which participants were told that a fictitious other participant was to receive painful electric shocks if both participants failed to successfully complete their tasks. As the EAH predicted, participants showed significantly more negative mood in the high empathic concern condition when helping attempts failed (experiment 1) or when the helping attempts succeeded but the need was not removed (experiment 2). The ESR hypothesis predicts that even if helping attempts fail or are unsuccessful at removing the other’s need, the helper should still feel rewarded for attempting to help the other in need. As this was not the case, the ESR hypothesis was not supported in either of the experiments in this study.

Empathic joy. The Empathic Joy (EJ) hypothesis is the second of the three reward-seeking egoistic alternatives. According to the EJ hypothesis, a person who experiences empathic concern for another in need is motivated to have that other’s need removed so that the person experiencing the empathic concern can vicariously share in the relief the other feels to have their need removed (Batson, 2011). There are three important points to make regarding this hypothesis. First, if the EJ hypothesis is correct, a person need not be the one engaging in the helping activity to feel the vicarious joy. One

needs only to learn that the other's need has been removed or reduced. The second point is that for one to be able to experience the vicarious relief of the other, one must receive information that the other's need has been removed or reduced. This means that if one does not somehow learn of the other's need reduction (through witnessing the need being removed or reduced first hand or through some other feedback) then one cannot vicariously experience the relief. Third, if it is not likely that the other's need will be reduced or removed, then it is unlikely that the other will feel relief with which to share vicariously. If it is unlikely for the other to experience relief, according to the EJ hypothesis, a person will not seek out information as to whether the other's need was reduced (Batson, 2011).

The EJ hypothesis has been tested in four experiments across two studies with mixed results. The first study was conducted by the originators of the EJ hypothesis: Smith, Keating, and Stotland (1989). In the experiment, participants were told that participants in a previous study were videotaped while being interviewed about events in their lives on campus. Prior to watching the video, participants were given a set of instructions that asked them to either focus on what the person being interviewed does (low empathic concern condition) or asked them to imagine themselves in the situation that the person being interviewed describes (high empathic concern condition). The participants were then shown a brief interview of a female student (played by an actor). In the recording, the actor describes the difficulties she was having adjusting to some aspects of college life and she explained that she could use some advice/input from another student. After the video was concluded, participants completed a feelings

questionnaire and were given the option to both read a written statement from the female in the video and offer her written advice that she would receive the next day or watch another tape of a different student being interviewed. Half of the participants were told that if they chose to offer advice that they would receive feedback from the female in the interview, the other half were not told that they would receive any feedback.

The initial results of the experiment supported the EAH. Participants in the imagine-other condition offered advice regardless of whether they expected to receive feedback (Smith et al., 1989). These initial results did not support the EJ hypothesis. However, an internal analysis using a measure created by subtracting self-reported distress from self-reported empathic concern yielded different results. Using this model, participants in the “imagine other” condition chose to help when they were told they would receive feedback and showed no difference in helping behavior compared to the objective conditions when they were not told they would receive feedback. These results supported the EJ hypothesis and did not support the EAH. However, Batson (2011) and Batson, Batson, Slingsby, Harrell, Peekna, & Todd (1991) suggest that the result of the internal analysis could be attributable to the fact that participants were not experiencing personal distress created by awareness of the need, but instead were experiencing other-oriented distress resulting from the perceived need of the other participant. Additionally, Batson (2011) suggests that it is possible that it was not a failed manipulation but a failed manipulation check.

Batson et al. (1991) conducted three experiments to test the EJ hypothesis. The first experiment was designed to be a conceptual replication of the Smith, Keating, and

Stotland (1989) study using the Katie Banks protocol. In this study, participants were told they would be listening to a pilot radio broadcast about student life. Prior to listening to the broadcast, participants were given instructions to listen to what the speaker says (objective; low empathic concern) or to imagine themselves in the situation that the speaker describes (imagine other; high empathic concern). In the news broadcast, Katie Banks explained how she was trying to support her two younger siblings while attempting to finish college in the wake of losing their parents in a fatal car crash. After listening to the broadcast, participants were given the opportunity to help Katie by volunteering time stuffing envelopes for various charity groups that could offer her and her family aid. Before the participants were given the opportunity to offer help, they were either told that they would either get feedback on Katie's situation, told that they would not receive any feedback, or they were not told whether they would receive feedback. The results of this experiment supported the EAH in that significantly more participants in the imagine-other condition offered help than those in the objective condition regardless of feedback condition.

In the second and third experiments, Batson et al. (1991) used a method that diverged from the Smith et al. (1989) study. In Experiments 2 and 3, the researchers presented the participants with an interview of a person in need but did not allow the participants an opportunity to help. Prior to being exposed to the interview, participants' perspectives were manipulated using instructions to either watch and listen to what the interviewee was doing and saying (objective) or to imagine themselves in the position being described by the interviewee (imagine other). In Experiment 2, a video interview

was shown of a girl struggling with college life. In Experiment 3, the Katie Banks radio broadcast was used. After the participants were finished observing the interview, they were either told that there was a high or low chance of the interviewee's situation being improved before they recorded a follow-up interview. Participants were then given the option either to view the follow-up interview or to view an interview starring a new person. In support of the EAH, participants in the imagine-other conditions chose to see a follow-up interview significantly more often than did participants in the objective conditions, regardless of the likelihood that the interviewee's situation would have improved, in both experiments. The EJ hypothesis was not supported by the results of either experiment.

Negative-state relief. The last of the three reward-seeking egoistic alternative explanations is the seeking negative-state relief (NSR) hypothesis. This hypothesis was originated by Cialdini, Schaller, Houlihan, Arps, Fultz, & Beaman, (1987) and states that feeling empathic concern carries with it a temporary state of sadness that any mood-uplifting experience can help remedy. This includes the positive mood enhancing rewards one might receive when helping the person in need that originally elicited the empathic concern. The goal that leads a person to help another in need is what differentiates the NSR and the EAH. The EAH states that the ultimate goal of a person feeling empathic concern is to have the other's welfare increased, the NSR's ultimate goal is to increase one's own mood and helping another in need may be a means to that end (see Table 1).

There are several situations, unrelated to the other's need being reduced, in which the NSR hypothesis predicts that a person's helping motivation will be extinguished.

According to the NSR hypothesis, if a person feeling empathic concern receives some form of mood enhancement (e.g., praise) prior to receiving an opportunity to help the other in need or believes that he or she will receive a mood enhancement in the near future then that person's helping motivation will disappear (Batson, 1989). The NSR hypothesis also predicts that if a person believes that helping will not improve his or her own mood, helping motivation will disappear. Conversely, for each of these instances, the EAH predicts that the person would still be motivated to help the person in need (Batson, 2011).

Ten experiments over seven studies were conducted testing the NSR hypothesis with mixed results. Two experiments were conducted by Cialdini et al. (1987). In one experiment, an ostensible other participant was shown receiving several shocks after which the actual participants were either given a dollar (payment condition), were told they did exceptionally well on a previously completed questionnaire (praise condition) or were told nothing (no reward condition). Participants were then given the option to take some, all, or none of the remaining shocks for the ostensible other. Prior to choosing whether to help the other, participants were told that if they refused to help they would either leave the study at that point (easy escape) or remain and watch eight more trials of the other receiving shocks (difficult escape). The results were in support of the NSR hypothesis. Specifically, participants who were given a reward prior to the helping opportunity (payment and praise conditions) helped less than did participants who received no reward prior to the helping opportunity. The EAH was not supported.

In the second experiment, participants were given a sugar pill at the beginning of the procedure (Cialdini et al., 1987). The participants then listened to a five-minute radio broadcast of a college girl describing the difficulties in her life since a recent accident that had left her with two broken legs. Following the broadcast, the participants were either told that the pill they took earlier would inhibit them from feeling any changes in their current mood for the next half hour (fixed mood) or were told nothing about the effects of the pill (no fixed mood). The participants were then given an opportunity to help the girl from the broadcast by going over lecture notes with her to help her catch up on missed course work. The results of the study were in support of the NSR hypothesis in that participants who were told that their mood would remain static resulting from the pill were less likely to help than were participants who were told nothing about the effects of the pill. The EAH was not supported.

Schroeder, Dovidio, Sibicky, Matthews, and Allen (1988) conducted a similar study at the same time as the study by Cialdini et al. (1987). The procedure was almost identical to the sugar pill procedure of Cialdini et al.'s (1987) second experiment with one major difference: the participants were told (or not told) of the effect of the sugar pill on 'locking' their mood prior to hearing the interview, rather than after. Both Batson (2011) and Schroeder et al. (1988) agree that a weakness in the Cialdini et al. (1987) study's design was the potential for distracting the participants directly before the helping measure by telling them the effect of the pill just prior. The results of the Schroeder et al. (1988) study supported the EAH in that participants were more likely to help in the high

empathic concern condition than in the low empathic concern condition regardless of whether they anticipated a more positive mood for helping. The NSR was not supported.

Schaller and Cialdini (1988) also used a similar procedure to the second experiment in Cialdini et al.'s (1987) study. In this experiment, participants were told that they would be pilot testing several short radio broadcast interviews. Half of the participants were told that after listening to an interview, they would listen to a comedy broadcast (anticipated mood enhancing) and the other half of the participants were told that after listening to an interview, they would then listen to a broadcast on current events (no anticipated mood enhancing). The interview broadcast was again a story about a college student who was struggling with school after suffering from two broken legs. After the interview broadcast, participants were given an opportunity to assist the college student in need. The results of the helping measure supported the NSR hypothesis in that participants who were told they would be listening to a comedy broadcast following the request for help offered to help less than did participants who were told they would listen to a current events broadcast following the helping opportunity. The EAH was not supported.

In a study by Dovidio, Allen, and Schroeder (1990) participants were asked to read perspective taking instructions (objective versus imagine other) and then listen to an interview of a female college student discussing how she was ill. Following the broadcast, participants were given the opportunity to help the girl with the need that elicited empathic concern (her illness; empathic concern-related helping condition) or a separate need (not her illness; non-empathic concern-related helping condition). The

results of this study supported the EAH in that participants for whom empathic concern was manipulated helped more when the helping opportunity was related to removing the need that elicited the empathic concern. The NSR hypothesis was not supported.

Oneness hypothesis. Perceived oneness or ‘self-other merging’ is an eighth competing egoistic alternative explanation to the EAH. The oneness hypothesis suggests that “when one takes the perspective of another (either through instructions or a feeling of attachment) and vicariously experiences what the other is experiencing, one comes to incorporate the self within the boundaries of the other” (Cialdini et al. 1997, p. 482). Oneness has been said to occur when another’s welfare promotes one’s own welfare or when a similarity is shared with another (e.g., common social group membership, similar interests, etc.; Hornstein, 1978). The oneness hypothesis suggests that conditions which increase empathic concern (i.e., perceiving another to be in need and valuing their welfare) also increase perceptions that the other possesses aspects of the self, eliciting a perceived merging of the self and other. According to the oneness hypothesis, this perceived merging would then create a vicarious sense of relief if the other’s need is reduced or eliminated. The perception of similarities as well as the need to receive information about whether the other’s need was reduced are both required for one to attempt to help another in need according to the oneness hypothesis, but neither are requisites of the EAH.

In a study by Cialdini et al. (1997), three similar experiments were conducted using participants’ recollection of others ranging from close family members (closest possible) to near-strangers (someone you would recognize on the street but not know well

enough to say “hello” to). The participants were then asked to imagine that the other they had recalled was in a situation of need. In the first study, the need situation was that the other was just evicted from their apartment. In the second study the other’s hypothetical need was that he or she had died leaving their two children as orphans. In the final study, participants were split into three groups; one group was told that the other’s need was that they needed help making a phone call, one group was told the other’s need was the apartment eviction scenario, and the third group was told the other’s need was the orphaned children scenario used in the first study. Throughout these experiments, hypothetical helping measures were taken by asking the participants to select which form of help they would be most likely to provide to the other from a list of seven helping options. These seven helping options ranged in costliness from relatively not costly (i.e., provide the other with an apartment guide) to very costly (i.e., allow the other to live with you free of rent if you have the space available). A hierarchical regression analysis using hypothetical helping as a criterion variable examined the interactions between empathic concern, personal distress, sadness, and oneness. In support of the oneness hypothesis, results of this analysis showed that helping was predicted by empathic concern before oneness was entered into the analysis, but once oneness was entered, empathic concern no longer predicted helping but oneness did. These findings did not support the EAH.

Believing that Cialdini et al.'s (1997) use of hypothetical situations evoked little actual empathic concern in their participants, Batson, Sager, Garst, Kang, Rubchinsky, & Dawson (1997) conducted two experiments that explored the question of self-other merging, empathic concern, and helping behavior using a non-hypothetical method of evoking empathic concern. In both experiments participants were told that they were helping to pilot test one of several potential new radio programs for the university radio station by listening and reacting to it. In this study, a 2x2 design was used to manipulate empathic concern (high/low) and group membership (same group/different group). Participants were randomly split into two equal groups with one being asked to remain as objective as possible (low empathic concern condition) and the other being asked to try to imagine how the person speaking is feeling (high empathic concern condition) while they listened to the recording. The recording began with a male announcer briefly describing the upcoming reader. Half of the participants were told that the young woman they were about to listen to was a student of the University of Kansas (the school that all participants belonged to; in group), the other half of participants were told that she was a student of Kansas State University (arch rival school; out group). Following that introduction, the participants heard an ostensible other student describe a recent tragedy in which her parents died leaving her to provide for her two younger siblings. Following the recording, participants were asked to complete several questionnaires that were designed to measure levels of empathic concern and perception of group membership/inclusion. Following these measures, participants were given the opportunity to volunteer to help the ostensible other for zero hours, 2-4 hours, 5-7 hours, or 8-10

hours (measure of helping behavior). Both experiments found evidence contrary to the suggestion that empathic concern is constrained by shared group membership in that participants in the high empathic concern conditions (Experiment 1, $M = .95$; Experiment 2, $M = .67$) helped more than did those in the low empathic concern conditions (Experiment 1, $M = .50$; Experiment 2, $M = .20$). These results support the EAH's suggestion that empathic concern, not group membership or closeness, predicts helping behavior.

A third study by Maner, Luce, Neuberg, Cialdini, Brown, & Sagarine (2002) attempted to address the concerns raised by Batson et al. (1997) through an experiment using images of EEGs to manipulate participants into feeling group membership with another who is perceived to have similar or dissimilar brainwave patterns to themselves. As in the Batson et al. (1997) study, participants were told that they would be helping to pilot test a randomly selected radio program. The participants were told that the study was interested in examining how persons with similar or dissimilar ways of thinking processed radio communications and that a person's brainwaves were like "fingerprints" of one's personality and could be used to analyze the fundamental similarities and differences between people. Participants were fitted with an EEG headband and told to let their minds wander as they observed a screen that displayed random images. After several minutes, the researcher brought in a pre-prepared EEG image and explain to the participant that the image was just created based on their recent EEG readings. They were also told that of the three potential recorded persons they could be assigned to they had highly similar brainwaves to one, highly dissimilar brainwaves to another, and

moderately similar brainwaves to a third. Participants were then randomly assigned to a similarity condition and were told that the broadcast they would be listening to was by the person with similar, dissimilar, or moderately similar brainwaves to their own (similarity condition). Following the similarity manipulation, the participants were divided evenly into high empathic concern (imagine other perspective instructions) and low empathic concern (objective perspective instructions) groups and were asked to listen to a recording by an ostensible student who had recently lost her parents to a car accident and was now attempting to support her younger siblings while finishing her degree. Following the communication, participants were offered a similar helping opportunity to the one used in the Batson et al. (1997) study.

Maner et al. (2002) used weighted contrasts to test the interactions between the oneness and perspective-taking manipulations. These contrasts achieved significant results, indicating that the observed pattern of helping did not differ significantly from the pattern that the oneness hypothesis predicted. The researchers also tested a possible main effect of perspective taking on helping and found nonsignificant results. These results did not support the EAH and instead indicate that there was no difference in the reported willingness to help the other in need regardless of perspective taking instructions. While these results do not support the EAH, there is a flaw in this design as manipulating perceived similarity between the participant and the ostensible other may have created high (or low) empathic concern for that other. This may have conflicted with the subsequent perspective taking (empathic concern) manipulation effect on helping.

Addressing the SEH

One potential criticism of the literature is a shortage of studies testing the EAH against all egoistic explanations simultaneously. As stated by Cialdini et al. (1997): “After all, the fundamental dispute the empathy-altruism model attempts to resolve is not between altruism, considered as a concept, and various egoistic concepts, considered independently; rather, it is between altruism as a whole and egoism as a whole, which has not been tested.” (pp. 483-484).

This criticism was the main purpose for the present study. To address the egoistic alternatives listed above, the following considerations were made (see Table 2 for a complete listing of predictions for the present study by hypothesis).

Helping opportunity. This study intentionally denied the participants an opportunity to help the other in need. Instead, after being presented with another in need, participants were given an opportunity to receive feedback about whether the need was reduced. According to the EAH, participants induced to experience relatively high empathic concern should desire additional information about whether the need was reduced compared to participants induced to experience relatively low empathic concern. The reason for denying participants an opportunity to help was that four of the eight egoistic alternatives could only account for the EAH when a helping opportunity exists. More specifically: the ESR, ESP-Soc, ESP-Self, and NSR hypotheses cannot achieve their ultimate goal without a helping opportunity (or in the case of the NSR hypothesis, one cannot achieve their ultimate goal without a way of increasing one’s mood). By eliminating a helping opportunity (or other methods of mood enhancement), these

hypotheses predict no difference in desire to receive additional information about the other's need regardless of the degree of empathic concern experienced.

No-information vs. imagine-other (dissimilar). To address the oneness hypothesis, a manipulation of the participants' perceived dissimilarity to the other in need was introduced. To accomplish this, approximately one third of the participants induced to feel high empathic concern were provided information that led them to believe the person in need was dissimilar to them. The other two thirds of participants induced to feel high empathic concern were not given this information. The EAH predicts that those induced to feel high empathic concern should desire feedback about the person in need regardless of the person's dissimilarity. Unlike the EAH, the oneness hypothesis predicts that participants would desire feedback about the person in need only when that person is not perceived as dissimilar.

Psychological escape (task engagement). In order to address the AARH, a manipulation of psychological escape was used. After reading about the person in need, participants were led to believe that they would complete a task that was either highly engaging and would make it difficult for their mind to 'wander' (easy escape) or extremely boring and would make it easy for their mind to think of things unrelated to the task (difficult escape). According to the AARH, desire for feedback about the person in need should be high when psychological escape is difficult and desire for additional feedback should be low when psychological escape is easy. According to the EAH, those induced to feel high empathic concern should desire additional information about the person in need regardless of the ease of psychological escape.

Likelihood of need reduction (task difficulty). To test the EJ hypothesis, the likelihood that the person in need would have his or her need reduced was manipulated. According to the EJ hypothesis, one needs to learn about the reduction of the other's need to experience vicarious empathic joy. If the likelihood of that person's need being reduced is low, then the EJ hypothesis predicts that one would not seek out information pertaining to the outcome of the person's need. To manipulate this, the participants were told that the person in need would complete a task on which successful performance would result in a positive outcome. Participants were told that the task was either difficult to complete (low likelihood of need reduction) or easy to complete (high likelihood of need reduction). The EJ hypothesis predicts high desire for additional information about the person in need only when the need is likely to be reduced. In contrast, the EAH predicts high desire for additional feedback among those induced to feel high empathic concern regardless of how likely the need is to be reduced.

Objective vs. imagine-other (empathic concern manipulation). As was successfully used in previous studies (Toi & Batson, 1982; Batson et al., 1988; Batson et al., 1991; Batson & Weeks, 1996; Cialdini et al., 1987; Dovidio et al., 1990; Fultz et al., 1986; Schaller & Cialdini, 1988) this study used imagine-other perspective and objective perspective conditions to induce relatively high empathic concern (imagine-other) or low empathic concern (objective) in participants. In this study, instructions similar to those used by Toi & Batson (1982) were employed. Because the EAH states that empathic concern is a prerequisite to altruism, the EAH predicts that participants will be more likely to want feedback about whether the other in need had their situation

improved in the high empathic concern (imagine-other) condition relative to the low empathic concern (objective) condition. This is regardless of how easy it is to psychologically escape, how likely the need is to be reduced, or how dissimilar the participant perceives the other in need.

Dependent variable. The participants were given the option to receive feedback about how the person in need performed on a task on which successful completion resulted in a positive outcome for the person. This dependent variable was designed to test whether the participants desired to learn if the other's need had been reduced (see Table 2).

Goals and Hypotheses of the Study

The study sought to test the EAH by examining the EAH alongside the eight egoistic alternatives. By including a means for distinguishing the EAH from all the egoistic explanations in one study, it was possible to evaluate whether the EAH or the SEH could best explain the relation between empathic concern and desire for additional information about a person in need. As shown in Table 2, the EAH predicts that participants in the imagine-other (high empathic concern) condition would be more likely to request feedback about the other than would participants in the objective (low empathic concern) condition. This is regardless of how easy it was to psychologically escape, how likely the other's need was to be reduced, or how dissimilar the other was perceived. In contrast the SEH predicts that participants in the imagine-other condition would be more likely to request feedback about the other than would participants in the

objective condition, except in the condition in which it was easy to psychologically escape, the other's need was unlikely to be reduced, and dissimilarity was high. In order to avoid potential additional dilution of statistical strength, all predictions were considered to be either low or high as opposed to low, low-moderate, moderate, etc. The assumption made for this study was that a condition was predicted to be low in cases where no explanation would assume desire for feedback and it was considered high if any one of the explanations assumed desire for feedback.

Method

Participants

One hundred forty-eight undergraduate students enrolled in general psychology at the University of Wisconsin Oshkosh were participants in the study. Participants were run one at a time with each study session lasting approximately one hour. Participants were compensated with two credits toward their general psychology research requirement. Participants were entered into a raffle for a \$50.00 gift certificate to the store of their choosing. This raffle was drawn once data collection for the study was complete. Ten participants were excluded from analyses due to suspicion regarding the veracity of the cover story. Analyses were conducted using responses of the remaining 138 participants (54 women, 43 men, 40 unknown). Due to inconsistency in recording participant sex, sex was not recorded for 40 participants.

Procedure

Introduction. The present study used a hand-written communication from an ostensible second participant to elicit empathic concern in the actual participants. Several studies examining the EAH have successfully used this or a similar form of manipulation to create an empathic response (Batson & Weeks, 1996; Batson et al., 1988; Coke et al, 1978; Fultz et al, 1986). The study was conducted by one male graduate student and one female undergraduate student. The participants were greeted by the researcher and led into a lab room where the participants were instructed to sit at a desk. The researcher

asked the participants to carefully read the Informed Consent (see Appendix A) and Introduction (see Appendix B) sheets located on the desk once the researcher had left the room. The introduction explained that the goal of the study was to look at factors that influence task performance.

Role assignment. Once the participants had read and completed the Informed Consent and then read the Introduction, the researcher reentered the room and collected both the Introduction and the Informed Consent. At this time, the researcher answered any questions or concerns the participants had. Once all questions had been answered, the researcher gave the participants a folder containing the Role Assignment Sheet (see Appendix C). The researcher explained that there was another (ostensible) gender-matched person participating in the study concurrently and that each participant had been assigned the role of either sender or receiver. The researcher also explained that there would always be one sender and one receiver. For the purposes of this study, the ostensible participant was always assigned the role of sender and the actual participants were always assigned the role of receiver. The researcher then left the room to allow the participants to read the Role Assignment Sheet. In order to increase the participants' belief that there was in fact another participant in the study, the researcher entered a nearby separate room and pretended to talk to the ostensible participant throughout different parts of the study.

Manipulation of empathic concern. Once the participants had finished reading the Role Assignment Sheet, the researcher reentered the room holding a folder containing the Communication Instructions for RECIEVER (Appendices D and E), the hand-

written Communication (Appendix F), the Communication Reactions Questionnaire 1 (Appendix G), and the Communications Reactions Questionnaire 2 (Appendix H). There were two versions of the Communication Instructions; however, participants only received one of the versions based on the condition to which they were assigned (objective v. imagine other). One version contained instructions to read the Communication from the sender as objectively as possible (objective; low empathic concern condition). The other version contained instructions to read the Communication from the sender and to try to imagine what the sender is thinking and feeling while reading (imagine-other; high empathic concern condition). The researcher explained that the ostensible participant (sender) had arrived a couple minutes early to the study and had already completed his or her communication to the receiver. The sender's communication described his or her current situation in life and was designed to elicit empathic concern in the actual participant. The researcher instructed participants to carefully read the communication instructions and the communication and to then complete the Reactions Questionnaires. On the Communication Reactions Questionnaire 1 participants were asked to rate on a 7-point scale to what extent they were currently experiencing 16 different emotions, six of which were indicative of empathic concern (*sympathetic, softhearted, compassionate, tender, moved, and warm*). The Communications Reactions Questionnaire 2 included two items with 7-point scales to evaluate whether the perspective-taking manipulation was successful ("While reading the sender's communication, to what extent did you remain objective and detached?" and "While reading the sender's communication, to what extent did you imagine the thoughts and

feelings of the sender?”). The researcher answered any questions the participant had and left the room.

Manipulation of perceived dissimilarity. Once the participant had indicated that they had completed the questionnaires, the researcher reentered the room with a folder containing the Perceptions of SENDER Questionnaire (Appendix J). If the participants were in the Imagine Other – Dissimilar condition, the folder also contained a copy of the Information about Sender form (see Appendix I) filled out by the researcher. The Information about Sender form explained that this information about the sender was being provided in order to give the participants additional insight into who the sender is. The Information about Sender form was filled out with the answers that were least commonly selected by members of the sample during the prescreen portion of registering for the university’s participant pool. The questions on the Information About Sender form were designed to be innocuous (e.g., favorite color) as opposed to rousing (e.g., political affiliation) to create dissimilarities without creating a rift between the participants and the hypothetical participant. The Communication Instructions for RECIEVER (perspective taking instructions from the previous section) as well as the Information about Sender forms (if the participants were in the imagine other – dissimilar condition) were placed into folders prior to the start of the study by another researcher. In this way, the researcher remained blind to the participants’ conditions by selecting a random, pre-filled folder group from a block of pre-filled folders. The Perceptions of Sender Questionnaire contained two 7-point items designed to measure perceived oneness with the sender (“To what extent would you use the term “we” to describe your relationship with the sender?”

and an item asking participants to circle one of seven pictures of overlapping circles that best indicated how connected they were with the sender). After answering any questions from the participants, the researcher left the room to allow the participant to fill out the questionnaire in private.

Psychological escape manipulation. When the participants had finished completing the questionnaire, the researcher reentered the room and collected them. The researcher then gave the participants one of four versions of the Task Assignments sheet (based on which condition the participant were in; Appendices K-N) and the Before Task Reactions Questionnaire – Receiver form (task assignment manipulation check; Appendix O). The researcher explained that the Task Assignments sheet contained the task assignments for both the sender and the receiver. The tasks were listed as a combination of two task types. The task types differed by engagement level (Engaging or Boring) and difficulty (Easy or Hard). The researcher then explained the task types and reinforced the information from the introduction. Specifically, the researcher reminded the participant that successfully completing the assigned task would earn the participant a chance at a \$50.00 gift certificate. The researcher also emphasized that the ‘sender’ and ‘receiver’ were not competing for the same gift card; the ‘sender’ and ‘receiver’ would be entered into separate raffles. The researcher also reiterated that the easy task had approximately a 90% success rate (90% of people perform well enough to receive a raffle ticket) and the difficult task had approximately a 10% success rate (10% of people perform well enough to receive a raffle ticket). At this point, the researcher asked the participant to decide which store he or she would like the \$50.00 gift certificate to be for

if he or she were to win the raffle. This question not only served the practical purpose of allowing the researcher to make a note of which gift card to get for the participant if he or she won the raffle, but also forced the participant to refocus on the potential prize for successfully completing the task for both themselves and the other in need.

For the purposes of this study, the actual participants (receivers) were always assigned the easy task to avoid the induction of negative affect that might interfere with empathic concern. In addition, for this study, the sender was always assigned to the boring task to present the idea that the ‘sender’ would not be able to escape psychologically from his or her situation by way of an entertaining task and that the only way for his or her situation to improve would be to succeed on the task and acquire the raffle ticket . As a result of these two constants, the Task Assignments sheet had one of four possible task combinations: Receiver-Easy/Boring task, Sender-Easy/Boring task; Receiver-Easy/Engaging task, Sender-Easy/Boring task; Receiver-Easy/Boring task, Sender-Difficult/Boring task; Receiver-Easy/Engaging task, Sender-Difficult/Boring task (see Table 2). After the participants read the Task Assignments sheet, they were asked to complete the Before Task Reactions Questionnaire (Appendix O). This questionnaire was a manipulation check for the likelihood of need improvement (“How difficult do you think it will be for the SENDER to meet the qualifying score to win the raffle ticket on his or her task?”) as well as a manipulation check for perceived psychological escape (participants were asked to what extent do you expect to think about the SENDER “while you are completing your task?”, “after you have finished completing your task?”, and “after the study is over?”).

Measure of participant's desire to learn the person in need's outcome. Once the Before Task Reactions Questionnaire was completed, the participants were given the For the RECEIVER Only form (Appendix P) which explained that the receiver had the option to receive a final communication from the sender after the sender had completed his or her task and learned the results of the task. This For the RECEIVER Only form was the study's dependent variable and was designed to measure whether the participant desired feedback about whether the sender's situation had improved because of the outcome of the task. The researcher told participants that this was something that only the receiver had the opportunity to fill out. As the "receiver" the participants had the choice of whether they would like to receive a final communication from the other participant once he or she had completed the task assigned to them. After giving the participants the For the RECEIVER Only form, the researcher answered any questions the participants had and left the room.

When the participants had finished, the researcher reentered the room and collected the For the RECEIVER Only form. The researcher then carefully debriefed the participants using a semi-structured script (see Appendix Q). The participants were given a Debriefing Information sheet (see Appendix R) that detailed the actual purpose of the study and explained all deceptive aspects of the study and the reasons for the deception. The researcher then answered any remaining questions the participants had, thanked the participants again for their time, and walked the participants out of the lab.

Results

Manipulation Checks

Means and standard deviations of all manipulation check measures by experimental condition can be found in Table 3. Planned contrasts in ANOVA were used to evaluate the effectiveness of the four experimental manipulations. The experimental conditions comprising low and high values of the relevant experimental manipulation were used to predict the corresponding manipulation check measure.

Effectiveness of the perspective taking manipulation. To determine whether participants adopted the perspective to which they were assigned participants were asked to rate the extent to which they remained objective while reading the message from the sender and to what extent they imagined the thoughts and feelings of the sender while reading the message. Participants in the imagine-other conditions reported imagining the senders' thoughts and feelings to a greater extent ($M = 6.31$) than did participants in the objective conditions ($M = 4.37$), $F(1,127) = 64.34$, $p < .001$, $\eta^2 = .06$. Participants in the imagine-other conditions also reported remaining less objective ($M = 3.47$) than did participants in the objective conditions ($M = 4.89$), $F(1,127) = 22.16$, $p < .001$, $\eta^2 = .04$. These results suggest the perspective taking manipulation was successful.

Effectiveness of the similarity manipulation. To determine whether the dissimilarity manipulation was successful, a measure of perceived oneness was computed by averaging to participants' responses to the overlapping circles item and the item asking them the extent to which they would use the term "we" to describe their

relationship with the sender (Cronbach's $\alpha = .80$). Participants in the dissimilar conditions reported perceiving less oneness with the sender ($M = 4.37$) than did participants in the no-information conditions ($M = 6.31$), $F(1,127) = 5.56, p < .02, \eta^2 = .03$. These results suggest the dissimilarity manipulation was successful.

Effectiveness of the likelihood of need improvement manipulation. To determine whether the chance of success manipulation (and thus the likelihood of need improvement) was successful, participants reported how difficult it would be for the sender to successfully complete the task. Participants in the difficult sender task conditions reported that it would be more difficult for the sender to successfully complete the task ($M = 4.65$) than did participants in the easy sender task conditions ($M = 2.75$), $F(1,125) = 40.32, p < .001, \eta^2 = .04$. These results suggest the chance of success manipulation was successful.

Effectiveness of the psychological escape manipulation. To determine whether the psychological escape manipulation was successful, a measure of the extent to which participants believed they would continue to think about the sender was computed by averaging responses to the three items asking them to what extent they would think about the sender while completing their own task, after completing their own task, and after completing the study (Cronbach's $\alpha = .80$). Participants in the boring task conditions reported that they would think about the sender ($M = 3.31$) to a similar degree as did participants in the engaging task conditions ($M = 3.28$), $F(1,125) = .02, p = .89, \eta^2 = .00$. These results suggest the psychological escape manipulation was unsuccessful.

Empathic Concern

A measure of empathic concern was computed by averaging participants' responses to the six empathic concern adjective items (Cronbach's $\alpha = .80$). Means and standard deviations of empathic concern by experimental condition can be found in Table 4. A planned contrast using ANOVA was used to evaluate whether participants in the imagine-other perspective conditions reported feeling more empathic concern than did those in the objective perspective conditions. As expected, given the successful manipulation of perspective taking, participants in the imagine-other conditions reported feeling more empathic concern for the sender ($M = 4.45$) than did participants in the objective conditions ($M = 3.81$), $F(1,127) = 8.92$, $p < .004$, $\eta^2 = .04$. These results suggest the perspective taking manipulation produced meaningfully low and high empathic concern comparison groups.

Request for Feedback

To evaluate whether the EAH or the SEH could better account for the pattern of participant requests for feedback by experimental condition, two phi coefficient effect sizes were computed. For the first effect size the EAH empirical predictions listed in Table 2 were used to create a EAH contrast variable (0 = low request for feedback predicted, 1 = high request for feedback predicted). This EAH contrast variable was then used to predict actual request for feedback (0 = no feedback requested, 1 = feedback requested). For the second effect size the same analytic procedure was used except that the SEH empirical predictions listed in Table 2 were used to create an SEH contrast

predictor variable instead. Both resulting effect sizes were similar and small in value, $r(137) = .14, p = .11$ for the EAH contrast, $r(137) = .12, p = .17$, respectively. These results suggested that neither theoretical explanation could better account for the pattern of feedback request results.

One limitation of the previous analysis was that there was too much overlap in predictions in the EAH and SEH explanations across the ten conditions to discriminate between the two explanations. To address this possibility, a second set of phi coefficients were computed in which only the three experimental conditions that offered the most discrimination in prediction between the competing explanations were used to create the EAH and SEH contrast predictor variables. These experimental conditions were the (a) objective-no-information/receiver-assigned-engaging-task/sender-assigned-difficult-task condition, the (b) imagine-other-no-information/receiver-assigned-boring-task/sender-assigned-easy-task, and the (c) imagine-other-dissimilar/receiver-assigned-engaging-task/sender-assigned-difficult-task condition. These three conditions were considered to be the most critical because they included the condition with the most divergent prediction between the EAH and the SHE (condition 10 on Table 2), a baseline condition predicting low across all explanations (condition 4 on Table 2), and a baseline condition predicting high across all explanations (condition 5 on Table 2). In this instance, the effect size computed using the EAH contrast predictor variable was appreciably larger in value, $r(45) = .22, p = .16$, than was the effect size computed using the SEH contrast predictor variable, $r(45) = .08, p = .59$. These results, although highly speculative,

suggest that the EAH could better account for the pattern of feedback request results among the three critical test conditions than could the SEH.

Discussion

The present study sought to contrast the empathy-altruism hypothesis (EAH) and the simultaneous-egoism hypothesis (SEH). The EAH states that empathic concern for a person in need creates an altruistic motivation to reduce that person's need as an end. Alternatively, the SEH states that empathic concern creates one or more egoistic motivations oriented toward benefitting the self as an end such as avoiding punishments, gaining rewards, avoiding unpleasant arousal produced by observing need in another, or obtaining benefits for aspects of the self or a combination thereof. These opposing hypotheses were compared by measuring the participants' desire to learn whether or not the person in need received a need-reducing outcome across several experimental conditions that involved manipulation of empathic concern for the person in need, the ease of psychological escape from the person in need, the likelihood of the person in need having his or her need reduced, and the perceived similarity of the participant to the person in need.

The results of this experiment suggest a successful manipulation of perspective taking. Moreover participants in the imagine-other conditions reported higher levels of empathic concern than did those in the objective conditions, suggesting that high and low empathic concern conditions were successfully created. The manipulation of perceived dissimilarity also appeared to be successful in that those in the imagine-other conditions who were given dissimilarity information indicated perceiving lower oneness with the person in need than those in the imagine-other conditions who were given no

information. The perceived likelihood of need improvement appeared successful as well in that those in the sender-difficult conditions reported that they believed the sender would have a lower chance of receiving a raffle ticket than those in the sender-easy conditions. Unfortunately, the psychological escape manipulation seems to have been unsuccessful as participants in the receiver-boring task conditions reported they anticipated thinking about the person in need to a similar degree as participants in the receiver-engaging task conditions.

Across the ten experimental conditions, the pattern of responses of participants requesting feedback about the need of the person was ambiguous in that it did not clearly favor either the EAH or SEH. However, when the pattern of responses was examined in the three experimental conditions that offered the clearest potential empirical discrimination between the two competing hypotheses, the EAH seemed to better account for the pattern of feedback than did the SEH. Although based on a more decisive comparison of conditions, this finding should be considered highly speculative given it is based on exclusion of data from the majority of experimental conditions.

Limitations

One of the major limitations of this study was the unclear pattern of feedback results in the objective condition. Even when focusing on the more discriminating experimental conditions, although the effect for the EAH was clearly larger than the effect for the SEH, neither effect was statistically significant. Perhaps if not for another limitation of this study, the low sample size per condition ($M = 13.7$), the EAH effect

may have been more accurate and perhaps statistically significant. In an attempt to address every aspect of the SEH when comparing it to the EAH, the present study may have overreached in the number of conditions that were implemented given the participant resources that were available.

Another limitation of this study was its failure to manipulate psychological escape adequately. It is possible that this shortcoming resulted from participants not understanding the manipulation either through the written instructions or through the oral reinforcement from the researcher. It could also be that the psychological escape manipulation informed the participants that they would have a task that made it either difficult or easy to think of other things during their task, but were given no information about the ability to escape psychologically after the task or after the study. It is possible that participants expected to experience similar opportunities for psychological escape in either condition after the task was completed and as a result, the responses in both the low and high psychological escape groups were not substantively different from one another. It may also be that most people find psychological escape from those in need relatively easy when not in the presence of those individuals, particularly when they are not strongly positively valued. If so, the psychological escape explanation for the effect of empathic concern on helping may be overstated to begin with.

Future Directions and Conclusions

Future attempts to conduct this experiment would benefit greatly from a focus on fewer test conditions, perhaps using only those that are critical to the separation of the

EAH and the SEH. Additionally, it might be wise to adjust the current psychological escape manipulation in such a way that the participants would respond more fully. This could be possible by providing more concrete details about the anticipated task that make it difficult (or easy) to consider other things while completing the task. Another possibility would be to have participants engage in one round of the boring and engaging task prior to receiving communication from the sender so that they understand the implications of being assigned the engaging or boring task. Another theoretical question that may prove beneficial to consider is whether the eight egoistic motivations proposed to account for the empathy-altruism hypothesis are actually viable motivations in their own right. Although findings in low empathic concern conditions in previous research offer evidence of a number of them, the pattern of requests for feedback in the objective (low empathic concern) conditions in this study produced inconsistent evidence of empathic joy and aversive-arousal reduction motives.

In light of the current study's shortcomings, it is important to discuss the idea that it might not be possible to examine all of the egoistic alternatives simultaneously. The results of the current study could be interpreted as evidence that examining the egoistic alternatives simultaneously may require a procedure that is too complex for participants to follow. However, given the noticeable strengthening of the dependent variable when the data were examined using only the three most critical experimental conditions, fine tuning the psychological escape manipulation and relying on a more concise set of experimental conditions may yield a paradigm that would provide a compelling test of the EAH and SEH.

Table 1

Ultimate goals for empathy-induced egoistic and altruistic helping (Batson, 2011, p. 89)

Nature of the motive to help	Outcomes of empathy-induced helping	
	Remove the other's need	Receive self-benefits
Altruistic	Ultimate goal	Unintended consequence
Egoistic	Instrumental goal	Ultimate goal

Table 2

Request for feedback about need by experimental condition according to the Empathy-Altruism Hypothesis and alternative egoistic explanations

Experimental Condition	Theoretical Explanation				Empirical Prediction (EAH/SEH)
	Aversive-Arousal Reduction	Empathic Joy	Oneness	Empathy-Altruism	
Objective					
RB/SE	High	High	Low	Low	High
RB/SD	High	Low	Low	Low	High
RE/SE	Low	High	Low	Low	High
RE/SD	Low	Low	Low	Low	Low
Imagine Other					
RB/SE	High	High	High	High	High
RB/SD	High	Low	High	High	High
RE/SE	Low	High	High	High	High
RE/SD	Low	Low	High	High	High
Imagine Other/ Dissimilar					
RB/SD	High	Low	Low	High	High
RE/SD	Low	Low	Low	High	High/Low

Note. RB = receiver assigned boring task (low psychological escape). RE = receiver assigned engaging task (high psychological escape). SE = sender assigned easy task (high likelihood of need improvement). SD = sender assigned difficult task (low likelihood of need improvement).

Table 3

Means and standard deviations for manipulation checks by experimental condition

Experimental Condition (N)	Measure				
	Remain Objective	Imagine Perspective	Sender's Task Difficulty	Thinking About Sender	Perceived Oneness
<i>Objective</i>					
RB/SE (14)	5.07 (1.14)	3.50 (1.70)	2.75 (1.71)	2.89 (1.17)	2.96 (1.26)
RB/SD (15)	5.20 (1.32)	4.73 (1.91)	5.13 (1.25)	3.38 (1.28)	3.23 (1.25)
RE/SE (13)	4.46 (1.71)	5.31 (1.70)	3.38 (1.89)	3.03 (1.49)	2.85 (1.16)
RE/SD (14)	4.79 (1.53)	4.00 (2.08)	5.00 (1.30)	3.21 (1.52)	3.64 (1.51)
<i>Imagine Other</i>					
RB/SE (15)	3.33 (2.19)	6.47 (0.83)	2.33 (1.50)	3.58 (0.96)	3.63 (1.34)
RB/SD (10)	3.70 (1.89)	5.70 (1.34)	4.90 (1.73)	3.73 (1.23)	3.40 (0.99)
RE/SE (17)	3.59 (1.54)	6.53 (0.72)	2.65 (1.06)	3.39 (1.47)	3.24 (1.37)
RE/SD (14)	4.00 (1.92)	6.21 (0.70)	5.50 (1.65)	3.50 (1.04)	3.21 (1.16)
<i>Imagine Other/ Dissimilar</i>					
RB/SD (12)	3.00 (2.09)	6.58 (0.67)	3.92 (2.15)	2.94 (1.57)	2.33 (1.47)
RE/SD (13)	3.15 (1.72)	6.15 (0.69)	3.31 (2.25)	3.23 (1.10)	2.04 (0.99)

Note. Standard deviations in parentheses. RB = receiver assigned boring task (low psychological escape). RE = receiver assigned engaging task (high psychological escape). SE = sender assigned easy task (high likelihood of need improvement). SD = sender assigned difficult task (low likelihood of need improvement).

Table 4

Contrast coefficients used to evaluate manipulation checks and empathic concern

Experimental Condition	Measure				
	Remain Objective	Imagine Perspective and Empathic Concern	Sender's Task Difficulty	Thinking About Sender	Perceived Oneness
Objective					
RB/SE	3	-3	-3	1	-2
RB/SD	3	-3	2	1	-2
RE/SE	3	-3	-3	-1	-2
RE/SD	3	-3	2	-1	-2
Imagine Other					
RB/SE	-2	2	-3	1	3
RB/SD	-2	2	2	1	3
RE/SE	-2	2	-3	-1	3
RE/SD	-2	2	2	-1	3
Imagine Other/ Dissimilar					
RB/SD	-2	2	2	1	-2
RE/SD	-2	2	2	-1	-2

Note. RB = receiver assigned boring task (low psychological escape). RE = receiver assigned engaging task (high psychological escape). SE = sender assigned easy task (high likelihood of need improvement). SD = sender assigned difficult task (low likelihood of need improvement).

Table 5

Means and standard deviations for empathic concern and proportion requesting feedback by experimental condition

Experimental Condition (N)	Measure		Feedback ES Coding	
	Empathic Concern	Feedback Requested	EAH	SEH
Objective				
RB/SE (14)	3.83 (1.37)	.21	1	1
RB/SD (15)	3.82 (1.28)	.53	1	1
RE/SE (13)	3.96 (0.90)	.46	1	1
RE/SD (14)	3.65 (1.73)	.29	-4	-9
Imagine Other				
RB/SE (15)	4.28 (1.34)	.47	1	1
RB/SD (10)	4.52 (0.47)	.60	1	1
RE/SE (17)	4.55 (1.33)	.53	1	1
RE/SD (14)	4.49 (1.09)	.71	1	1
Imagine Other/ Dissimilar				
RB/SD (12)	4.88 (1.04)	.67	1	1
RE/SD (13)	4.01 (0.92)	.46	-4	1

Note. Standard deviations in parentheses. RB = receiver assigned boring task. RE = receiver assigned engaging task. SE = sender assigned easy task. SD = sender assigned difficult task.

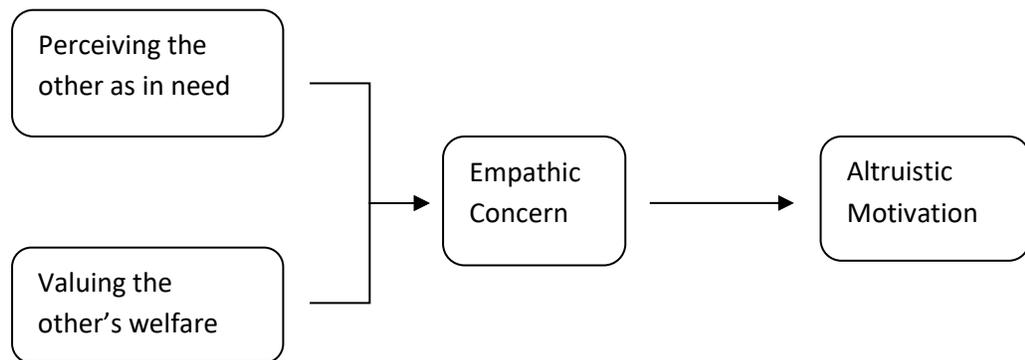


Figure 1. Model of Batson's (2011) Empathy-Altruism Hypothesis. Perceiving another as in need while valuing their welfare produces empathic concern.

APPENDIX A
Informed Consent

Task Performance and Communications Study: Informed Consent
University of Wisconsin Oshkosh

The Department of Psychology supports the practice of protecting human participants in research. The following information is provided so that you can decide whether you wish to participate in the present study. Your participation is solicited but is strictly voluntary. We assure you that your name and responses will remain confidential.

If you decide to participate in this study, you will be asked to read or write a communication and you will be asked to complete a task. Your reactions to the study will be assessed by questionnaires throughout the study.

If you agree to participate, you will be free to withdraw at any time and will still receive credit for the amount of time spent in the study. If you decide not to participate in this study, please let the researcher know and he or she will excuse you from the study. You do not need to tell the researcher your reasons for choosing not to participate. If you do decide to withdraw from the study, any information collected from you up to that point will then be destroyed.

All results will be recorded confidentially. We will not release information about you in any way or form that could identify you.

If you have any questions, please ask us or contact:

David A. Lishner, Ph.D.
Department of Psychology
University of Wisconsin Oshkosh
Oshkosh, WI 54901
lishnerd@uwosh.edu
920-915-2014

If you have any complaints about your treatment as a participant in this study, please call or write:

Chair, Institutional Review Board for
Protection of Human Participants
c/o Grants Office
UW Oshkosh
920-424-1415

Although the chairperson may ask for your name, all complaints are kept in confidence.

Consent Statement: By signing the statement below, I am confirming that I am at least 18 years old and have received an explanation of the study. I agree to participate. I understand that my participation in this study is strictly voluntary, and that I may withdraw at any time.

Name

Date

APPENDIX B

Introduction

Introduction

In multiple areas of our life we must complete tasks. We must complete tasks in work settings, educational settings, and personal settings. How well we perform and react to a task depends on a variety of factors. Some factors include how easy or difficult the task is to perform, how mentally engaging or boring the task is to perform, and whether we communicate with others about the task. Understanding how these factors can influence performance and reactions to task may have important implications for how to best structure features of settings where tasks occur in everyday life. To this end, in this study we are interested in looking at how personalized communication, task difficulty, and task engagement affect task performance.

What Will Happen in This Study

Task Consequences. In order to explore the effects of these factors on task performance and task reactions you and another student will each complete a task. Because we want people to care about the tasks, there will be a real consequence for successfully completing the task. To successfully complete the task you must get a specific number of questions on the task correct. If you are able to make this “qualifying score,” then you will receive a raffle ticket good for a chance to win a \$50.00 gift certificate to the store of the winner’s choice. We have two raffles for this study, so in the event that both you and the other participant each earn a raffle ticket, each of you will be put into a different raffle. You will be given instructions about how to complete the task later in the study.

Task Difficulty. To examine the effect of task difficulty on task performance and reactions each participant will be randomly assigned to complete either an **EASY** or **DIFFICULT** task. If you are assigned to the **EASY** task, then you will need to obtain a relatively low qualifying score to receive the raffle ticket. If you are assigned to the **DIFFICULT** task, then you will need to obtain a relatively high qualifying score to receive the raffle ticket. Based on pilot testing, approximately 90% of people are able to obtain the qualifying score on the **EASY** task and approximately 10% of people are able to obtain the qualifying score on the **DIFFICULT** task. The level of task difficulty will be determined randomly for each participant in the study session. You each may receive the same difficulty level or you each may receive a different difficulty level.

Task Engagement. To examine the effect of task engagement on task performance and reactions, each participant also will be randomly assigned to complete either an **ENGAGING** or **BORING** task. People who perform the **ENGAGING** task report that it is mentally engaging—it is very interesting, enjoyable, and makes it hard to think about other things besides the task. People who perform the **BORING** task report that it is fairly boring—it is not very interesting or enjoyable and makes it easy to think about other things besides the task. The level of task engagement will be determined randomly for each participant in the study session. You each may receive a task with the same mental engagement level or you each may receive a task with a different mental engagement level.

Task Communication. To examine the effect of personalized communication on task performance and reactions, one participant will be randomly assigned the role of **SENDER** and one participant will be randomly assigned the role of **RECEIVER**. If you are assigned the **SENDER** role you will be asked to write a brief communication describing an important event that has recently happened in your life before completing your task. This communication will be given to the other participant, who will be assigned to the **RECEIVER** role. If you are assigned the **RECEIVER** role, you will be asked to read the communication sent by the **SENDER** before completing your task. By having both a **SENDER** and a **RECEIVER** in the same session we are able to examine the effect of having or not having personalized information about others in the task setting on task performance and reactions while controlling for factors such as time of day, day of week, weather, etc.

Task Performance and Reactions. Task performance will be determined by how many correct responses you make on the task. In addition, your reactions to the task will be assessed throughout the study. Your anticipatory reactions prior to completing the task as well as your reactions following task completion will both be assessed. Immediately after completing the task you will also be asked to write a brief description of your reactions to completing the task, which will help us get a better sense of any thoughts or feelings that resulted from your performance.

At this time, please open the door to let the researcher know that you are ready to continue.

APPENDIX C

Role Assignment Sheet – RECEIVER

Role Assignment Sheet - RECEIVER

You have been randomly assigned to the RECEIVER role.

RECEIVER INFORMATION

As RECIEVER, you will be asked to read a personal communication written by the SENDER. In writing the communication, the SENDER was instructed to write briefly write about a meaningful event that has happened recently in his or her life. Once you have read the communication you will be asked some questions regarding your reactions to the communication and your perceptions of the SENDER.

After answering the questions, both you and the SENDER will be notified of which tasks you each have been randomly assigned to complete. At this point both you and the SENDER will be given your assigned tasks and asked to complete them. Following the completion of the task, both you and the SENDER will be asked to write a brief summary of your reactions as a result of completing the task and your perceptions of the task outcomes you received.

At this time, please open the door to let the researcher know that you are ready to continue.

APPENDIX D

Communication Instructions for RECEIVER (a)

Communication Instructions for RECEIVER

Inside this folder is a communication written by the SENDER. He or she was asked to write about an important event that has happened in his or her life recently.

Reading Perspective

Below is a set of reading perspective instructions. Previous participants in this study have informed us that adopting the reading perspective helped them think informatively about the communication. For this, please read the following perspective instructions carefully.

While you are reading the SENDER's communication, try to imagine what the SENDER is thinking and feeling about the event described and how it has affected his or her life. (Try not to concern yourself with attending to all the information discussed in the communication Just try to imagine how the SENDER is thinking and feeling as you read the communication.)

Please read over the reading perspective instructions a second time. When you feel like you have a good sense of the reading perspective, please open the folder and read the communication from the sender. Once you have finished reading the communication, please complete the questionnaires provided by the research assistant in the appropriate order.

APPENDIX E

Communication Instructions for RECEIVER (b)

Communication Instructions for RECEIVER

Inside this folder is a communication written by the SENDER. He or she was asked to write about an important event that has happened in his or her life recently.

Reading Perspective

Below is a set of reading perspective instructions. Previous participants in this study have informed us that adopting the reading perspective helped them think informatively about the communication. For this, please read the following perspective instructions carefully.

While you are reading the SENDER's communication, try to remain as objective as possible about the event described and how it has affected his or her life. (Try not to concern yourself with imagining what the SENDER is thinking or feeling as a result of the event. Just try to remain objective and detached as you read the communication).

Please read over the reading perspective instructions a second time. When you feel like you have a good sense of the reading perspective, please open the folder and read the communication from the sender. Once you have finished reading the communication, please complete the questionnaires provided by the research assistant in the appropriate order.

APPENDIX F

Communication from SENDER

Communication From SENDER

Directions for SENDER: In the space below, please write a brief communication about an important event that has happened in your life recently.

[To be hand written—Female Version]

I'm supposed to write about something interesting that's happened to me lately. Well, I don't know if this will be interesting to anybody else, but one thing I can think of is that two days ago I broke up with my boyfriend. We've been going out since our Junior year in high school and have been really close, and it's been great being at Oshkosh together. I thought he felt the same, but things have changed. Now he wants to date other people. He says he still cares a lot about me, but he doesn't want to be tied down to just one person. I've been real down. It's all I think about. I believe it when my friends here at Oshkosh say I will feel better in time, but that really hasn't happened yet. They tell me to try and think about other positive things in my life. I don't know, maybe if I get lucky I'll get the easy task and do good enough to get a raffle ticket for the gift card. That would probably be a pretty positive thing. I definitely don't want the hard task. It doesn't seem like most people do very good on that one.

[To be hand written—Male Version]

I'm supposed to write about something interesting that's happened to me lately. Well, I don't know if this will be interesting to anybody else, but one thing I can think of is that two days ago I broke up with my girlfriend. We've been going out since our Junior year in high school and have been really close, and it's been great being at Oshkosh together. I thought she felt the same, but things have changed. Now she wants to date other people. She says she still cares a lot about me, but she doesn't want to be tied down to just one person. I've been real down. It's all I think about. I believe it when my friends here at Oshkosh say I will feel better in time, but that really hasn't happened yet. They tell me to try and think about other positive things in my life. I don't know, maybe if I get lucky I'll get the easy task and do good enough to get a raffle ticket for the gift card. That would probably be a pretty positive thing. I definitely don't want the hard task. It doesn't seem like most people do very good on that one.

APPENDIX G

Communication Reactions Questionnaire 1

Communication Reactions Questionnaire 1

Directions: Please indicate the extent to which you experienced each of the following feelings while reading the communication from the sender. Although you may not have experienced all of these feelings while reading this communication, please circle a response for each feeling.

	Not at all						Extremely
Happy	1	2	3	4	5	6	7
Sad	1	2	3	4	5	6	7
Compassionate	1	2	3	4	5	6	7
Angry	1	2	3	4	5	6	7
Sympathetic	1	2	3	4	5	6	7
Amused	1	2	3	4	5	6	7
Softhearted	1	2	3	4	5	6	7
Interested	1	2	3	4	5	6	7
Tender	1	2	3	4	5	6	7
Warm	1	2	3	4	5	6	7
Anxious	1	2	3	4	5	6	7
Moved	1	2	3	4	5	6	7
Guilty	1	2	3	4	5	6	7
Annoyed	1	2	3	4	5	6	7
Embarrassed	1	2	3	4	5	6	7
Entertained	1	2	3	4	5	6	7

APPENDIX H

Communications Reactions Questionnaire 2

Communication Reactions Questionnaire 2

Directions: Please answer each of the questions below in response to the SENDER's communication.

1. How interesting was the sender's communication?

Not at all Very interesting
 1 2 3 4 5 6 7

2. How clear was the sender's communication?

Not at all Very clear
 1 2 3 4 5 6 7

3. While reading the sender's communication, to what extent did you remain objective and detached?

Not at all Very Much
 1 2 3 4 5 6 7

4. While reading the communication, to what extent did you imagine the thoughts and feelings of the sender?

Not at all Very Much
 1 2 3 4 5 6 7

5. While reading the sender's communication, to what extent did you imagine yourself in his or her situation?

Not at all Very Much
 1 2 3 4 5 6 7

6. How positive or negative was the event described by the sender?

Extremely negative Neutral Extremely positive
 -3 -2 -1 0 1 2 3

APPENDIX I

Information About SENDER

Information About Sender

Sender ID# _____

Directions: Below are prescreen questions that participants answered while setting up their participant accounts. In the spaces next to each question, the research assistant has written the answers the SENDER gave for the question on his or her prescreen. This information has been given to you to help give you a better sense of what the SENDER is like as an individual.

- ___ 1. What is your favorite sport?
- A. Baseball
 - B. Soccer
 - C. Football
 - D. Hockey
 - E. Other (Please write your favorite sport here) _____
- ___ 2. What is your favorite movie genre?
- A. Horror
 - B. Comedy
 - C. Drama
 - D. Sci-Fi
 - E. Fantasy
 - F. Other (Please write your favorite movie genre here)

- ___ 3. What is your favorite music genre?
- A. Classical
 - B. Rock
 - C. Country
 - D. Rap
 - E. R&B
 - F. Other (Please write your favorite music genre here)

___ 4. What is your favorite color?

- A. Red
 - B. Blue
 - C. Green
 - D. Yellow
 - E. Orange
 - F. Purple
 - G. Other (Please write your favorite color here)
-

___ 5. What is your favorite type of pet?

- A. Dog
 - B. Cat
 - C. Fish
 - D. Lizard
 - E. Bird
 - F. Insect
 - G. Other (Please write your favorite type of pet here)
-

APPENDIX J

Perceptions of SENDER Questionnaire

APPENDIX K

Task Assignments – High Chance of Improvement/Low Psychological Escape

Task Assignments (Pair #3)

The tasks for each of the two participants were randomly assigned prior to the participant's arrival today. Depending on which role you have been assigned, your randomly assigned task is as follows:

SENDER: The SENDER will have the **EASY/BORING** task.

The task is **easy**. For this task you will need to obtain a relatively low qualifying score to receive the raffle ticket. Approximately 90% of people are able to obtain the qualifying score on this task.

The task is fairly **boring**. It is not very interesting or enjoyable and makes it easy to think about other things besides the task.

RECEIVER: The RECEIVER will have the **EASY/BORING** task.

The task is **easy**. For this task you will need to obtain a relatively low qualifying score to receive the raffle ticket. Approximately 90% of people are able to obtain the qualifying score on this task.

The task is fairly **boring**. It is not very interesting or enjoyable and makes it easy to think about other things besides the task.

APPENDIX L

Task Assignment – Low Chance of Improvement/Low Psychological Escape

Task Assignments (Pair #3)

The tasks for each of the two participants were randomly assigned prior to the participant's arrival today. Depending on which role you have been assigned, your randomly assigned task is as follows:

SENDER: The SENDER will have the **DIFFICULT/BORING** task.

The task is **difficult**. For this task you will need to obtain a relatively high qualifying score to receive the raffle ticket. Approximately 10% of people are able to obtain the qualifying score on this task.

The task is fairly **boring**. It is not very interesting or enjoyable and makes it easy to think about other things besides the task.

RECEIVER: The RECEIVER will have the **EASY/BORING** task.

The task is **easy**. For this task you will need to obtain a relatively low qualifying score to receive the raffle ticket. Approximately 90% of people are able to obtain the qualifying score on this task.

The task is fairly **boring**. It is not very interesting or enjoyable and makes it easy to think about other things besides the task.

APPENDIX M

Task Assignments – High Chance of Improvement/High Psychological Escape

Task Assignments (Pair #3)

The tasks for each of the two participants were randomly assigned prior to the participant's arrival today. Depending on which role you have been assigned, your randomly assigned task is as follows:

SENDER: The SENDER will have the **EASY/BORING** task.

The task is **easy**. For this task you will need to obtain a relatively low qualifying score to receive the raffle ticket. Approximately 90% of people are able to obtain the qualifying score on this task.

The task is fairly **boring**. It is not very interesting or enjoyable and makes it easy to think about other things besides the task.

RECEIVER: The RECEIVER will have the **EASY/ENGAGING** task.

The task is **easy**. For this task you will need to obtain a relatively low qualifying score to receive the raffle ticket. Approximately 90% of people are able to obtain the qualifying score on this task.

The task is **mentally engaging**. It is very interesting, enjoyable, and makes it hard to think about other things besides the task.

APPENDIX N

Task Assignments – Low Chance of Improvement/ High Psychological Escape

Task Assignments (Pair #3)

The tasks for each of the two participants were randomly assigned prior to the participant's arrival today. Depending on which role you have been assigned, your randomly assigned task is as follows:

SENDER: The SENDER will have the **DIFFICULT/BORING** task.

The task is **difficult**. For this task you will need to obtain a relatively high qualifying score to receive the raffle ticket. Approximately 10% of people are able to obtain the qualifying score on this task.

The task is fairly **boring**. It is not very interesting or enjoyable and makes it easy to think about other things besides the task.

RECEIVER: The RECEIVER will have the **EASY/ENGAGING** task.

The task is **easy**. For this task you will need to obtain a relatively low qualifying score to receive the raffle ticket. Approximately 90% of people are able to obtain the qualifying score on this task.

The task is **mentally engaging**. It is very interesting, enjoyable, and makes it hard to think about other things besides the task.

APPENDIX O

Before Task Reactions Questionnaire

Before Task Reactions Questionnaire—Receiver

Directions: Please answer each of the questions below.

1. How happy are with the type of task you have been assigned to complete?

Extremely							Not at all
							Happy
1	2	3	4	5	6		7

2. How difficult do you think it will be to meet the qualifying score to win the raffle ticket on your task?

Extremely							Not at all
							Difficult
1	2	3	4	5	6		7

3. How difficult do you think it will be for the SENDER to meet the qualifying score to win the raffle ticket on his or her task?

Extremely							Not at all
							Difficult
1	2	3	4	5	6		7

4. How mentally engaging do you expect your task will be to complete?

Extremely							Not at all
							Engaging
1	2	3	4	5	6		7

5. How difficult do you expect it will be to think about other things besides the task while you are completing the task?

Extremely							Not at all
							Engaging
1	2	3	4	5	6		7

APPENDIX P

Final Communication Option – Dependent Variable

For the RECEIVER Only

As the RECEIVER you have the option to read the SENDER's final brief comments about his or her reactions to completing the task. These reactions will be written by the SENDER once he or she is finished completing his or her task. The SENDER will not be given the opportunity to read your final comments about completing your own task as he or she is only able to send communications for the purposes of this study.

Please keep in mind that it is not necessary for you to read the SENDER's final brief comments for the study to be successful. However, to remain consistent with the assigned communication roles we give you the option to read the SENDER's final comments if you want to. If you choose to read the SENDER's final brief comments, then the research assistant will give them to you to read once you have finished your own final brief comments and right before your time in the study ends. If you choose not to read the SENDER's final brief comments, then your time in the study will end once you complete your own final brief comments.

Please indicate your choice by marking an X next to the appropriate statement below.

I WANT to read the SENDER's final communication. _____

I DO NOT WANT to read the SENDER's final communication. _____

APPENDIX Q
Debriefing Script

Debriefing Script

I. Assess Participant Reactions

Researcher: I would like to take a few minutes to get your reactions to the study up to this point in your own words. Would it be okay if I wrote down any comments you may have?

[Participants almost always answer “yes” to this question.]

Researcher: Great! So, what are your reactions to the study so far?

[Any comments made by participant are written down. This open-ended question is followed by more specific questions about different aspects of the study if the participant does not spontaneously discuss them. For example, the researcher should ask about the following:

What were your reactions to your assigned role as the RECEIVER? To the other participant being assigned the SENDER? What were your reactions to the SENDER’s communication? To the SENDER’s personal Preferences Questionnaire? What emotions, if any, did you feel while reading the communication? What were your perceptions of the SENDER after reading the communication and the preferences questionnaire? Do you think the SENDER having similar or different preferences than you affected your reactions to the communication? To the task you were each assigned?

Researcher: At any point during the study did you think there was something more to the study? Did you at any point think that maybe there was something more to the study than what I’ve told you so far? Now that I mention it, can you think of any aspect of the study that seems strange or unusual?

- If they begin to figure out the study: “Great! That’s right! As you are starting to figure out, there is more to the study than you were originally told. What I’d like to do now is have you read over some information that will explain in more depth what the study was about. I will leave you alone to read over this information. When you are finished reading it, just open the door a crack and I will answer any additional questions you might have about the study.”
- [If yes, and participant brings up an irrelevant deception in study...] That actually wasn’t going on in this study, but you are on the right track! As you are starting to figure out, there is more to the study than you were originally told. What I’d like to do now is have you read over some information that will explain in more depth what the study was about. I will leave you alone to read over this information. When you are finished reading it, just open the door a crack and I will answer any additional questions you might have about the study.”

- [If no, then...] That's good! Actually, there is more to the study than you were originally told. What I'd like to do now is have you read over some information that will explain in more depth what the study was about. I will leave you alone to read over this information. When you are finished reading it, just open the door a crack and I will answer any additional questions you might have about the study."

II. Dehoax [Give Debriefing Information to participant and leave him or her to read it over.]

III. Wrap Up

[Next, return and sit with participants.]

Researcher: Okay, now that you have read everything about the purpose of this study do you have any additional questions or concerns? As you can see there were some misleading aspects of this study. Do you understand the reasons for including those aspects and are you okay with that? [If they have any questions or comments, address them. If they seem upset in anyway, talk with them more about their concerns in a validating way until you feel that they feel okay about their performance. If after you try to make them feel better they still seem upset or uncomfortable, offer to let them contact Dr. Lishner.]

Researcher: Do you have any other questions or comments at this time? Can you think of any ways that we can improve the study?

Researcher: The last thing we ask is that you not discuss this study with anyone, at least until the end of the semester, so that other people have the opportunity to experience the study in a realistic manner. Would that be okay with you? [Make sure to get verbal agreement.]

Researcher: Well, thank you for participating in the study and thank you for telling me about your reactions. It is very helpful for us and we really appreciate it!

APPENDIX R
Debriefing Information

Communication and Task Performance Study: Debriefing Information

Thank you for participating in this study. The purpose of this form is to provide you more in-depth information about the study. The actual purpose of this study is not to examine how personalized communication, task difficulty, and task engagement affect task performance. Rather, the actual purpose of this study is to examine how emotional reactions to a person in need influences whether one wants to receive additional information about the person in need depending on whether the person receives a positive outcome.

To examine this issue we have participants read about a person in need (i.e., the SENDER). Several variables are then manipulated to create different experimental conditions. First, to create low and high emotional arousal for the person in need, participants are randomly assigned to try and remain objective or try to imagine what the person in need is thinking and feeling. Some participants who are asked to imagine the person in need's thoughts and feelings also are given information about his or her preferences (e.g., favorite sport, favorite color, etc.) designed to make the person in need seem dissimilar to the participants. Second, using random assignment, participants are told that the person in need has received either an easy task or a difficult task. Third, participants are randomly assigned to believe that they will complete either a mentally engaging task or a boring task. Finally, participants are given the opportunity to receive additional information about how the person in need performed on his or her task, which is the dependent variable in the experiment.

All participants were told that they were the RECEIVER and that the other participant in need was the SENDER. All participants were given the same hand-written communication. By keeping these pieces of the communication constant, we are able to see how perceived similarity with the SENDER and emotional reactions to the SENDER's situation combine with perceived task difficulty/engagement influence participants' desire to receive additional information about the RECEIVER.

As you may have guessed by now, there were a number of misleading things that you were told about this study. First, there is not a second student participating in the study at the same time as you. The sender is a fictitious participant added to create the impact of hearing about a person in need in a realistic way. Second, there is no task to complete for a chance at the raffle prize. However, the raffle itself is real and your name will be added to the raffle along with all other participants in the study. At the conclusion of the study a name will be drawn and the winner will be contacted via email to claim his or her \$50. The purpose for giving you this misleading information was not

to trick you. Rather, it was given to you to allow us to keep constant the person in need and the need situation that was described so that we could precisely determine whether or not the experimental conditions we created were solely responsible for men's and women's emotional reactions to encountering a person in need. If we told participants the full truth about the purpose of the study in the beginning and that the other participant is actually not real, then participants may experience the situation as fictional or as pretend. This could lead participants to react very differently from how they would react in real-life situations when encountering people in need. Also, in some circumstances, if participants know about the actual purpose of a study, then they may feel compelled to report their reactions in an untruthful manner. For these reasons, when psychologists examine certain psychological processes they may withhold some information about a study or provide participants with some information about the study that is misleading.

We realize that you may feel a bit uncomfortable about having been told misleading information, but we want to assure you that it only was done to ensure that your experience in this study was as realistic as possible. Furthermore, it is important to remember that there is no correct or incorrect behavior or response to any of the questionnaires or materials in this study. However, if you still have any concerns about this study, then please speak with the research assistant about your concerns or contact Dr. David Lishner (at lishnerd@uwosh.edu). Either of these individuals will be more than happy to talk with you about any concerns you may have.

Again, thank you very much for your participation. We value the time and energy you spent in this study and it is our hope that the data you have provided will help us to better understand human psychology.

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