Limitations of the Evidence that Perspective Taking Increases Empathy

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Abstract

Perspective taking is commonly believed to increase empathy. To support this idea, empirical research must show two pieces of evidence. First, perspective taking interventions should make people empathize more than they would by default. Second, the increase in empathy should be due to perspective taking, and not some other feature of the intervention. Much of the evidence that perspective taking increases empathy comes from studies that compare a perspective taking condition to a condition where subjects are asked to “remain objective”. However, if subjects are not objective to begin with, then asking them to “remain objective” might make them empathize less, which makes it unclear if perspective taking also makes them empathize more. In two new experiments and one replication of the well-known “Katie Banks” experiment, subjects were assigned to a perspective taking intervention, an objective intervention, or no intervention. Subjects assigned to the perspective taking intervention did not empathize more than subjects assigned to no intervention; instead, subjects assigned to the objective intervention down-regulated their emotions and empathized less. Further evidence about whether, when, and how perspective taking increases empathy is needed.

Keywords: empathy, sympathy, compassion, vicarious emotions, perspective taking, role taking

Limitations of the Evidence that Perspective Taking Increases Empathy

When someone is going through an emotional experience, what makes an observer empathize? One common belief is that empathy is caused by perspective taking—actively imagining others’ mental states. For example, Coke, Batson, and McDavis proposed a two-stage model of helping, where the first step is that “taking the perspective of a person in need tends to increase one’s empathic emotional response” (p. 753, 1978),¹ and later Batson and colleagues stated that “perhaps the most plausible and prominent answer to the question of what leads us to feel more or less empathy for a person in need is *perspective taking*—actively imagining how the other is affected by his or her plight” (Batson, Eklund, Chermok, Holt, & Ortiz, 2007, p. 65).

What evidence is there that perspective taking causes empathy? To answer this question, we searched PsycInfo for peer-reviewed articles published by October 2018 that had the keywords “empathy”, “empathic concern”, “sympathy”, or “compassion”, and “perspective taking” or “role-taking”. We looked for experiments where the independent variable included a perspective taking condition and a no-perspective taking control condition,² and where the dependent variable was other-oriented

¹ Coke et al. also stated that perspective taking is not the only cause of empathy.

² We excluded studies that compared imagining oneself in the other’s place vs. imagining how the other feels, but did not have a control condition. Imagining oneself in the other’s place is typically considered to be more self-focused than imagining how the other feels (Batson, 2009; Batson, Early, & Salvarani, 1997; Hoffman, 2000). Some

emotions.³ We found 56 comparisons⁴ that fit these criteria (see Table S1 in the supplemental materials for details).

What should we see from these experiments to confirm that perspective taking increases empathy? First, the perspective taking intervention should make people empathize more than they would by default, or else there would be no increase in empathy. Second, the increase in empathy must be due to perspective taking, and not due to some other confounding feature of the perspective taking intervention.

Do perspective taking interventions make people empathize more than they would by default? This can be tested by comparing perspective taking interventions to no intervention. There were 21 comparisons with a no intervention condition. For some of these comparisons, the procedures in the perspective taking and no intervention conditions were identical, except that subjects in the perspective taking condition were instructed to take a target's perspective, and subjects in the no intervention condition received no instructions (no instructions, see Table 1). Fewer than one quarter of these comparisons found a main effect of perspective taking and more than half found no effect or had ambiguous results (e.g., the dependent variable combined empathy with

studies find emotional differences between these two forms of perspective taking (e.g., Batson et al., 1997), and others do not (e.g., Myers, Laurent, & Hodges, 2014).

³ We excluded two experiments that used perspective taking as only one component of a broader intervention (see Table S1).

⁴ A couple of studies are counted twice because they had multiple control conditions, and therefore, multiple comparisons.

self-reported perspective taking). For other comparisons, subjects in the no intervention condition were never even exposed to the target's emotional experience (no exposure), so it is unclear whether any effects are due to differences in perspective taking or differences in exposure. Taken together, the evidence that perspective taking makes people empathize more than they would by default is inconclusive.

Table 1

The Effects of Perspective Taking on Empathy in Previous Research

Control Condition	Main Effect	Results		Ambiguous	Total
		Interaction Only	No Effect		
<u>No intervention</u>					
No instructions	3	3	5	2	13
No exposure	4	0	1	3	8
<u>Control intervention</u>					
Objective	23	0	3	3	29
Other	1	2	3	0	6
Total	31	5	12	8	56

Note:

Main Effect: average difference between the perspective taking and control conditions

Interaction Only: no main effect; the difference between the perspective taking and control conditions interacted with another variable (e.g., Agreeableness).

Ambiguous: methodological limitations make the results hard to interpret (e.g., because the dependent variable combined empathy with self-reported perspective taking)

If we assume that perspective taking interventions do increase empathy, then do they increase empathy because of perspective taking, and not because of some other confounding feature of the intervention? This can be demonstrated by comparing a

perspective taking intervention to a control intervention. The control intervention should closely resemble the perspective taking intervention, but it should not involve perspective taking. Both interventions might make subjects empathize more than they would by default (e.g., by directing attention to the target), but perspective taking must add something extra. There were 35 comparisons with a control intervention. For example, in one control intervention subjects were asked to imagine what a newspaper reviewer would think, and in another control intervention they were asked to focus on the technical features that had an impact in an audio or video recording of the target of empathy. Among studies that used these interventions, one found a main effect, two found interactions only, and three found no effect.

However, in the most popular control intervention subjects were asked to remain objective while they were exposed to a target's emotional experience. Here is an example (Batson et al., 1991, p. 416):

... try to take an objective perspective, being as objective as possible about what has happened to this student and how it has affected her life. Try not to let yourself get caught up in imagining what this student has been through and how she feels as a result. Just listen objectively to the information presented in the broadcast.

This control intervention was used in about half of the 56 comparisons, and studies that used it found a main effect of perspective taking more than 80% of the time. It has also

been used in experiments that test the effects of perspective taking on other outcomes, such as stereotyping and prejudice (e.g., Vescio, Sechrist, & Paolucci, 2003; Vorauer & Sasaki, 2009).

The objective intervention presumably resembles perspective taking interventions, but without the perspective taking. Batson stated that “an objective perspective is as focused on the other and the other’s situation as is either an imagine-other or imagine-self perspective” (Batson, 2009, p. 268), implying the main difference is that the objective intervention discourages perspective taking. If it is true that the main difference between perspective taking and objective interventions is the presence or absence of perspective taking, then this body of research provides strong evidence that perspective taking increases empathy.

However, the objective intervention might lead to less empathy for a reason that has little to do with perspective taking. Specifically, when subjects are discouraged from attending to a target’s feelings, they might interpret this as a cue to avoid empathizing. As a consequence, they might actively down-regulate their empathy, even if what made them empathize in the first place had nothing to do with perspective taking. This makes it difficult to conclude that perspective taking increases empathy when a perspective taking intervention is compared to an objective condition. If there is a difference in empathy, then it might not be due to increased empathy from perspective taking, but rather due to decreased empathy from remaining objective. The results would not show

that perspective taking increases empathy, but that people can down-regulate their empathy when they are asked to do so.

The purpose of the present research was to provide a clearer test of whether perspective taking increases empathy. Subjects were exposed to someone's emotional experience and received a perspective taking intervention, an objective intervention, or no intervention. We compared subjects' empathy under these three different conditions. This design allowed us to test three hypotheses:

- 1) Perspective taking increases empathy over the default (perspective taking vs. no intervention)
- 2) Perspective taking increases empathy over a presumably similar control intervention (perspective taking vs. objective)
- 3) Telling subjects to remain objective makes them down-regulate their empathy (objective vs. no intervention)

Note that if we find evidence for the third hypothesis, it will invalidate any evidence for the second, because it will mean that the difference between the perspective taking and control interventions is not just the presence or absence of perspective taking.

In the context of these studies, we define empathy as feeling the same emotion as the other person, similar to other researchers (Bernhardt & Singer, 2012; Bloom, 2016; Eisenberg, Shea, Carlo, & Knight, 1991; Feshbach, 1975; Wondra & Ellsworth, 2015), but empathy researchers are often interested in sympathy or empathic concern as well.

Therefore, we tested the effects of perspective taking on empathy, sympathy, and empathic concern. There were three studies. In the first two studies, we tested whether the perspective interventions affected how much subjects felt the same emotion as the targets (empathy) and how much they felt sympathy for the targets. In Study 1, subjects read a letter from someone who was sad about a misfortune, and in study 2 they read a letter from someone who was angry about a misfortune. We tested whether the interventions affected how much empathic sadness subjects felt (Study 1), how much empathic anger they felt (Study 2), and how sympathetic they felt (Studies 1 and 2). In Study 3, we replicated a popular experiment from Batson and colleagues (e.g., Batson et al., 1997), where subjects learned about a young woman named Katie Banks whose parents died in a car crash. We tested whether the perspective interventions affected how much empathic concern⁵ subjects felt for Katie and how much they helped her. We realized that the objective control condition might make people down-regulate their empathy after we already began collecting data for Studies 1-2, and the no instructions control condition was added later. But for Study 3 all three perspective conditions were run from the beginning, and the results are similar to Studies 1-2.

Additionally, in studies 1-2, subjects completed the perspective taking and empathic concern subscales of the Interpersonal Reactivity Index (Davis, 1980, 1983b).

⁵ We do not think empathic concern is a different emotional experience than sympathy, but we use the term because it commonly refers to the specific set of emotion adjectives that were used in Study 3.

We included the IRI subscales in Studies 1-2 because they are commonly used in empathy research, and because one study found that IRI perspective taking moderated the effect of a perspective taking intervention on subjects' emotions in response to a sad movie clip (Davis, Hull, Young, & Warren, 1987). We did not find any evidence that the IRI subscales moderated the effects of the perspective taking interventions in a consistent and interpretable way, so all analyses involving the IRI subscales appear in the supplemental materials.

Study 1

Subjects read a bogus letter from someone who was sad about a recent misfortune. Subjects were instructed to take her perspective, were instructed to remain objective, or received no intervention. Because the target felt sad, empathy was defined as subjects' own sadness. We tested whether perspective taking increased subjects' empathy and sympathy, and whether remaining objective decreased their empathy and sympathy.

Study 1 Method

Subjects

Subjects were 203 (122 women, 79 men, one transgender, one did not report gender) undergraduates and community members who participated for course credit or \$5. Data collection stopped when there were at least 64 subjects per condition, which is the sample size needed for 80% power to detect a medium effect with an independent

samples t test comparing two groups. Data from an additional 17 subjects were excluded prior to analyzing the data; five subjects suspected the letter they read was fake, seven were inattentive to the experimenter, one misunderstood the situation that was described in the letter, three were non-native English speakers who had trouble understanding the letter or instructions, and one reported that he had a concussion.

Procedure

Subjects were told the study was about how people communicate about personal experiences. They were asked to write a letter to a future participant about something interesting that happened to them recently, and they were told they would read a similar letter that was randomly selected from a previous participant.

After subjects wrote their own letter, they were given a bogus letter from a previous participant. Subjects in the perspective taking and objective conditions were told that the way they read the letter was important. Those in the perspective taking condition were told to “try to imagine how the other person feels about what is described. Try to imagine how it has affected her life and how she feels as a result,” whereas those in the objective condition were told to “try not to get caught up in how the other person feels; just remain objective and detached”. Subjects in the no intervention condition received no instructions.

All subjects read a letter from a student named Melissa:

Dear future participant,

So I'm supposed to write about something interesting that happened to me recently. Well, a couple of weeks ago I tried to go on a road trip with a friend, but couldn't go because of bad circumstances. My best friend of 10 years is getting married in two months and she asked me to be her maid of honor, so of course I got to plan her bachelorette party. We always wanted to visit New York City together so that was the perfect place for us to do it. One of my friends here wanted to visit his friends in NYC that weekend so he offered to drive us both. He was having some car troubles so I asked if he would be able to get it fixed before the trip or if I should try to find another way to get there. He told me that he took the car in for repairs and we were all set, so we left a few days later. Then suddenly, when we were a quarter of the way there, his car started making noises and it just died. So it turns out that he got the car fixed but the replacement part was defective. We towed the car to a mechanic but they didn't have the parts they needed to fix the car. So I called another friend to come pick me up and take me back to Ann Arbor. There weren't any more flights to NYC so I got stuck here and missed my best friend's bachelorette party. I cried about it for a few days after we got back and I'm tearing up thinking about it now. I still can't believe that happened and I'm still really upset about it.

Sincerely, Melissa

After subjects read the letter, they completed a survey on a computer with the dependent variables. After they completed the survey, subjects were debriefed and thanked for their participation.

The letter exchange and perspective instructions were similar to a method used by Batson and colleagues (e.g., Batson, Chang, Orr, & Rowland, 2002; Batson, Eklund, et al., 2007; Batson, Kennedy, et al., 2007), except that subjects first wrote a letter to enhance the cover story.

Measures

Because the target felt sad, empathy was defined as subjects' own sadness. The main dependent variables were subjects' self-reports of sadness (empathy) and sympathy. The measures are reported in the order they appeared in the questionnaire.

Empathic sadness and sympathy. Subjects reported how they felt in both an open-ended format and a closed-ended format.

Open-ended. In the open-ended format, subjects were asked "Now that you've finished reading the letter, what are your main feelings right now?", followed by three lines where subjects could write their feelings. The vast majority of subjects wrote 1-3 single emotion words (e.g., "Sadness, Empathy, Surprised"). The subjects were also invited to explain their responses if they wanted. Their responses were coded for sadness- and sympathy-related words.

Closed-ended. Subjects reported how much they felt sad, down, sympathetic, compassionate, interested, worried, proud, curious, amused, surprised, mad, afraid, happy, hopeful, disgusted, embarrassed, shocked, angry, frustrated, guilty, angry at self, and grateful (1 = Not at all, 5 = Extremely), with the emotion words in a random order. The items "sad" and "down" ($r = .60$) were averaged to measure sadness and "sympathetic" and "compassionate" ($r = .48$) were averaged to measure sympathy.

Perceptions of Melissa's emotions. Subjects reported their perceptions of how the letter writer felt in both an open-ended format and a closed-ended format. These measures paralleled the reports of their own emotions, but without the items

“sympathetic” and “compassionate” in the closed-ended format. If there were evidence that perspective taking increased empathy, these ratings would be used as a potential mediator to explore if perspective taking increased empathy by making subjects more attentive to how the target feels.

Appraisals of Melissa’s situation and perceptions of her appraisals. We included items about subjects’ appraisals of Melissa’s situation and about their perceptions of Melissa’s appraisals of her own situation. These were included for exploratory purposes and are described in the supplemental materials.

Study 1 Results

We tested whether perspective taking increased, or taking an objective perspective decreased, subjects’ empathy and sympathy.

Analytic Approach to the Open-Ended Reports of Empathy and Sympathy

To analyze subjects’ open-ended reports of their emotions, their responses were coded for words related to sadness and sympathy. First, subjects’ experimental conditions were removed from their open-ended responses so the coder would be blind to condition. Emotion words related to sadness and sympathy were identified (see Table 2). Subjects received a score of 1 if they mentioned at least one sadness- or sympathy-related word and a score of 0 if they did not. We used logistic regression to test whether there were differences in the predicted probability that subjects felt

sadness or sympathy among the three conditions. Data from one subject were excluded because they said they misunderstood the open-ended self-report questions.

Table 2

Subjects' Open-Ended Self-Reports of Their Own Emotions (Study 1)

Emotion Group	Emotion Words
Sadness	defeat, depressed, depression, despair, disappointed, disappointing, disappointment, disheartened, down, heartbroken, helpless, helplessness, melancholy, sad, saddened, sadness, solemn, sorrow
Sympathy	caring, compassion, compassionate, concern, concerned, empathetic, empathic, empathy, pity, sorry, sympathetic, sympathy, wish I could help

NOTE: Although we as researchers are treating empathy as feeling the same emotion as others, subjects were more likely to use it to express care and concern, so empathy-related words were treated as sympathy-related words.

Did Perspective Taking Increase Empathy, or Did Remaining Objective Decrease It?

Figure 1 displays subjects' self-reported sadness by condition.⁶ To have evidence that perspective taking increased empathy, we needed to find (1) that perspective taking made subjects feel sadder than a control intervention (objective condition), and (2) that perspective taking made subjects feel sadder than they would by default (no intervention condition).

⁶ The sample sizes in figures are based on the available data for the analysis, and they can be different if subjects have missing data (typically 1-2 subjects).

Figure 1. Study 1 subjects' self-reports of empathic sadness in the open-ended responses (left) and closed-ended responses (right, bars represent ± 1 standard error). Compared to the no intervention condition, perspective taking did not increase empathic sadness (open-ended $p = .93$, closed-ended $p = .25$), but remaining objective decreased it (open-ended $p = .07$, closed-ended $p = .03$).

In subjects' open-ended responses, there was a non-significant trend for them to be more likely to feel sad when they took Melissa's perspective (70%) than when they remained objective (54%), $B = .68$, $SE = .37$, $Z = 1.86$, $p = .06$, 95% CI $[-.03, 1.41]$. Similarly, in their closed-ended responses, subjects felt sadder when they took Melissa's perspective ($M = 2.96$, $SD = 1.12$) than when they remained objective ($M = 2.36$, $SD = .95$), $t(127.90) = 3.33$, $p = .001$, 95% CI $[.24, .96]$. If we had run only these conditions, we might have concluded that perspective taking does indeed increase empathy, since subjects empathized more when they took the target's perspective than when they completed a control intervention.

However, when we compare the perspective taking condition to the no intervention condition, we can see that this conclusion would be mistaken. In their open-ended responses, subjects were just as likely to feel sad when they took Melissa's perspective (70%) as when they received no intervention (69%), $B = .03$, $SE = 0.37$, $Z = 0.09$, $p = 0.93$, 95% CI $[-0.70, 0.76]$. Similarly, in their closed-ended responses, subjects felt just as sad when they took Melissa's perspective ($M = 2.96$, $SD = 1.12$) as when they received no intervention ($M = 2.75$, $SD = 1.10$), $t(135.20) = 1.15$, $p = 0.25$, 95% CI $[-.16, .59]$. This means that perspective taking did not make subjects empathize more than they would by default.

Furthermore, there was evidence that taking an objective perspective decreased empathy. In their open-ended responses, there was a non-significant trend for subjects to be less likely to feel sad when they remained objective (54%) than when they received no intervention (69%), $B = -.65$, $SE = .36$, $Z = 1.81$, $p = .07$, 95% CI $[-1.36, .05]$. Similarly, in their closed-ended responses, subjects did not feel as sad when they remained objective ($M = 2.36$, $SD = .95$) as when they received no intervention ($M = 2.75$, $SD = 1.10$), $t(133.64) = 2.19$, $p = .031$, 95% CI $[-.73, -.04]$. This means that taking an objective perspective made subjects empathize *less* than they would by default.

In summary, there was no evidence that perspective taking increased subjects' empathy, because it did not make them empathize more than they would by default. However, there was evidence that taking an objective perspective made subjects

empathize less than they would by default, which suggests that we cannot use past research that compared the perspective taking and objective interventions to conclude that perspective taking increases empathy.

Did Perspective Taking Increase Sympathy, or Did Remaining Objective Decrease It?

Although perspective taking didn't make subjects feel what Melissa felt, it might have made them more sympathetic.

Figure 2 displays subjects' self-reported sympathy by condition. As with empathy, to have evidence that perspective taking increased sympathy, we needed to find (1) that perspective taking made subjects feel more sympathetic than a control intervention (objective condition), and (2) that perspective taking made subjects feel more sympathetic than they would by default (no intervention condition).

Figure 2. Study 1 subjects' self-reports of sympathy in the open-ended responses (left) and closed-ended responses (right, bars represent ± 1 standard error). Compared to

the no intervention condition, perspective taking did not increase sympathy (open-ended $p = .91$, closed-ended $p = .33$), nor did remaining objective decrease sympathy (open-ended $p = .20$, closed-ended $p = .052$).

In subjects' open-ended responses, there was no difference in how likely they were to feel sympathetic when they took Melissa's perspective (67%) and when they remained objective (57%), $B = .41$, $SE = .36$, $Z = 1.15$, $p = .25$, 95% CI $[-.29, 1.13]$. However, in their closed-ended responses, subjects felt more sympathetic when they took Melissa's perspective ($M = 3.71$, $SD = .99$) than when they remained objective ($M = 3.21$, $SD = .99$), $t(129.86) = 2.92$, $p = .004$, 95% CI $[.16, .84]$. As with empathy, if we had run only these conditions, we might have concluded, albeit weakly, that perspective taking increases sympathy, since there was some evidence that subjects sympathized more when they took the target's perspective than when they completed a control intervention.

However, when we compare the perspective taking condition to the no intervention condition, we can see that this conclusion would be mistaken. In their open-ended responses, subjects were just as likely to feel sympathetic when they took Melissa's perspective (67%) as when they received no intervention (68%), $B = -.04$, $SE = 0.36$, $Z = 0.12$, $p = 0.91$, 95% CI $[-.76, .67]$. Similarly, in their closed-ended responses, subjects felt just as sympathetic when they took Melissa's perspective ($M = 3.71$, $SD = .99$) as when they received no intervention ($M = 3.54$, $SD = 1.00$), $t(135.73) = 0.99$, $p = 0.33$,

95% CI [-.17, .50]. This means that perspective taking did not make subjects sympathize more than they would by default.

Although directionally subjects sympathized less when they took an objective perspective than when they received no intervention, the differences were weaker than they were for empathy and they were not statistically significant. In their open-ended responses, there was no difference in how likely subjects were to feel sympathetic when they remained objective (57%) and when they received no intervention (68%), $B = -.46$, $SE = .36$, $Z = 1.28$, $p = .20$, 95% CI [-1.16, .24]. In their closed-ended responses, there was a non-significant trend for subjects to feel less sympathy when they remained objective ($M = 3.21$, $SD = .99$) than when they received no intervention ($M = 3.54$, $SD = 1.00$), $t(133.20) = 1.96$, $p = .052$, 95% CI [-.67, .003].

In summary, there was no evidence that perspective taking increased subjects' sympathy, because it did not make them sympathize more than they would by default, nor was there clear evidence taking an objective perspective made subjects sympathize less than they would by default.

Study 1 Discussion

Study 1 tested whether perspective taking made subjects empathize and sympathize more, remaining objective made them empathize and sympathize less, or both. There was no evidence that perspective taking increased empathy or sympathy. When subjects were instructed to take Melissa's perspective, they did not feel any more

empathic sadness or sympathy than they would have by default if they had received no intervention. Instead, the general trend was for subjects to feel less empathy when they were asked to remain objective.

In Study 1, subjects felt empathy for someone who was sad without the need to take her perspective. In Study 2, we attempted to replicate this finding with a different emotional experience—anger. In general, people may be more hesitant to empathize with someone who is angry, because they might consider the well-being of the target of the anger, and empathize with that person instead (Smith, 1759/2010, p. 10). If they are more hesitant to empathize by default with someone's anger, then there might be more of an opportunity for perspective taking to make them empathize more.

Study 2

The procedure and measures of Study 2 were identical to Study 1, except the target was angry about a misfortune instead of sad, and therefore empathy was defined as how angry subjects felt. We tested whether the perspective taking intervention increased, or taking an objective perspective decreased, subjects' empathic anger and sympathy.

Study 2 Method

Subjects

Subjects were 199 (116 women, 81 men, two did not report gender) undergraduate students and community members who participated for course credit or

\$5. Data collection stopped when there were at least 64 subjects per condition, which is the sample size needed for 80% power to detect a medium effect with an independent samples t test comparing two groups. Data from an additional 24 subjects were excluded prior to analyzing the data; 15 subjects suspected the letter they read was fake, six were inattentive to the experimenter, one misunderstood the situation that was described in the letter, one was a non-native English speaker who had trouble understanding the study, and one discovered the experimental condition during the study due to experimenter error.

Procedure

The procedure and dependent variables were identical to Study 1 except for the letter that subjects read, which was changed so that Melissa was angry about a misfortune that was caused by someone else, instead of sad about a misfortune that was caused by impersonal circumstances.

Dear future participant,

So I'm supposed to write about something interesting that happened to me recently. Well, a couple of weeks ago I tried to go on a road trip with a friend, but couldn't go because of my friend who was supposed to drive. My best friend of 10 years is getting married in two months and she asked me to be her maid of honor, so of course I got to plan her bachelorette party. We always wanted to visit New York City together so that was the perfect place for us to do it. One of my friends here wanted to visit his friends in NYC that weekend so he offered to drive us both. He was having some car troubles so I asked if he would be able to get it fixed before the trip or if I should try to find another way to get there. He told me that he took the car in for repairs and we were all set, so we left a few days later. Then suddenly, when we were a quarter of the way there, his car started making noises and it just died. *So it turns out that he didn't get the car fixed and he had lied to me about taking it in.* We towed the car to a mechanic but they

didn't have the parts they needed to fix the car. So I called another friend to come pick me up and take me back to Ann Arbor. There weren't any more flights to NYC so I got stuck here and missed my best friend's bachelorette party. *I didn't talk to my friend for a few days after we got back and I'm fuming thinking about it now.* I still can't believe that happened and I'm still really upset about it.
Sincerely, Melissa

Subjects were randomly assigned the perspective taking, objective, or no intervention condition. For the closed-ended emotion self-reports, the items "mad" and "angry" were averaged to measure anger ($r = .80$) and "sympathetic" and "compassionate" were averaged to measure sympathy ($r = .53$).

Study 2 Results

We tested whether perspective taking made subjects empathize and feel anger, the emotion that Melissa felt, and whether it made them feel sympathetic for her.

Analytic Approach to the Open-Ended Reports of Anger and Sympathy

The analytic approach to subjects' open-ended reports of their emotions was the same as Study 1. Table 3 displays the anger-related and sympathy-related words that subjects wrote.

Table 3

Subjects' Open-Ended Self-Reports of Their Own Emotions (Study 2)

Emotion Group	Emotion Words
Anger	agitated, anger, angry, annoyance, annoyed, bitter, furious, irritation, mad, outraged
Sympathy	apologetic, caring, compassion, concern, concerned, consoling, empathetic, empathic, empathy, pity, sorriness, sorry, sympathetic, sympathy

Did Perspective Taking Increase Empathy, or Did Remaining Objective Decrease It?

Figure 3 displays subjects' self-reported anger by condition. To have evidence that perspective taking increased empathy, we needed to find (1) that perspective taking made subjects feel angrier than a control intervention (objective condition), and (2) that perspective taking made subjects feel angrier than they would by default (no intervention condition).

Figure 3. Study 2 subjects' self-reports of empathic anger in the open-ended responses (left) and closed-ended responses (right, bars represent ± 1 standard error). Compared to the no intervention condition, perspective taking did not increase empathy (open-ended $p = .90$, closed-ended $p = .14$), but remaining objective decreased it (open-ended $p = .01$, closed-ended $p < .001$).

In subjects' open-ended responses, they were more likely to feel angry when they took Melissa's perspective (43%) than when they remained objective (20%), $B = 1.11$, $SE = .40$, $Z = 2.78$, $p = .01$, 95% CI [.34, 1.91]. Similarly, in their closed-ended responses, subjects felt angrier when they took Melissa's perspective ($M = 2.72$, $SD = 1.30$) than when they remained objective ($M = 1.72$, $SD = .94$), $t(116.43) = 5.02$, $p < .001$, 95% CI [.61, 1.39]. If we had run only these conditions, we might have concluded that perspective taking does indeed increase empathy, since subjects empathized more when they took the target's perspective than when they completed a control intervention.

However, when we compare the perspective taking condition to the no intervention condition, we can see that this conclusion would be mistaken. In their open-ended responses, subjects were just as likely to feel angry when they took Melissa's perspective (43%) as when they received no intervention (42%), $B = .04$, $SE = 0.35$, $Z = 0.12$, $p = 0.90$, 95% CI [-0.64, 0.73]. Similarly, in their closed-ended responses, subjects felt just as angry when they took Melissa's perspective ($M = 2.72$, $SD = 1.30$) as when they received no intervention ($M = 2.39$, $SD = 1.20$), $t(129.33) = 1.50$, $p = 0.14$, 95% CI [-.10, .75]. This means that perspective taking did not make subjects empathize more than they would by default.

Furthermore, there was evidence that taking an objective perspective decreased empathy. In their open-ended responses, subjects were less likely to feel angry when they remained objective (20%) than when they received no intervention (42%), $B = -1.06$, $SE = .39$, $Z = 2.70$, $p = .01$, 95% CI $[-1.86, -.31]$. Similarly, in their closed-ended responses, subjects felt less angry when they remained objective ($M = 1.72$, $SD = .94$) than when they received no intervention ($M = 2.39$, $SD = 1.20$), $t(127.90) = 3.65$, $p < .001$, 95% CI $[-1.04, -.31]$. This means that taking an objective perspective made subjects empathize *less* than they would by default.

In summary, there was no evidence that perspective taking increased subjects' empathy, because it did not make them empathize more than they would by default. However, there was evidence that taking an objective perspective made subjects empathize less than they would by default. These results replicate Study 1, and confirm that we cannot use past research that compared the perspective taking and objective interventions to conclude that perspective taking increases empathy.

Did Perspective Taking Increase Sympathy, or Did Remaining Objective Decrease It?

Figure 4 displays subjects' self-reported sympathy by condition. As with empathy, to have evidence that perspective taking increased sympathy, we needed to find (1) that perspective taking made subjects feel more sympathetic than a control intervention (objective condition), and (2) that perspective taking made subjects feel

more sympathetic than they would by default (no intervention condition).

Figure 4. Study 2 subjects' self-reports of sympathy in the open-ended responses (left) and closed-ended responses (right, bars represent ± 1 standard error). Compared to the no intervention condition, perspective taking did not increase sympathy (open-ended $p = .33$, closed-ended $p = .09$), but remaining objective decreased it (open-ended $p = .09$, closed-ended $p < .001$).

In subjects' open-ended responses, there was no difference in how likely they were to feel sympathetic when they took Melissa's perspective (57%) and when they remained objective (51%), $B = .25$, $SE = .35$, $Z = .70$, $p = .48$, 95% CI $[-.44, .94]$. However, in their closed-ended responses, subjects felt more sympathetic when they took Melissa's perspective ($M = 3.73$, $SD = .96$) than when they remained objective ($M = 2.72$, $SD = .98$), $t(127.98) = 5.92$, $p < .001$, 95% CI $[.67, 1.35]$. As with empathy, if we had run only these conditions, we might have concluded, albeit weakly, that perspective taking increases

sympathy, since there was some evidence that subjects sympathized more when they took the target's perspective than when they completed a control intervention.

However, when we compare the perspective taking condition to the no intervention condition, we can see that this conclusion would be mistaken. In their open-ended responses, subjects were just as likely to feel sympathetic when they took Melissa's perspective (57%) as when they received no intervention (65%), $B = -.35$, $SE = 0.36$, $Z = 0.98$, $p = 0.33$, 95% CI [-1.05, .35]. Similarly, in their closed-ended responses, there was only a non-significant trend for subjects who took Melissa's perspective to feel more sympathetic ($M = 3.73$, $SD = .96$) than those who received no intervention ($M = 3.43$, $SD = 1.02$), $t(132.00) = 1.73$, $p = 0.09$, 95% CI [-.04, .64]. There was little evidence that perspective taking made subjects sympathize more than they would by default.

Furthermore, there was some evidence that subjects sympathized less when they took an objective perspective than when they received no instructions. In their closed-ended responses, subjects felt less sympathetic when they remained objective ($M = 2.72$, $SD = .98$) than when they received no intervention ($M = 3.43$, $SD = 1.02$), $t(131.97) = 4.12$, $p < .001$, 95% CI [-1.05, -.37]. In their open-ended responses, there was a non-significant trend for subjects to be less likely to feel sympathetic when they remained objective (51%) than when they received no intervention (65%), $B = -.60$, $SE = .35$, $Z = 1.69$, $p = .09$, 95% CI [-1.30, .09]. These results mean that taking an objective perspective made subjects sympathize less than they would by default.

In summary, there little evidence that perspective taking increased subjects' sympathy, because it did not make them sympathize more than they would by default, but there was stronger evidence that taking an objective perspective made subjects sympathize less than they would by default, meaning we cannot use past research that compared the perspective taking and objective interventions to conclude that perspective taking increases sympathy.

Study 2 Discussion

Study 2 tested whether perspective taking made subjects empathize and sympathize more, remaining objective made them empathize and sympathize less, or both. Overall, there was little evidence that perspective taking made subjects empathize or sympathize more than they would by default. In contrast, there was stronger evidence that remaining objective made them empathize and sympathize less. These results converge with the results of Study 1.

The results of Studies 1 and 2 raise a question about whether differences in empathy that have been found in previous research, using different methods, were really due to decreases in empathy in the objective condition rather than increases in empathy in the perspective taking condition. In Study 3 we tested this possibility by replicating the "Katie Banks" experiment, which is commonly used in empathy research.

Study 3

In Study 3, we once again tested whether perspective taking increases empathy, remaining objective decreases it, or both. This time, we replicated Batson and colleagues' "Katie Banks" experiment, which has been used many times in previous research to study empathy and helping (e.g., Baumeister, Masicampo, & DeWaal, 2009; Batson et al., 1997; Coke et al., 1978; Davis, 1983a; Graziano, Habashi, Sheese, & Tobin, 2007; Maner et al., 2002; Marsh, Kozak, & Ambady, 2007; Myers et al., 2014; Stocks, Lishner, & Decker, 2009; Wright, Shaw, & Jones, 1990). In addition to testing the effects of perspective taking on empathy, this method allowed us to test whether perspective taking increases helping, remaining objective decreases helping, or both.

Additionally, we added self-report questions about emotion regulation. This allowed us to test in a different way whether subjects empathized by default in the no intervention condition, but they were actively down-regulating their emotions in the objective condition. We asked about reappraisal, expressive suppression, and self-distancing, which are three methods of emotion regulation that are commonly studied in the emotion regulation literature (Gross & John, 2003; Kross & Ayduk, 2011).

Study 3 Method

Subjects

Subjects were 218 (135 women, 78 men, five did not report gender) undergraduates who participated for course credit. Data collection stopped when there were at least 64 subjects per condition, which is the sample size needed for 80% power

to detect a medium effect with an independent samples t test comparing two groups.

Data from an additional 35 subjects were excluded prior to analyzing the data; 29 subjects suspected the broadcast was fake, four were inattentive to the experimenter, one was a non-native English speakers who had trouble understanding instructions, and one had the experimenter make a mistake during the procedure.

Procedure

The procedure was modeled after Batson et al., 1997.⁷ Subjects were greeted individually by an experimenter, who asked them for the last three digits of their student IDs, gave them a written introduction to the study, and walked away. The introduction explained that the study was a collaboration between Dr. Daniel Edmonds and the university radio station to pilot test new programming ideas. Subjects would be randomly assigned to listen to *Bulletin Board*, a program announcing campus events, or *News from the Personal Side*, a program reporting how local events affect the lives of the individuals involved. Then they would complete a questionnaire to evaluate the program.

When the experimenter returned, the subject was told that because their student ID ended in an odd (even) number, they would listen to News from the Personal Side. The experimenter set up the broadcast on a computer and instructed the subject how to

⁷ We are grateful to Bill Graziano and Meara Habashi for providing the original materials from their own study that used the Katie Banks experiment (Graziano et al., 2007). Graziano believes they received materials directly from Batson.

listen over headphones that were provided. Then the experimenter gave the subject additional instructions to read before listening to the broadcast. The instructions provided the manipulation of perspective taking (perspective taking, objective, no intervention). In the no intervention condition ($n = 74$), the instructions explained that the recording they would hear was a pilot for the News from the Personal Side program, which intended to take a warmer and more personal approach to reporting on events that affect people's lives, that the audio quality would be lower than normal broadcast standards because the recording was a pilot, and that the tape would not be aired and would only be heard by participants in the study.

In the perspective taking ($n = 72$) and objective ($n = 72$) conditions, the instructions went on to say: "One factor that Dr. Edmonds has found especially important when determining reactions to broadcast material is listening perspective. Therefore, you will be asked to adopt a particular perspective while listening to your assigned broadcast tape." Those in the perspective taking condition read, "While you are listening to the broadcast, try to imagine how the person being interviewed feels about what has happened and how it has affected his or her life. Try not to concern yourself with attending to all the information presented. Just concentrate on trying to imagine how the person interviewed in the broadcast feels." Those in the objective condition read, "While you are listening to the broadcast, try to be as objective as possible about what has happened to the person interviewed and how it has affected

his or her life. To remain objective, do not let yourself get caught up in imagining what this person has been through and how he or she feels as a result. Just try to remain detached as you listen to the broadcast.”

The broadcast was about Katie Banks, a student from the University of Illinois at Chicago whose parents and younger sister were killed in a car accident. The broadcast opened and closed with the radio host, and had a recording of Katie in the middle:

HOST

Last week, a tragic accident struck the Banks family of Chicago, Illinois. Mr. and Mrs. George Banks and their 16-year-old daughter Jeannette were killed in a head-on collision 30 miles east of St. Louis. The Banks family have lived in Chicago for only six months. They were returning to their former home in St. Louis, Missouri to visit friends. Mr. and Mrs. Banks left three surviving children: Katie, a senior at the University of Illinois at Chicago, Alice, age 11, and Mark, age 8. Katie has been given temporary guardianship of her younger brother and sister. Unfortunately, Mr. Banks did not carry life insurance and the children were left with very little money. Katie is trying desperately to keep her family together and to finish school. She hopes to graduate this summer, but many problems confront her. She does not have enough money for groceries or rent. She needs sitters to stay with her brother and sister while she attends her classes, and she needs transportation to the grocery store, laundry, and to school, since she does not have a car. Katie is trying to raise money through private contributions. I talked with Katie Banks yesterday. She describes her situation in these words.

KATIE

It’s—it’s just such a nightmare. I guess I’m still numb. I know life has to go on. [pause] The most important thing for me now is to graduate on time. I need to be able to get a good job and support my little brother and sister. [pause] You know, the help we’ve gotten so far has really been wonderful, but we’ve got a long way to go. If we don’t get more help, I’m afraid I’ll have to drop out of school and find a job. [pause] And that’s going to make things worse, I think, because everybody knows that without a college degree you can’t make much money. [pause] If I have to drop out, I’m afraid that I’ll have to give up the children. I just—I won’t be able to make enough to support them.

HOST

Will Katie get the help she needs? This story is being broadcast with the hope that some of our listeners will be able to help out. If anyone wants to make a contribution of any size, call UIC Radio at (312)413-5085. This has been Ray Jones, UIC Radio.

After subjects listened to the broadcast, they completed an online survey where they reported the emotions they felt while listening to the broadcast (1 = Not at all, 7 = Extremely). The items "tender", "sympathetic", "compassionate", "softhearted", "moved", and "warm" were averaged to measure empathic concern.

Next, the experimenter brought a packet to the subjects that was addressed to "Participants hearing the News from the Personal Side broadcast". Subjects were told the packet contained a letter from Dr. Edmonds, who was in charge of the research, with some other forms that the letter would explain. The packet contained a letter from Dr. Edmonds, a letter from Katie Banks, a volunteer form, and an envelope with "Katie Banks" written on it.

The letter from Dr. Edmonds said that when he heard the News from the Personal Side broadcast and knew it would not be aired, it occurred to him that some of the participants from the study might want to help Katie Banks. He said Katie had written a letter describing what participants could do to help, that the subjects were not obligated to help Katie, and that the research assistant conducting the study knew nothing about Katie's situation.

The letter from Katie said that after she did the interview, she received a list of over 200 potential donors from the radio station. She had written a letter to the donors,

but was having trouble finding time to send the letters. She said the participants could help by spending a few hours stuffing and addressing envelopes to send to the donors. The radio station would provide all the materials they needed so they could do it at home during their free time.

The volunteer form had the UIC Radio logo and explained that subjects should complete the form if they wanted to sign up to help Katie Banks, but that due to the demands on staff time, only those who wished to help for at least 2 hours should sign up. There was space for subjects to write their names and contact information, as well as a check box where they could volunteer to sign up for 2-4 hours, 5-7 hours, or 8-10 hours.

After subjects were done with the packet, they completed another online survey that contained an evaluation of the broadcast (to add to the cover story), a questionnaire on their feelings about the opportunity to help Katie, and a demographic questionnaire. Embedded in the evaluation of the broadcast were questions about how much they concentrated on being objective and how much they concentrated on the feelings of the person being interviewed while they were listening to the broadcast (1 = Not at all, 7 = Very much). In addition, there were three questions about self-regulation strategies that subjects might have used while listening to the broadcast: one was about expressive suppression ("... to what extent did you control your emotions by not expressing them?", 1 = Not at all, 7 = Very much), the second was about reappraisal ("... to what

extent did you control your emotions by changing the way you thought about the situation Katie was in?", 1 = Not at all, 7 = Very much), and the third was about self-distancing ("... to what extent did you see Katie's situation playing through your own eyes versus saw it unfold from a distanced perspective?", 1 = Mostly through my own eyes, 7 = Mostly from a distanced perspective). The questions about reappraisal and expressive suppression were adapted from the Emotion Regulation Questionnaire (Gross & John, 2003), and the question about self-distancing was adapted from Mischkowski, Kross, and Bushman, 2012.

Finally, subjects were debriefed.

There were a few methodological differences from this study and the original study (Batson et al., 1997). First, the original study had a shared group membership manipulation, where Katie was either a student at the subjects' own university or a student at another university; in the present study, Katie was always a student at the subjects' own university. Second, the original study was interested in self-other merging as an outcome, but because the present study is concerned with differences in empathy only, the self-other merging dependent variables were dropped. Third, in the original study, the introduction mentions that Dr. Edmonds has found that listening perspective is important; this point would make no sense in the no intervention condition, so it was moved to the instructions that participants read before they listened to the broadcast. Third, the questions about emotion regulation were not in the original study; they were

added to test whether subjects in the objective condition would report greater use of different emotion regulation strategies, further supporting the idea that subjects in that condition are down-regulating the empathic emotions they would have felt by default.

Study 3 Results

Manipulation Check

Subjects reported concentrating on Katie's feelings just as much in the perspective taking condition ($M = 6.18$, $SD = .98$) as in the no intervention condition ($M = 5.99$, $SD = 1.05$), $t(142.66) = 1.15$, $p = .25$, 95% CI $[-.14, .53]$, but more in the perspective taking condition than in the objective condition ($M = 4.33$, $SD = 1.78$), $t(105.01) = 7.58$, $p < .001$, 95% CI $[1.36, 2.33]$. Additionally, subjects reported concentrating on Katie's feelings less in the objective condition than in the no intervention condition, $t(108.81) = 6.70$, $p < .001$, 95% CI $[-2.14, -1.16]$. Complementing this pattern, subjects reported concentrating on remaining objective more in the objective condition ($M = 5.54$, $SD = 1.28$) than in the perspective taking condition ($M = 4.60$, $SD = 1.50$), $t(137.20) = 4.01$, $p < .001$, 95% CI $[.48, 1.40]$, or in the no intervention condition ($M = 4.37$, $SD = 1.45$), $t(139.36) = 5.09$, $p < .001$, 95% CI $[.71, 1.62]$, with no difference between the perspective taking and no intervention conditions, $t(142.68) = .93$, $p = .35$, 95% CI $[-.26, .71]$. These results confirm that asking subjects to take the target's perspective did little beyond what they would have done anyway, but asking them to remain objective made them attend less to the target's feelings.

Did Perspective Taking Increase Empathic Concern, or Did Remaining Objective Decrease It?

The items sympathetic, softhearted, warm, tender, compassionate, and moved were averaged to measure empathic concern. Figure 5 displays subjects' average empathic concern by condition.

Figure 9. Subjects' average empathic concern by condition (bars represent ± 1 standard error) after listening to Katie's story. Compared to the no intervention condition, perspective taking did not increase empathic concern ($p = .77$), but remaining objective decreased it ($p = .02$).

Replicating previous research, subjects felt more empathic concern when they took Katie's perspective ($M = 4.46$, $SD = 1.17$) than when they remained objective ($M = 4.03$, $SD = 1.30$), $t(137.17) = 2.04$, $p = .04$, 95% CI [.01, .84].

However, they were not more empathetic than they would have been by default. Subjects who took Katie's perspective felt just as much empathic concern ($M = 4.46$, SD

= 1.17) as those who received no intervention ($M = 4.52$, $SD = 1.15$), $t(141.71) = .29$, $p = .77$, 95% CI [-.44, .33].

Furthermore, taking an objective perspective made subjects feel *less* empathic concern than they would have been by default. Subjects who took an objective perspective felt less empathic concern ($M = 4.46$, $SD = 1.17$) than those who received no intervention ($M = 4.52$, $SD = 1.15$), $t(137.47) = 2.34$, $p = .02$, 95% CI [.08, .89].

These results replicate prior research using the Katie Banks experiment, because subjects empathized more when they took Katie's perspective than when they remained objective. However, these results reveal that this was not because perspective taking increased empathic concern, but because remaining objective decreased it.

Emotion Regulation

To further explore why subjects empathized less in the objective condition, we tested whether they reported down-regulating their emotions. We analyzed whether there were differences in how much subjects suppressed their emotions, reappraised the situation, or took a distanced perspective. Figure 10 displays the average use of these

emotion regulation strategies by condition.

Figure 10. Subjects' average use of three emotion regulation strategies by condition (bars represent ± 1 standard error). Subjects in the objective condition suppressed their emotions more than those in the no intervention ($p = .01$) and perspective taking ($p < .001$) conditions.

Subjects suppressed their emotions more when they took an objective perspective ($M = 4.84$, $SD = 1.41$) than when they received no intervention ($M = 4.08$, $SD = 1.69$), $t(136.80) = 2.87$, $p = .01$, 95% CI [.24, 1.27], and when they took Katie's perspective ($M = 3.79$, $SD = 1.73$), $t(134.75) = 3.92$, $p < .001$, 95% CI [.52, 1.57]. These results suggest that subjects in the objective condition down-regulated the empathic emotions they felt by default.

Although subjects in the objective condition reported reappraising the situation and self-distancing the most, the means were not significantly different from the other two conditions. Subjects reappraised the situation as much when they took an objective

perspective ($M = 5.04$, $SD = 1.27$) as when they received no intervention ($M = 4.99$, $SD = 1.39$), $t(139.81) = .26$, $p = .80$, 95% CI $[-.38, .50]$, and as when they took Katie's perspective ($M = 4.64$, $SD = 1.62$), $t(1.66) = 1.66$, $p = .10$, 95% CI $[-.08, .89]$. Similarly, subjects distanced themselves as much when they took an objective perspective ($M = 4.54$, $SD = 1.93$) as when they received no intervention ($M = 4.04$, $SD = 1.81$), $t(137.93) = 1.58$, $p = .12$, 95% CI $[-.13, 1.12]$, and as when they took Katie's perspective ($M = 4.10$, $SD = 1.69$), $t(134.85) = 1.44$, $p = .15$, 95% CI $[-.17, 1.04]$.

There were no differences between the perspective taking and no intervention conditions in suppression, $t(142.81) = 1.02$, $p = .31$, 95% CI $[-.85, .27]$, reappraisal, $t(139.13) = 1.39$, $p = .17$, 95% CI $[-.84, .15]$, or self-distancing, $t(142.59) = .19$, $p = .85$, 95% CI $[-.52, .63]$.

In summary, subjects who were asked to remain objective actively attempted to down-regulate their empathy by suppressing their emotions.

Helping

Although the focus of this study was not on the effects of perspective taking on empathy, the Katie Banks experiment has typically been used to study the effects of empathy on helping. Because we used the experiment, we tested whether we replicated the effect of empathy on helping. Regardless of whether perspective taking increased empathic concern or remaining objective decreased it, we should see that subjects

volunteered more hours to help in the conditions where they felt more empathic concern.

The hours volunteered were skewed. Most subjects volunteering 0 or 2-4 hours, and only eight volunteered more than 4 hours. Table 3 displays the number and percent of subjects who volunteered 0, 2-4, 5-7, or 8-10 hours by condition. Overall, fewer subjects volunteered to help in the present study (48%) than in the original study by Batson and colleagues (63%).

Table 3

Number of Subjects Who Volunteered Hours to Help Katie Banks by Condition (Study 3)

Hours Volunteered	Perspective Taking	Control	Objective
0 hours	43 (60%)	33 (46%)	35 (51%)
2-4 hours	26 (36%)	35 (49%)	32 (47%)
5-7 hours	2 (3%)	3 (4%)	1 (1%)
8-10 hours	1 (1%)	1 (1%)	0 (0%)

Batson and colleagues analyzed the data in two ways.

First, they treated hours volunteered as a continuous variable and used ANOVA to compare the perspective taking and objective conditions. We took a GLM approach to test the pairwise contrasts between the perspective taking, objective, and no intervention conditions. There were no significant differences in helping across conditions. Subjects who took Katie's perspective helped just as much as those who

remained objective, $t(136.51) = .43$, $p = .67$, 95% CI [-.24, .15], and as those who received no intervention, $t(141.93) = 1.45$, $p = .15$, 95% CI [-.36, .06], and subjects who remained objective helped just as much as those who received no intervention, $t(135.86) = 1.12$, $p = .27$, 95% CI [-.09, .31].

Second, they treated hours volunteered as a dichotomous variable (0 hours vs. 2 or more hours), though the specific analysis was unclear; they stated they would use an ANOVA on a normal approximation of dichotomous helping based on an arcsine transformation, but then reported a chi square. We compared the three conditions using logistic regression and a chi square. Two subjects filled out the volunteer form (and indicated that they volunteered in the computer survey) but forgot to check the number of hours, and four subjects did not volunteer hours but left money for Katie or asked how they could directly donate money; these subjects were counted as helping Katie for the dichotomous helping analysis, but excluding them did not substantially change the results.

Subjects who took Katie's perspective were the *least* likely to help her (43%), though there were no significant differences across conditions. Using logistic regression, there was no significant difference in how much they helped Katie compared to subjects who took an objective perspective (49%), $B = -.13$, $SE = .17$, $Z = .74$, $p = .46$, 95% CI [-.46, .21], and there was a non-significant trend for them to help less than subjects who received no intervention (58%), $B = -.29$, $SE = .17$, $Z = 1.74$, $p = .08$, 95% CI [-.62, .04].

Subjects were as likely to help Katie when they took an objective perspective as when they received no intervention, $B = -.17$, $SE = .17$, $Z = .99$, $p = .33$, 95% CI $[-.50, .16]$. Using a chi square, there were no significant differences in the probability of helping between the three conditions, $\chi^2(2, N = 214) = 3.06$, $p = .22$.

In summary, perspective taking did not make subjects help Katie more, and remaining objective did not make them help less, even though they felt less empathic concern. We did not replicate the difference in helping that was originally found by Batson and colleagues.

Study 3 Discussion

Study 3 used the popular Katie Banks procedure from Batson and colleagues to test the effects of perspective taking on empathy. We replicated previous research by finding that subjects felt more empathic concern when they were asked to take Katie's perspective than when they were asked to remain objective. If we didn't have the no intervention condition, we might have mistakenly concluded that this meant perspective taking increased empathy. However, Study 3 expanded previous research by showing that this difference was due to decreased empathy from remaining objective, and not increased empathy from taking Katie's perspective. Furthermore, when subjects were asked to remain objective, they reported suppressing their emotions more, indicating that their default reaction was to empathize and they had to actively down-regulate their empathic concern.

Although we replicated past research with respect to empathic concern, we did not replicate past research with respect to helping. In fact, there were no differences in helping across conditions. Perhaps the lack of differences in helping were due to differences in our subject pool, or perhaps in the Katie Banks experiment the effects on empathic concern are more stable than the effects on helping. We return to this point in the discussion.

General Discussion

In three experiments, we tested the effect of perspective taking on empathy. We argued that two pieces of evidence are needed to demonstrate that perspective taking increases empathy. First, a perspective taking intervention should make people empathize more than they would by default, so we compared a perspective taking intervention to no intervention. Second, the perspective taking intervention should make people empathize more because of perspective taking, and not because of some other feature of the intervention, so we compared the perspective taking intervention to the commonly used objective intervention, which presumably resembles the perspective taking intervention but without the perspective taking.

How much evidence did we find that perspective taking makes people empathize more than they would by default? Very little. Across the three studies, there were no significant differences between subjects who took someone's perspective and subjects who received no intervention in how much they felt empathic sadness (Study

1), empathic anger (Study 2), sympathy (Studies 1 and 2), or empathic concern (Study 3). Subjects' empathized no more when they took the targets' perspectives than when they were simply exposed to the targets' experiences.

One might argue that subjects in the no intervention condition spontaneously took the target's perspective, and that's why they empathized just as much as those in the perspective taking condition. Indeed, Davis and colleagues (2004) raised this possibility in a study that compared subjects' written thoughts when they took a target's perspective (either by imagining how the target felt or by imagining how they would feel in the target's place), were asked to remain objective, or received no intervention. They coded how many self-related, target-related, or distancing thoughts the subjects wrote. They suggested that the no intervention condition was most similar to imagining how the target feels, because there were no significant differences between the two conditions in target-related or distancing thoughts. But what made these conditions most similar to each other wasn't the presence of target-related thoughts—subjects in the objective condition had just as many—it was the absence of distancing thoughts, which were more common in the objective condition.

So, what of the evidence that perspective taking makes people empathize more than the objective intervention? All three studies found that subjects in the perspective taking condition empathized more than those in the objective condition, and therefore replicated the results of more than half of the comparisons from previous research.

However, this was not due to increases in empathy in the perspective taking condition. Instead, it was due to decreases in empathy in the objective condition. Furthermore, in Study 3, subjects reported suppressing their emotions more in the objective condition than in the other two conditions. This is consistent with Davis and colleagues' (2004) finding that the objective intervention involves more distancing thoughts, not fewer target-related thoughts, and it reinforces the point the objective intervention is not just an absence of perspective taking, but the presence of emotion down-regulation. Because subjects were down-regulating their emotions in the objective condition, it is impossible to tell whether perspective taking truly caused differences in empathy at all. The results of the three studies highlight limitations of the evidence that perspective taking increases empathy, and they call into question the first stage in Coke and colleagues' (1978) two-stage model of helping, which predicts that taking the perspective of someone in need increases empathy.

Although this wasn't the main topic of the present research, in Study 3 we were also able to test the second stage in the model, which predicts that empathy increases helping. We successfully manipulated empathy by replicating the effect of the perspective taking vs. objective conditions on empathic concern; however, we did not replicate the effect of empathy on helping. This non-replication could be due to sampling error, or due to some nuance of our subject pool. It's also possible that differences in helping in the Katie Banks experiment are less reliable than the

differences in empathy. Indeed, several studies using this experiment found no simple effect of the perspective interventions on helping (Davis, 1983a; Graziano et al., 2007; Maner et al., 2002; Myers et al., 2014).

Regardless of whether the Katie Banks experiment produces differences in helping or not, the effects of perspective taking on empathy must be considered separately from the effects of empathy on helping. The results of the present research call into question whether perspective taking increases empathy; but they do find that perspective taking vs. objective interventions can *manipulate* empathy.

When the research is about the effect of *empathy* on another outcome, such as the effect of empathy on altruism (e.g., Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Batson et al., 1991), these conditions work perfectly fine as a manipulation of empathy, even if the differences are due to decreases in the objective condition rather than increases in the perspective taking condition. But when the research is about the effect of *perspective taking* on another outcome, such as the effect of perspective taking on empathy, then using these conditions is a problem, because it is unclear whether the effects are driven by perspective taking, remaining objective, or both. Unfortunately, because researchers have assumed that the key difference between the conditions is the presence of perspective taking, they have been used to study the effects of perspective taking on other outcomes such as stereotyping (Ku, Wang, & Galinsky, 2010; Skorinko & Sinclair, 2013; Todd, Bodenhausen, & Galinsky, 2012; Vescio et al., 2003), prejudice

(Vorauer & Sasaki, 2009), retributive justice (van Prooijen & Coffeng, 2013), and the self-concept (Uchrowski, Abele, & Bruckmüller, 2013). If the hope is that perspective taking can be used as an intervention to increase desirable outcomes, then there is a problem with using these conditions to test it. It's possible that the researchers are merely increasing undesirable outcomes—instead of reducing prejudice in the perspective taking condition, perhaps researchers are increasing it in the objective condition.

In the present paper and in the broader literature, we find little evidence that perspective taking boosts empathy. These results are in line with recent work suggesting that perspective taking does not make people better at understanding others' mental states, which is considered by some to be another component of empathy. In 25 experiments, Eyal, Steffal, and Epley (2018) found that when people were asked to take someone else's perspective, they were no better at understanding others' mental states. What did make them better? Getting new information by talking to the other person directly.

Similarly, taking someone else's perspective might not help people empathize more because it doesn't give them new information that could change how they feel. Instead, increasing empathy might require getting someone else's perspective through direct conversation, or through other immersive or directed experiences that are likely to bring new and relevant information to mind. For example, some researchers have become interested in whether virtual reality can be used to increase empathy (e.g., Ahn,

Le, & Bailenson, 2013; Schutte & Stilić, 2017). Such interventions are likely to be most effective when they provide information about an experience that people are unable to observe directly and are unlikely to imagine on their own.

Alternatively, when people are asked to simply take someone else's perspective, it might not increase empathy because it's unclear *how* their initial perspective should change. It might be more effective to direct people to change their initial perspective on another's situation in specific ways. Future research could investigate this possibility by looking to appraisal theory (Ellsworth & Scherer, 2003; Wondra & Ellsworth, 2015), and explore how directing an observer's appraisals such as the pleasantness, causal agency, or controllability of the situation could increase empathy. Such an approach would be most effective if it targeted the appraisals that are most likely mis-aligned with the target's appraisals of their own situation.

In the meantime, in contrast to conventional wisdom, it cannot be taken for granted that perspective taking is an effective way to increase empathy. The empirical evidence that perspective taking increases empathy is limited, and more research is needed to determine whether, when, and how perspective taking increases empathy.

References

- Ahn, S. J. G., Le, A. M. T., & Bailenson, J. (2013). The effect of embodied experiences on self-other merging, attitude, and helping behavior. *Media Psychology, 16*, 7–38.
<http://doi.org/10.1177/0093650208330254>
- Batson, C. D. (2009). Two forms of perspective taking: Imagining how another feels and imagining how you would feel. In K. D. Markman, W. M. P. Klein, & J. A. Suhr (Eds.), *Handbook of imagination and mental simulation* (pp. 267-279). New York, NY: Psychology Press.
- Batson, C. D., Batson, J. G., Slingsby, J. K., Harrell, K. L., Peekna, H. M., & Todd, R. M. (1991). Empathic joy and the empathy-altruism hypothesis. *Journal of Personality and Social Psychology, 61*, 413–426. <http://doi.org/10.1037/0022-3514.61.3.413>
- Batson, C. D., Chang, J., Orr, R., & Rowland, J. (2002). Empathy, attitudes, and action: Can feeling for a member of a stigmatized group motivate one to help the group? *Personality and Social Psychology Bulletin, 28*, 1656–1666. doi:
<http://doi.org/10.1177/014616702237647>
- Batson, C. D., Duncan, B. D., Ackerman, P., Buckley, T., & Birch, K. (1981). Is empathic emotion a source of altruistic motivation? *Journal of Personality and Social Psychology, 40*, 290–302. <http://doi.org/10.1037/0022-3514.40.2.290>

- Batson, C. D., Early, S., & Salvarani, G. (1997). Perspective taking: Imagining how another feels versus imagining how you would feel. *Personality and Social Psychology Bulletin*, 23, 751-758. <http://doi.org/10.1177/0146167297237008>
- Batson, C. D., Eklund, J. H., Chermok, V. L., Hoyt, J. L., & Ortiz, B. G. (2007). An additional antecedent of empathic concern: Valuing the welfare of the person in need. *Journal of Personality and Social Psychology*, 93, 65–74. doi: <http://doi.org/10.1037/0022-3514.93.1.65>
- Batson, C. D., Kennedy, C. L., Nord, L.-A., Stocks, E. L., Fleming, D. A., Marzette, C. M., . . . Zenger, T. (2007). Anger at unfairness: Is it moral outrage? *European Journal of Social Psychology*, 37, 1272–1285. doi: <http://doi.org/10.1002/ejsp.434>
- Baumeister, R. F., Masicampo, E. J., & DeWall, C. N. (2009). Prosocial benefits of feeling free: Disbelief in free will increases aggression and reduces helpfulness. *Personality and Social Psychology Bulletin*, 35, 260–268. [http://doi.org/10.1016/0022-1031\(75\)90004-9](http://doi.org/10.1016/0022-1031(75)90004-9)
- Bernhardt, B. C., & Singer, T. (2012). The neural basis of empathy. *Annual Review of Neuroscience*, 35, 1–23. <http://doi.org/10.1146/annurev-neuro-062111-150536>
- Bloom, P. (2016). Empathy and Its Discontents. *Trends in Cognitive Sciences*, 1–8. <http://doi.org/10.1016/j.tics.2016.11.004>

Coke, J. S., Batson, C. D., & McDavis, K. (1978). Empathic mediation of helping: A two-stage model. *Journal of Personality and Social Psychology*, 36, 752-766. doi:

<http://doi.org/10.1037/0022-3514.36.7.752>

Davis, M. H. (1980). A multidimensional approach to individual differences in empathy.

JSAS Catalog of Selected Documents in Psychology, 10, 85.

Davis, M. H. (1983a). The effects of dispositional empathy on emotional reactions and helping: A multidimensional approach. *Journal of Personality*, 51, 167-184. doi:

<http://doi.org/10.1111/j.1467-6494.1983.tb00860.x>

Davis, M. H. (1983b). Measuring individual differences in empathy: Evidence for a

multidimensional approach. *Journal of Personality and Social Psychology*, 44, 113-126. doi: <http://doi.org/10.1037/0022-3514.44.1.113>

Davis, M. H., Hull, J. G., Young, R. D., & Warren, G. G. (1987). Emotional reactions to dramatic film stimuli: The influence of cognitive and emotional empathy. *Journal of Personality and Social Psychology*, 52, 126-133.

Davis, M. H., Soderlund, T., Cole, J., Gadol, E., Kute, M., Myers, M., & Weihing, J.

(2004). Cognitions associated with attempts to empathize: How do we imagine the perspective of another? *Personality and Social Psychology Bulletin*, 30, 1625-1635. <http://doi.org/10.1177/0146167204271183>

Eisenberg, N., Shea, C. L., Carlo, G., & Knight, G. P. (1991). *Empathy-related responding and cognition: A "chicken and the egg" dilemma*. In W. M. Kurtines & J. L. Gewirtz

(Eds.), *Handbok of moral behavior and development* (pp. 63-88). Hillsdale, NJ:

Lawrence Erlbaum Associates, Inc.

Ellsworth, P. C., & Scherer, K. R. (2003). Appraisal processes in emotion. In R. J.

Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective sciences*

(pp. 572–595). New York, NY: Oxford University Press.

Eyal, T., Steffel, M., & Epley, N. (2018). Perspective mistaking: Accurately

understanding the mind of another requires getting perspective, not taking

perspective. *Journal of Personality and Social Psychology*, 114, 547–571.

<http://doi.org/10.1037/pspa0000115>

Feshbach, N. D. (1975). Empathy in children: Some theoretical and empirical

considerations. *The Counseling Psychologist*, 5, 25–30.

<http://doi.org/10.1177/001100007500500207>

Graziano, W. G., Habashi, M. M., Sheese, B. E., & Tobin, R. M. (2007). Agreeableness,

empathy, and helping: A person × situation perspective. *Journal of Personality and*

Social Psychology, 93, 583–599. doi: <http://doi.org/10.1037/0022-3514.93.4.583>

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation

processes: Implications for affect, relationships, and well-being. *Journal of*

Personality and Social Psychology, 85, 348–362. [http://doi.org/10.1037/0022-](http://doi.org/10.1037/0022-3514.85.2.348)

3514.85.2.348

Hoffman, M. L. (2000). *Empathy and moral development: Implications for caring and justice*.

New York, NY: Cambridge University Press.

<http://doi.org/10.1017/CBO9780511805851>

Kross, E., & Ayduk, O. (2011). Making meaning out of negative experiences by self-distancing. *Current Directions in Psychological Science*, 20, 187-191. doi:

<http://doi.org/10.1177/0963721411408883>

Ku, G., Wang, C. S., & Galinsky, A. D. (2010). Perception through a perspective-taking lens: Differential effects on judgment and behavior. *Journal of Experimental Social Psychology*, 46, 792-798. doi: <http://doi.org/10.1016/j.jesp.2010.04.001>

Maner, J. K., Luce, C. L., Neuberg, S. L., Cialdini, R. B., Brown, S., & Sagarin, B. J. (2002). The effects of perspective taking on motivations for helping: Still no evidence for altruism. *Personality and Social Psychology Bulletin*, 28, 1601-1610. doi:

<http://doi.org/10.1177/014616702237586>

Marsh, A. A., Kozak, M. N., & Ambady, N. (2007). Accurate identification of fear facial expressions predicts prosocial behavior. *Emotion*, 7, 239-251. doi:

<http://doi.org/10.1037/1528-3542.7.2.239>

Mischkowski, D., Kross, E., & Bushman, B. J. (2012). Flies on the wall are less aggressive:

Self-distancing “in the heat of the moment” reduces aggressive thoughts, angry feelings and aggressive behavior. *Journal of Experimental Social Psychology*, 48,

1187-1191. <http://doi.org/10.1016/j.jesp.2012.03.012>

- Myers, M. W., Laurent, S. M., & Hodges, S. D. (2014). Perspective taking instructions and self-other overlap: Different motives for helping. *Motivation and Emotion*, 38, 224–234. <http://doi.org/10.1086/651257>
- Schutte, N. S., & Stolinovic, E. J. (2017). Facilitating empathy through virtual reality. *Motivation and Emotion*, 41, 708–712. <http://doi.org/10.1007/s11031-017-9641-7>
- Skorinko, J. L., & Sinclair, S. A. (2013). Perspective taking can increase stereotyping: The role of apparent stereotype confirmation. *Journal of Experimental Social Psychology*, 49, 10–18. <http://doi.org/10.1016/j.jesp.2012.07.009>
- Smith, A. (1759/2002). *The theory of moral sentiments*. New York NY: Cambridge University Press. (Original work published 1759). <http://doi.org/10.1017/CBO9780511800153>
- Stocks, E. L., Lishner, D. A., & Decker, S. K. (2009). Altruism or psychological escape: Why does empathy promote prosocial behavior? *European Journal of Social Psychology*, 39, 649–665. http://doi.org/10.1207/s15327965pli0202_15
- Todd, A. R., Bodenhausen, G. V., & Galinsky, A. D. (2012). Perspective taking combats the denial of intergroup discrimination. *Journal of Experimental Social Psychology*, 48, 738–745. <http://doi.org/10.1016/j.jesp.2011.12.011>
- Uchrowski, M., Abele, A. E., & Bruckmüller, S. (2013). Empathic perspective taking and the situational malleability of the communal self-concept. *Self and Identity*, 12, 238–258. <http://doi.org/10.1080/15298868.2012.655896>

van Prooijen, J.-W., & Coffeng, J. (2013). What is fair punishment for Alex or Ahmed?

Perspective taking increases racial bias in retributive justice judgments. *Social Justice Research*, 26, 383–399. <http://doi.org/10.1111/j.1467-9280.2009.02265.x>

Vescio, T. K., Sechrist, G. B., & Paolucci, M. P. (2003). Perspective taking and prejudice reduction: The mediational role of empathy arousal and situational attributions.

European Journal of Social Psychology, 33, 455–472. doi:

<http://doi.org/10.1002/ejsp.163>

Vorauer, J. D., & Sasaki, S. J. (2009). Helpful only in the abstract? Ironic effects of empathy in intergroup interaction. *Psychological Science*, 20, 191–197. doi:

<http://doi.org/10.1111/j.1467-9280.2009.02265.x>

Wondra, J. D., & Ellsworth, P. C. (2015). An appraisal theory of empathy and other vicarious emotional experiences. *Psychological Review*, 122, 411–428. doi:

<http://doi.org/10.1037/a0039252>

Wright, R. A., Shaw, L. L., & Jones, C. R. (1990). Task demand and cardiovascular response magnitude: Further evidence of the mediating role of success

importance. *Journal of Personality and Social Psychology*, 59, 1250–1260.

<http://doi.org/10.1037/0022-3514.59.6.1250>