

Addressing the Empathy Deficit: Beliefs About the Malleability of Empathy Predict Effortful Responses When Empathy Is Challenging

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Empathy is often thought to occur automatically. Yet, empathy frequently breaks down when it is difficult or distressing to relate to people in need, suggesting that empathy is often not felt reflexively. Indeed, the United States as a whole is said to be displaying an empathy deficit. When and why does empathy break down, and what predicts whether people will exert effort to experience empathy in challenging contexts? Across 7 studies, we found that people who held a malleable mindset about empathy (believing empathy can be developed) expended greater empathic effort in challenging contexts than did people who held a fixed theory (believing empathy cannot be developed). Specifically, a malleable theory of empathy—whether measured or experimentally induced—promoted (a) more self-reported effort to feel empathy when it is challenging (Study 1); (b) more empathically effortful responses to a person with conflicting views on personally important sociopolitical issues (Studies 2–4); (c) more time spent listening to the emotional personal story of a racial outgroup member (Study 5); and (d) greater willingness to help cancer patients in effortful, face-to-face ways (Study 6). Study 7 revealed a possible reason for this greater empathic effort in challenging contexts: a stronger interest in improving one's empathy. Together, these data suggest that people's mindsets powerfully affect whether they exert effort to empathize when it is needed most, and these data may represent a point of leverage in increasing empathic behaviors on a broad scale.

Keywords: empathy, lay theories, conflict resolution, intergroup relations, altruism

The biggest deficit that we have in our society and in the world right now is an empathy deficit.

—Barack Obama, 2006

For over a decade, President Obama has urged Americans to cultivate a sense of empathy. He argues that we currently suffer from an empathy deficit—a widespread inability to stand in someone else's shoes and see the world through their eyes. He has even characterized this empathy deficit as a more pressing problem than the very large federal deficit.¹

A recent meta-analytic examination of American college students suggests that Obama's description of an empathy deficit may reflect real changes in our culture (Konrath, O'Brien, & Hsing, 2011; see also Twenge, Campbell, & Freeman, 2012). This analysis of 72 samples showed that self-reported empathy has declined over the last 30 years, and the decline is substantial: Between 1979 and 2009, scores on both the affective (i.e., emotional sharing and responding) and cognitive (i.e., understanding perspectives and

emotions) subcomponents of empathy have decreased by 48% and 34%, respectively.

This observed decline in empathy runs counter to many popular theories of empathy, which suggest that empathy—especially the affective component of empathy—is largely automatic and innate (e.g., Gallese, 2003; Hatfield, Cacioppo, & Rapson, 1994; Hoffman, 1984; Preston & de Waal, 2002; Smith, 1790/2002) and thus should not be susceptible to large-scale change over time. This view of empathy as automatic dominated early philosophical thinking (Lipps, 1903; Smith, 1790/2002; Vischer, 1873) and features heavily in contemporary models from a variety of psychological sub-disciplines. For example, developmental psychologists highlight the innate and primitive nature of vicarious experience (Bernieri, Reznick, & Rosenthal, 1988; Eisenberg, 1989), as reflected in the tendency for newborns to mimic their mother's facial experiences and cry in response to other infants' cries (Haviland & Lelwica, 1987). Similarly, social psychologists find support for *emotional contagion* (e.g., Neumann & Strack, 2000; Wild, Erb, & Bartels, 2001), the tendency for people to “automatically mimic and synchronize facial expressions, vocalizations, postures, and movements with those of another person, and, consequently, to converge emotionally” (Hatfield et al., 1994, p. 5). Ethologists likewise describe the sharing of other's motor, mental, and emotional states as an automatic and adaptive mechanism that has been preserved to help members of social species attain their shared goals (Preston & de Waal, 2002; Seyfarth & Cheney, 2013).

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¹ See cultureofempathy.com for an extensive collection of Obama's statements on empathy.

Further, individual difference researchers typically assess empathy with measures that tap a hard-wired-like susceptibility to emotional cues (e.g., Emotion Contagion Scale; Doherty, 1997) or stable tendencies to experience empathy for others (e.g., Interpersonal Reactivity Index; Davis, 1980). Consistent with this view of empathy as hard-wired, some research suggests that sharing others' states is at least partly heritable (e.g., Knafo, Zahn-Waxler, Van Hulle, Robinson, & Rhee, 2008).

Finally, though already popular, the view that empathy is largely automatic received converging physiological support following the discovery of "mirror neurons" in macaque monkeys, which fire in response to both their own actions and intentions and to the actions and intentions of others (Ferrari, Gallese, Rizzolatti, & Fogassi, 2003; Rizzolatti & Craighero, 2004). These mirror neurons often seem to respond reflexively. In humans, for example, engagement of mirror properties occurs even when observers are put under cognitive load (Spunt & Lieberman, 2013) or are not explicitly instructed to attend to the target (Iacoboni et al., 2005). Several neuroscientists therefore view mirror properties as part of the foundation for empathy, allowing for reflexive, non-effortful experience sharing (e.g., Gallese, 2003; Iacoboni, 2009). Representing this perspective, Gallese (2003) stated that the "implicit, automatic, and unconscious process of embodied simulation enables the observer to use his/her own resources to penetrate the world of the other without the need of explicitly theorizing about it" (p. 174, emphasis in original).

Thus, across a variety of fields, scientists have found support for their view that empathy—and especially the vicarious sharing of others' states—often occurs automatically. However, these automatic models do not provide a full account of empathic processes (Zaki, 2014). Rather than reflexively feeling empathy during every social encounter, people's experience of empathy is highly varied and context-dependent. In fact, empathy has been shown to break down in contexts where it is difficult or painful to relate to social targets, such as when people feel dissimilar to the target (e.g., Mitchell, Macrae, & Banaji, 2006; Xu, Zuo, Wang, & Han, 2009) or when they believe that empathizing will cause them personal distress and discomfort (e.g., Davis et al., 1999; Pancer, 1988). These types of situational fluctuations suggest that empathy is often challenging and not felt reflexively.

We propose that when faced with such empathic challenges, people can either disengage from the situation or expend empathic effort. We define *empathic effort* as a willingness to invest time or energy in feeling empathy, and we argue that people can modulate their empathy experience by amplifying the amount of effort they exert. For example, they might choose to spend more time with the target, ask questions or listen to the target to increase their understanding of the target's emotions and perspective, or consciously try to put themselves in the target's "shoes" so that they may come to share the target's physiological or affective states.

These types of effortful attempts to turn up one's empathy might help people overcome a lack of "automatic" empathy in challenging situations. Empathic effort might thus be exactly what is needed in situations where empathy is difficult to experience yet important to positive social outcomes, such as in conflict, intergroup, or helping contexts. But how can we predict when people will rise to or shrink from such empathic challenges? Here, we use mindsets of empathy—people's beliefs regarding the malleability

of empathy—as a tool for illuminating when people will and will not expend effort to feel empathy for others.

Mindsets of Empathy and Empathic Effort

Past research indicates that mindsets play a powerful role in whether people will exert effort when faced with challenges. People differ in their mindsets regarding the malleability of important attributes, such as personality and intelligence (Chiu, Hong, & Dweck, 1997; Dweck, 1996). These mindsets lie along a continuum, anchored at one end by an *entity* or *fixed theory* (e.g., we cannot develop our intelligence) and at the other by an *incremental* or *malleable theory* (e.g., we can develop our intelligence). Within these two mindsets, challenge takes on very different meanings. For people with a fixed theory, challenge signals low ability, and because they believe attributes are fixed, this low ability cannot be developed (Dweck & Leggett, 1988; Mangels, Butterfield, Lamb, Good, & Dweck, 2006). These people therefore tend to seek out activities or situations that confirm their ability, and disengage from activities or situations that challenge their ability. For example, people with a fixed theory of intelligence tend to avoid challenging tasks that carry the potential for poor performance and persist less in the face of difficulty or failure (Dweck & Leggett, 1988; Heine et al., 2001; Hong, Chiu, Dweck, Lin, & Wan, 1999; Mueller & Dweck, 1998; for examples of this tendency in other domains, see also Beer, 2002; Carr, Dweck, & Pauker, 2012; Kammrath & Dweck, 2006; Rattan & Dweck, 2010).

For someone with a malleable theory, however, challenge signals an opportunity to improve upon one's current limitations (Heine et al., 2001; Hong et al., 1999; Mueller & Dweck, 1998; see also Carr et al., 2012). These people therefore tend to engage in behaviors that will help them develop their abilities, such as approaching or persisting at challenging tasks and expending effort to improve (Beer, 2002; Carr et al., 2012; Heine et al., 2001; Hong et al., 1999; Mueller & Dweck, 1998; Nussbaum & Dweck, 2008).

Like mindsets of other important attributes, we propose that people also differ in their mindsets of empathy, with some holding a fixed theory and others holding a malleable theory. Whereas individuals who hold a more fixed theory of empathy believe that people have dispositional levels of empathy that cannot be changed, individuals who hold a more malleable theory of empathy believe that people can develop their empathy.

We posit that these mindsets of empathy play an important role in how people respond to empathic challenges and thus can help us understand when people will go the extra mile to feel empathy for others. People are generally motivated to be empathic (see Pilot Study 2). When faced with barriers to feeling empathy, people might feel that their empathic abilities are being challenged. To the extent that people with a fixed theory believe empathy is inherent and unchangeable, empathic challenges might call into question their "stable" empathic abilities and conflict with their motivation to be an empathic person. They should therefore feel motivated to disengage from situations where empathy is difficult for them to experience.

By contrast, because people with a malleable theory believe empathy can be developed, they should feel less threatened by perceiving that their empathic abilities are being challenged. When confronted with situations in which empathy is difficult for them to

experience, they can attempt to overcome these challenges by expending effort. We therefore predict that people with a malleable, compared to fixed, theory of empathy will expend more empathic effort in challenging empathy situations. We anticipate that theories of empathy will matter most when empathy is challenging (i.e., in situations where people feel that it is difficult or costly to understand and relate to others), because these are the contexts in which effort is needed and which carry the risk of empathic “failure.” In this way, we hope to better understand the issue of when and why empathy fails and what can be done about it.

Research Overview

In seven studies, we examined whether people’s mindsets of empathy predict the amount of empathic effort they expend when faced with empathic challenges. Along the way, we both measured and experimentally varied theories of empathy, and operationalized empathic challenge in a variety of ways. We also developed novel measures of empathic effort that tap a fundamentally new approach in empathy research. Further, as noted earlier, empathy is a multifaceted construct that has both affective and cognitive components (Davis, 1980; Zaki & Ochsner, 2012). As such, we examine the effects of theories of empathy on both of these empathic components across our studies. For example, in Study 1 we assessed empathic effort using both affective items (e.g., “I try to feel what they’re feeling”) and cognitive items (e.g., “I try to see things from their perspective”). Despite this methodological diversity, our predictions were simple and constant: in all studies, we hypothesized that people with a malleable, as opposed to fixed, theory of empathy would be more likely to expend empathic effort in challenging contexts.

In Study 1, we examined correlations between participants’ theories of empathy and self-reported attempts to feel empathy when empathy is more versus less challenging. Then, in the next five studies, we tested our hypothesis in three contexts in which empathy is both challenging and crucial to positive social outcomes. Specifically, in Study 2, we examined whether participants’ theories of empathy were associated with greater willingness to invest empathic effort toward a person with opposing views on personally important political and social issues. In Study 3, we added a non-challenging disagreement condition and replicated the association between theories of empathy and empathic effort only in the challenging disagreement condition. In Study 4, we tested the causal influence of theories of empathy in this disagreement context by inducing either a fixed or malleable theory of empathy. In Study 5, we examined whether people induced to have a malleable, as opposed to fixed, theory of empathy would exert more empathic effort toward a dissimilar other (i.e., in an interracial context). Then, in Study 6, we examined whether people induced to have a malleable, as opposed to fixed, theory of empathy would exert more empathic effort when empathizing with others is potentially distressing (i.e., as with cancer patients).

In a final study, we delved more deeply into the psychology underlying the observed effects by testing whether people with a malleable, as opposed to fixed, theory of empathy might expend more empathic effort as a means of developing their empathic abilities. We induced either a fixed or malleable theory of empathy and varied the presence of an empathic challenge by giving people

either success or failure feedback on an empathy aptitude test. We examined whether a malleable (vs. fixed) theory would motivate people to try to improve their empathic abilities following the challenging failure feedback.

Our central prediction—that people with a malleable, compared to fixed, theory of empathy will exert more empathic effort in challenging contexts—requires that two preconditions be met. First, people must vary in their beliefs about the malleability of empathy, ranging from relatively fixed to malleable theories. Second, regardless of their beliefs about the malleability of empathy, people must be motivated to be empathic. That is, for people to expend empathic effort, they must want to feel empathy for others. Thus, before presenting our main studies, we present two pilot studies in which we tested these preconditions.

Pilot Study 1: Do People Vary in Their Mindsets of Empathy?

Before investigating whether theories of empathy predict empathic effort, we first sought to establish that people differ in their mindsets of empathy. Based on the relatively equal proportion of people endorsing fixed versus malleable theories of other attributes (e.g., Dweck & Molden, 2005), we expected similar proportions of people to espouse the two different theories of empathy.

Method

Participants. We recruited 78 American participants (42 women, 35 men, 1 unspecified; $M_{\text{age}} = 34.75$ years, $SD = 12.67$) through Amazon Mechanical Turk (see Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2010). Three participants were dropped from analyses for failing a red herring question designed to catch false responding (“for this question, please answer ‘strongly disagree’”), leaving a sample of 75 participants (40 women, 34 men, 1 unspecified; $M_{\text{age}} = 35.33$ years, $SD = 12.59$).

Materials and procedure. Participants read a statement describing a fixed theory of empathy (“In general, people cannot change how empathic a person they are”) as well as a statement describing a malleable theory of empathy (“In general, people can change how empathic a person they are”). They then selected the statement that most closely represented their opinion.

Results

As expected, both theories of empathy were endorsed with considerable frequency, $\chi^2(1) = 1.08, p = .30, \Phi = .12$. The fixed theory of empathy statement was selected by 44% of participants, and the malleable theory of empathy statement was selected by 56% of participants. People thus naturally vary in their beliefs about the malleability of empathy.

Pilot Study 2: Do People Want to be Empathic?

Are people motivated to feel empathy for others? Because feeling empathy for others can be costly and distressing, people may not be particularly motivated to be empathic. We therefore examined whether people generally want to be empathic toward others. In addition, to rule out the possibility that people with fixed versus malleable theories of empathy are differentially motivated

to feel empathy, we tested the association between people's theories of empathy and their general motivation to feel empathy.

Method

Participants. We recruited 78 American participants (46 women, 32 men; $M_{\text{age}} = 32.32$ years, $SD = 12.67$) through Amazon Mechanical Turk. Two participants were dropped from analyses for failing a red herring question designed to catch false responding, leaving a sample of 76 participants (44 women, 32 men; $M_{\text{age}} = 33.66$ years, $SD = 12.29$).

Materials and procedure.

Theories of empathy. To develop a more sensitive measure of theories of empathy, we adapted a six-item measure from an existing measure of implicit theories of personality (Dweck, Chiu, & Hong, 1995). On a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*), participants responded to three statements indicating that a person's level of empathy is fixed (e.g., "Whether a person is empathic or not is deeply ingrained in their personality. It cannot be changed very much"), followed by three statements indicating that a person's level of empathy is malleable (e.g., "No matter who somebody is, they can always change how empathic a person they are"). We present the full measure in Appendix A. The three "malleable" items were averaged with the three "fixed" items (reverse-coded) to create a measure of theories of empathy, with higher scores on this measure indicating a more malleable view of empathy. An analysis of internal consistency revealed that the scale was highly reliable ($\alpha = .94$; $M = 3.84$, $SD = 1.53$). Here, and in all studies using this measure, all six items loaded onto a single factor; removal of any item from the scale did not improve its reliability.

Motivation to feel empathy. We assessed participants' motivation to feel empathy for two reasons: (1) to determine whether people are generally motivated to feel empathy for others, and (2) to ensure that people with different theories of empathy do not differ in their motivation to feel empathy for others.

Participants responded to nine items on a 7-point agreement scale (1 = *strongly disagree*, 7 = *strongly agree*). Six items were combined to create a reliable composite ($\alpha = .80$) of motivation to feel empathy for others (e.g., "I want to be an empathic person"; "I feel good about myself when I feel empathy for others"). Three additional items assessed negative aspects of feeling empathy: "Feeling empathy for others is not a good thing"; "Feeling empathy for others can be scary"; "I suffer from feeling empathy for others." These items were assessed individually due to low internal consistency ($\alpha = .63$).

Results

Motivation to feel empathy. Participants indicated a high motivation to feel empathy for others. Participants endorsed the motivation to feel empathy composite ($M = 5.17$, $SD = 1.01$) significantly more than "feeling empathy for others is not a good thing" ($M = 1.92$, $SD = 1.23$), $t(75) = 16.70$, $p < .001$, $d = 3.86$; "feeling empathy for others is scary" ($M = 3.03$, $SD = 1.85$), $t(75) = 8.80$, $p < .001$, $d = 2.03$; and "I suffer from feeling empathy for others" ($M = 3.75$, $SD = 1.81$), $t(75) = 6.91$, $p < .001$, $d = 1.60$. These findings suggest that, at a general level, people are motivated to be empathic toward others.² Given that

people want to be empathic, we propose that a malleable theory of empathy can help them invest the effort needed to feel empathy when empathy is challenging.

Associations with theories of empathy. Importantly, the theories of empathy scale was uncorrelated with the motivation to feel empathy composite ($r = -.05$, $p = .70$), "feeling empathy for others is not a good thing" ($r = -.09$, $p = .43$), "feeling empathy for others is scary" ($r = .04$, $p = .73$), and "I suffer from feeling empathy for others" ($r = -.08$, $p = .49$).³ This finding suggests that people holding fixed versus malleable theories of empathy were equally positive about being empathic. The effects that we present in the forthcoming studies thus likely cannot be attributed to people with fixed versus malleable theories being differentially motivated to feel empathy.

Study 1: Do Theories of Empathy Predict Self-Reported Empathic Effort?

In Study 1, we conducted an initial test of our hypothesis by examining correlations between people's theories of empathy and self-reported empathic effort. We assessed self-reported empathic effort in two ways. First, we obtained participants' reports of how much effort they typically expend in specific contexts that are more versus less empathically challenging. Recall that we expected theories of empathy to matter most when empathy is challenging (i.e., when people perceive that the demands of the situation test and may exceed their current empathic abilities). We therefore tested whether theories of empathy would be more strongly associated with self-reported efforts to feel empathy in the contexts presenting greater empathic challenge. Second, to assess how people's theories of empathy relate to how they respond when empathy is not likely to be felt "reflexively," we obtained participants' self-reports of how much they typically persist in trying to experience empathy when it is not felt immediately.

Method

Participants. We recruited 112 students⁴ (79 women, 33 men; $M_{\text{age}} = 23.38$ years, $SD = 7.24$) in exchange for either two snacks of their choice (e.g., chocolate bar, drink, pack of gum) or course credit. Three participants were dropped from analyses for using response sets (e.g., responding with "7" on all items), leaving a

² In an additional pilot study ($n = 80$), participants rated being "empathic" as important to being a good person ($M = 7.09$ out of 9, $SD = 1.46$), and they rated "understanding other people's emotions" ($M = 7.28$ out of 9, $SD = 1.47$) and "taking other people's perspectives" ($M = 7.50$ out of 9, $SD = 1.40$) as important to being a socially skilled person.

³ We acknowledge that the sample size used in this pilot study is too small to demonstrate that no association exists between theories of empathy and the items measuring motivation to feel empathy. However, the magnitude of the correlation coefficients (all $< .10$) suggests that any associations between these variables are small and likely not meaningful.

⁴ Participants were collected in two waves: 48 were first recruited from a student center at a Canadian university; at the request of reviewers, we extended the sample by collecting an additional 64 participants from an online subject pool at an American college. The results were the same across samples.

sample of 109 participants (78 women, 31 men; 18–52 years of age, $M = 23.46$, $SD = 7.32$).

Materials and procedure.

Theories of empathy and other individual difference measures. Participants were invited to complete a study on “personality and emotional understanding.” They first completed the six-item measure of theories of empathy ($\alpha = .90$) used in Pilot Study 2. Participants also completed the seven-item empathic concern subscale of the Interpersonal Reactivity Index (Davis, 1980), responding to all items on a 7-point scale (1 = *does not describe me very well*, 7 = *describes me very well*). This scale assesses chronic feelings of empathic concern for others (e.g., “I often have tender, concerned feelings for people less fortunate than me”). We included this measure to test whether theories of empathy predict unique variance in empathic effort, and to explore whether being low or high in dispositional empathy moderated the association between theories of empathy and self-reported empathic effort. Three negatively worded items from this subscale were reverse-coded and averaged with the remaining four items to create a reliable measure of empathic concern ($\alpha = .79$). To reduce participants’ focus on empathy, they also completed several other personality measures (e.g., the Ten-Item Personality Inventory; Gosling, Rentfrow, & Swann, 2003).

Self-reported empathic effort. To test our hypothesis that theories of empathy would matter when empathy is more (compared to less) challenging, participants indicated how much effort they put into being empathic across eight different contexts. Five of the contexts were designed to be situations in which it is relatively more challenging to feel empathy: (1) when they disagree with someone, (2) when someone different from them is suffering, (3) when someone they do not know is suffering, (4) when they are having a problem with someone, and (5) when they are negotiating with someone. These contexts were selected because they emphasize dissimilarities between the participant and the imagined empathy target (e.g., different personal characteristics, attitudes, or goals), and past research has demonstrated that people are less empathic toward dissimilar others (e.g., Batson, Duncan, Ackerman, Buckley, & Birch, 1981). The other three contexts were designed to be situations in which it is relatively less challenging to feel empathy due to similarities between the participant and the imagined empathy target: (1) when they agree with someone, (2) when someone similar to them is suffering, and (3) when someone they know is suffering. For each context, participants read the description of the context (e.g., “When I disagree with someone”) and then responded to six items assessing the amount of effort they typically exert in that context (e.g., I try to: “understand their emotions”; “put myself in their shoes”; “feel what they’re feeling”). Participants responded to each of the items on a 7-point scale (1 = *not at all true*, 7 = *exactly true*). Responses to the five more challenging contexts were averaged to create an index of empathic effort in more challenging contexts ($\alpha = .96$). Responses to the three less challenging contexts were averaged to create an index of empathic effort in less challenging contexts ($\alpha = .95$).

Self-reported empathic persistence. On a 7-point scale (1 = *not at all true*, 7 = *exactly true*), participants also responded to four items designed to assess persistence in trying to feel empathy when it is not immediately felt (e.g., “When I do not understand

someone’s feelings right away, I put effort into trying to understand them”). Two negatively worded items were reverse scored and averaged with the other two items to create a reliable measure of empathic persistence ($\alpha = .77$).

Results

To determine whether participants’ theories of empathy were associated with their reports of empathic effort, we examined the bivariate relations among measures. As predicted, a malleable theory of empathy was significantly associated with greater self-reported empathic effort in the more challenging contexts ($r = .39$, $p < .001$). A malleable theory of empathy was also associated with empathic effort in less challenging contexts ($r = .22$, $p = .02$). However, a test for the difference between these two correlations revealed that a more malleable theory of empathy shared a stronger association with empathic effort in more challenging contexts than with empathic effort in less challenging contexts (Steigers $z = 2.32$, $p = .02$; Hotelling–Williams $t = 2.38$, $p = .02$). A more malleable theory of empathy was also associated with greater self-reported empathic persistence when empathy is not immediately felt ($r = .31$, $p = .001$). These correlations provide initial evidence for the association between theories of empathy and a willingness to expend effort, particularly in challenging empathic contexts and when empathy is not felt reflexively.

A more malleable theory of empathy was positively associated with empathic concern ($r = .21$, $p = .03$)—a measure of dispositional tendencies to feel empathy for others in everyday life. Because of this correlation between theories of empathy and empathic concern, we tested associations with theories of empathy while partialling out participants’ trait levels of empathic concern. A malleable theory of empathy remained a significant positive predictor of empathic effort in the more challenging contexts ($r = .34$, $p < .001$) and empathic persistence ($r = .24$, $p = .01$), but no longer predicted empathic effort in the less challenging contexts ($r = .12$, $p = .23$).

We next assessed whether theories of empathy interacted with dispositional empathic concern to predict self-reported empathic effort or empathic persistence. No significant interaction effects emerged (all $ps > .15$).

Discussion

In this study, we found support for our hypothesis that theories of empathy would predict empathic effort when empathy is more versus less challenging. Participants holding a more malleable theory of empathy reported that they typically expend more empathic effort in contexts where empathy is challenging (e.g., when they disagree with someone) than do those holding a more fixed theory, and persist more in trying to feel empathy when they do not immediately feel it. These findings suggest that people’s mindsets of empathy may powerfully affect their empathic behavior, particularly when empathy is challenging and not felt reflexively. In the next five studies, we examined the effect of theories of empathy in contexts where empathy is challenging but important to positive outcomes. In Study 2, we tested whether a more malleable theory of empathy is associated with a greater willingness to expend empathic effort toward a person with sharply conflicting views on fundamental sociopolitical issues.

Study 2: Do Theories of Empathy Predict Empathic Effort in the Face of Conflict?

Empathy is considered a critical ingredient in conflict resolution, as it can foster mutual understanding and civility between opposing parties (Betancourt, 2004; de Wied, Branje, & Meeus, 2007; Kahn & Lawhorne, 2003; White, 1985). Several workshops even use empathy-oriented techniques to promote resolution of conflicts (see Kelman, 2005). However, empathy might be especially challenging to experience in conflict situations where you disagree with, feel different from, or even feel anger or hostility toward someone (e.g., Batson et al., 1981; McCullough, Worthington, & Rachal, 1997). Thus, in the current study, we investigated whether theories of empathy influence empathic effort in a challenging disagreement context. We measured theories of empathy and predicted that a more malleable theory of empathy would be associated with greater willingness to invest effort to empathize with a person who has opposing views on personally important sociopolitical issues.

Method

Participants. We recruited 61 American and Canadian participants (27 women, 34 men; $M_{\text{age}} = 28.66$ years, $SD = 9.18$) from Amazon Mechanical Turk to complete an online study in exchange for 50 cents.

Materials and procedure.

Theories of empathy and other individual difference measures. Participants were invited to take part in a study on “personality and attitudes.” As in Study 1, participants completed the six-item measure of theories of empathy ($\alpha = .94$). Participants also completed a seven-item measure of perceived empathic ability. We included this measure to explore whether perceiving oneself as low or high in empathic ability moderated the association between theories of empathy and empathic effort. On a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*), participants indicated the extent to which they perceived themselves as being skilled empathizers (e.g., “I am skilled at empathizing with other people”; “I am poor at understanding other people’s emotions” [R]; $\alpha = .87$). To reduce participants’ focus on empathy, participants also completed a 20-item version of the Big Five Inventory (John, Donahue, & Kentle, 1991), and the Rosenberg Self-Esteem Scale (Rosenberg, 1965).

Empathically effortful responses to disagreement. To create a disagreement context, participants read about five prominent political and social issues (e.g., whether taxes that fund education should be increased; whether same-sex marriage should be legal). For each issue, participants chose the side with which they agreed (e.g., *favor* tax increases that fund education or *oppose* tax increases that fund education) and indicated the importance of the issue to them personally (1 = *not at all*, 7 = *extremely*).

Participants then completed the measure of empathic effort. They were asked to rank the five issues in order of personal importance and think about the issue they ranked as most important. On average, participants rated their top-ranked issue as highly important to them ($M = 5.97$ out of 7, $SD = 1.31$). Two participants rated their most personally important issue as very low in personal importance (1 or 2 on a 7-point scale) and were thus excluded from analyses.⁵ Participants were then instructed to

imagine having a discussion with someone who holds the opposite opinion to them on this issue. On 7-point scales (1 = *very unlikely*, 7 = *extremely likely*), they rated how likely they would be to engage in various responses during this discussion. Ten items assessed empathically effortful responses to the dissenter (e.g., I would “try to understand their feelings regarding this issue”; “try to empathize with them”; “ignore what they have to say about this issue” [R]; “start an argument with them” [R]; $\alpha = .80$). To assess other possible responses to the dissenter, two additional items assessed assertion of conviction for one’s opinion (I would “defend my opinion firmly”; “try to convince them to change their opinion to match my own”; two items correlated at $.65$, $p < .001$). This conviction composite and the 10-item composite of empathically effortful responses were uncorrelated ($r = -.14$, $p = .28$).

Results

We first examined the bivariate relations among variables. As predicted, a malleable theory of empathy was significantly associated with more empathically effortful responses to disagreement ($r = .38$, $p = .003$). In addition, perceived empathic ability was associated with a malleable theory of empathy ($r = .31$, $p = .02$) and more empathically effortful responses to disagreement ($r = .40$, $p = .002$). Because of these associations, we examined the correlation between theories of empathy and empathically effortful responses to disagreement while partialling out perceived empathic ability. A malleable theory of empathy remained a significant positive predictor of empathically effortful responses to disagreement ($r = .30$, $p = .03$). Neither theories of empathy ($r = .12$, $p = .37$) nor perceived empathic ability ($r = -.05$, $p = .73$) were associated with the conviction composite.

We next assessed whether theories of empathy interacted with perceived empathic ability to predict empathically effortful or conviction responses to disagreement. There were no significant interaction effects (all $ps > .11$).

Discussion

Study 2 provides evidence for an association between theories of empathy and empathic effort in a challenging conflict context. We found that espousing a more malleable theory of empathy was associated with greater willingness to try to empathize (e.g., listen, try to understand, show respect) with someone who holds a conflicting view on a personally important social or political issue. However, because all participants imagined a disagreement over a personally important issue, this study only examined the association between theories of empathy and empathic effort in a challenging context, and did not contrast it to a less challenging context. In Study 3, we experimentally varied empathic challenge by randomly assigning half of participants to imagine a disagreement over a personally *important* issue, and the other half to imagine a disagreement over a personally *unimportant* issue. We reasoned that participants would experience greater difficulty when trying to understand or take the perspective of someone

⁵ Because we predict that a disagreement is only empathically challenging when it is over an issue that matters to the individual, here and in Studies 3–4, we exclude participants who do not meet the criteria of rating the disagreement issue as at least somewhat personally important.

holding the opposite position on an issue they care strongly about (relative to an issue they care little about). We thus expected theories of empathy to be associated with greater empathic effort, but only when imagining a conflict over a personally important sociopolitical issue.

Study 3: Does the Association Between Theories of Empathy and Empathic Effort During Conflict Depend on the Presence of Empathic Challenge?

In the present study, we extended Study 2 by adding a non-challenging disagreement condition in which participants responded to an imagined disagreement over a personally unimportant sociopolitical issue. Adding this condition allowed us to test our prediction that theories of empathy would more strongly predict empathic effort in challenging (relative to less challenging) contexts.

In this study we also examined whether the observed association between theories of empathy and empathic effort would persist when the concept of empathy had not been recently primed. In Studies 1 and 2, the concept of empathy had been made salient to participants when they completed empathy measures prior to completing the outcome measures of empathic effort. To rule out the possibility that this priming of empathy artificially increased the observed relations between variables, in the present study we first assessed empathic effort in the context of the sociopolitical disagreements and then measured theories of empathy.

Method

Participants. We recruited 115 participants (55 women, 59 men, 1 unspecified; $M_{\text{age}} = 35.23$ years, $SD = 12.37$) from Amazon Mechanical Turk to complete an online study in exchange for 40 cents. Five participants were excluded from analyses for failing to follow instructions (selecting as their most important issue one that they ranked as less personally important than their least important issue). These exclusions left a sample of 110 participants (54 women, 55 men, 1 unspecified; $M_{\text{age}} = 35.65$ years, $SD = 12.45$).

Materials and procedure.

Empathic challenge manipulation. As in Study 2, participants read about five prominent political and social issues, rated how important each issue was to them personally, and then ranked them in order of personal importance. They were then randomly assigned to imagine having a discussion with someone who holds the opposite opinion to them on either the issue they ranked as most personally important (more empathically challenging condition), or least personally important (less empathically challenging condition). One participant in the empathically challenging condition was excluded from analyses because they rated their most personally important issue as very low in personal importance (1 or 2 on a 7-point scale). Similarly, six participants in the less empathically challenging condition were excluded from analyses because they rated their least personally important issue as very high in personal importance (6 or 7 on a 7-point scale). Participants rated their top-ranked issue as significantly more important to them ($M = 6.07$, $SD = 1.10$) than their lowest-ranked issue ($M = 3.64$, $SD = 1.62$), $t(102) = 15.16$, $p < .001$, $d = 3.00$.

As in Study 2, participants next indicated how they would respond to the person with whom they disagreed. The 10 items

assessing empathically effortful responses were combined to create a reliable index ($\alpha = .85$). The two conviction items were also combined ($r = .44$, $p < .001$). As in Study 3, the conviction composite and composite of empathically effortful responses to disagreement were uncorrelated ($r = -.13$, $p = .19$).

Results

We predicted that participants with a more malleable theory of empathy would report more empathically effortful responses to disagreement, but only when in the empathically challenging disagreement condition. We tested this prediction by regressing participants' responses to disagreement on condition (0 = less empathically challenging condition, 1 = more empathically challenging condition), theories of empathy (centered around 0), and their interaction. This analysis revealed a marginal Condition \times Theories of Empathy interaction, $B = 0.30$, $SE = 0.17$, $t(102) = 1.80$, $p = .08$ (see Figure 1). Examination of the interaction revealed that having a more malleable theory of empathy was associated with more empathically effortful responses to disagreement among participants in the challenging (personally important issue) condition, $B = 0.30$, $SE = 0.13$, $t(102) = 2.39$, $p = .02$, but not among participants in the less challenging (personally unimportant issue) condition, $B = 0.002$, $SE = 0.11$, $t(102) = 0.02$, $p = .98$.

To test for effects on the conviction composite, we regressed participants' conviction scores on condition (0 = less empathically challenging condition, 1 = more empathically challenging condition), theories of empathy (centered around 0), and their interaction. This analysis revealed only a main effect of challenge condition, with participants reporting greater conviction when imagining a disagreement over their most personally important issue, $B = 1.27$, $SE = 0.27$, $t(101) = 4.66$, $p < .001$.

Discussion

In Study 3, we replicated the association found in Study 2 between theories of empathy and empathically effortful responses to disagreement, and we demonstrated that this association only exists in a challenging (personally important) disagreement context. We also found the predicted relation between these variables even when theories of empathy were assessed after the empathic

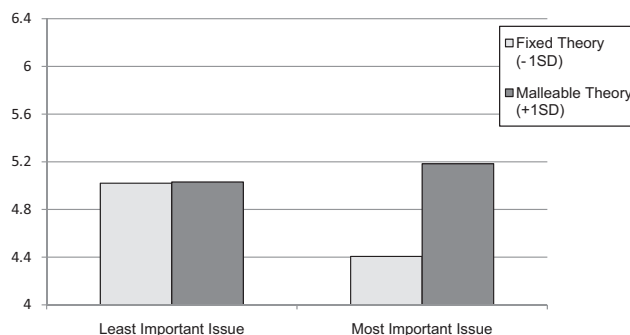


Figure 1. Mean estimates of effort to empathize with a person holding opposing views on sociopolitical issues as a function of theories of empathy and empathic challenge condition, Study 3.

effort outcome measures. This finding sheds doubt on the possibility that the observed associations between theories of empathy and empathic effort were caused by the priming of empathy concepts. To further rule out alternative explanations for these findings, in the next study, we used an experimental design to test the causal effect of a malleable versus fixed theory of empathy on empathically effortful responses to disagreement.

Study 4: Does a Malleable Theory Promote Empathic Effort in the Face of Conflict?

In Study 4, we experimentally induced either a fixed or malleable theory of empathy in participants. We then assessed whether a malleable theory of empathy would foster more empathically effortful responses to people who held fundamentally different views to their own on a personally important (vs. unimportant) issue, as in Study 3.

Method

Participants. We recruited 119 participants (57 women, 62 men; $M_{\text{age}} = 37.06$ years, $SD = 13.05$) from Amazon Mechanical Turk to complete an online study in exchange for 60 cents. Seven participants were excluded from analyses for failing to follow instructions (six for selecting as their most important issue one that they ranked as less personally important than their least important issue; one for not choosing a side for the sociopolitical issues), leaving a sample of 112 participants (54 women, 58 men; $M_{\text{age}} = 37.07$ years, $SD = 12.88$).

Materials and procedure.

Theory of empathy manipulation. Participants were invited to take part in an online study on “emotion and attitudes.” After providing consent, participants read an article that was ostensibly being pilot tested for a future study on empathy with high school students. Following the methods of past researchers (e.g., Chiu et al., 1997; Rattan & Dweck, 2010), we randomly assigned participants to read an article (authored by us, but presented to participants as an article from *Psychology Today*) that presented either a malleable (see Appendix B) or fixed (see Appendix C) theory of empathy. For example, the malleable theory article included quotations from experts arguing that empathy can be developed (e.g., “Empathy is changeable and can be influenced over time. Empathy is not stable over one’s lifetime. It can be developed and cultivated”). By contrast, experts in the fixed theory article argued that empathy is stable (e.g., “Empathy is rather fixed and develops consistently along the same path over time. Empathy might start out flexible, but after the early years, it appears to solidify into a cohesive empathy profile”). To uphold the cover story, participants rated the article’s grade-level appropriateness for high school students.

Empathic challenge manipulation. Next, participants were randomly assigned to imagine having a discussion with someone who holds the opposite opinion to them on either the issue they ranked as most personally important (more empathically challenging condition) or least personally important (less empathically challenging condition). Two participants in the more challenging condition and nine in the less challenging condition were excluded from analyses because they rated their issue as very low (1 or 2) or very high (6 or 7) in personal importance, respectively. Parti-

cipants rated their top-ranked issue as significantly more important to them ($M = 6.15$, $SD = 1.05$) than their lowest-ranked issue ($M = 3.74$, $SD = 1.33$), $t(100) = 15.80$, $p < .001$, $d = 3.16$. Participants next completed the measure of empathically effortful responses ($\alpha = .88$) and conviction ($r = .43$, $p < .001$), which were again uncorrelated with each other ($r = -.06$, $p = .56$).

Results

A 2 (fixed theory vs. malleable theory) \times 2 (less empathically challenging condition vs. more empathically challenging condition) analysis of variance (ANOVA) on empathically effortful responses to disagreement revealed an interaction, $F(1, 97) = 3.86$, $p = .05$, $\eta_p^2 = .04$ (see Figure 2). When participants imagined a disagreement over their most personally important issue, those induced to have a malleable theory of empathy indicated marginally more empathically effortful responses ($M = 5.26$, $SD = 1.15$) than did those induced to have a fixed theory of empathy ($M = 4.75$, $SD = 1.11$), $F(1, 97) = 3.04$, $p = .08$, $d = 0.45$. When participants imagined a disagreement over their least personally important issue, however, those induced to have a malleable theory of empathy did not differ in their responses ($M = 4.84$, $SD = 1.24$) from those induced to have a fixed theory of empathy ($M = 5.20$, $SD = 0.92$), $F(1, 97) = 1.18$, $p = .28$, $d = 0.33$. We therefore replicated the pattern of results found in Study 3, with a malleable theory of empathy promoting more empathically effortful responses to disagreement only in a challenging disagreement context.

A 2 (fixed theory vs. malleable theory) \times 2 (less empathically challenging condition vs. more empathically challenging condition) ANOVA on conviction scores revealed only a main effect of challenge condition, $F(1, 97) = 9.89$, $p < .001$, $\eta_p^2 = .09$. As in Study 3, participants who imagined a disagreement over a personally important issue reported greater conviction ($M = 4.93$, $SD = 1.32$) than those who imagined a personally unimportant issue ($M = 4.07$, $SD = 1.42$).

Discussion

In Study 4, we used an experimental design to test the effect of theories of empathy on empathically effortful responses to people

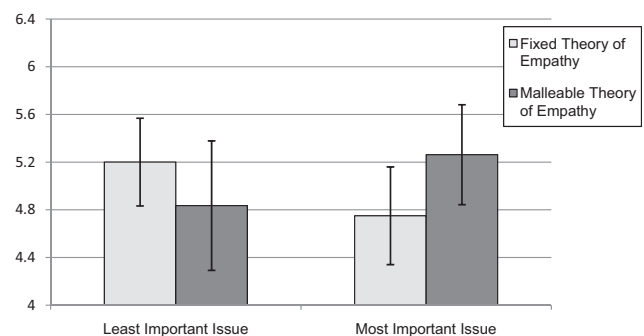


Figure 2. Mean ratings of effort to empathize with a person holding opposing views on sociopolitical issues as a function of theory of empathy condition and empathic challenge condition, Study 4. Error bars represent 95% confidence intervals.

with opposing views on personally important issues. By experimentally inducing either a fixed or malleable theory of empathy, this study provides evidence for a causal pathway between theories of empathy and empathic effort in a challenging conflict context. In Study 5, we moved beyond this conflict context and investigated whether inducing a malleable, as opposed to fixed, theory of empathy can foster more empathic effort in the domain of intergroup interactions, another important yet challenging context.

Study 5: Does a Malleable Theory Promote Empathic Effort in Intergroup Interactions?

In Study 5, we sought to test our hypothesis in the socially significant domain of intergroup interactions. Past work has demonstrated that it is more challenging to empathize with members of a racial outgroup. Scholars have labeled this the “empathy gap” and have provided evidence for this gap using both behavioral and social neuroscience demonstrations (Cikara, Bruneau, & Saxe, 2011; Gutsell & Inzlicht, 2010, 2012; Hein, Silani, Preuschhoff, Batson, & Singer, 2010; Saucier, Miller, & Doucet, 2005). Unfortunately, it is in these challenging intergroup contexts where empathy might be most needed, as empathy is an important pathway to positive intergroup interactions (Dovidio et al., 2004; Todd et al., 2011; Vescio, Sechrist, & Paolucci, 2003; but see Vorauer & Sasaki, 2009). The absence of empathy in intergroup contexts also has important negative consequences for empathy targets. For example, White jurors are less likely to empathize with Black defendants and victims, resulting in harsher punishments for Black defendants and more lenient punishments for White defendants who harmed Black victims (Dieter, 1998; Linder, 1996). Increasing empathic effort might therefore be an effective strategy for counteracting the empathy gap, resulting in improved intergroup relations and reduced negative consequences for members of minority groups.

In the present study, we tested whether inducing a malleable theory of empathy could promote empathic effort toward a member of a racial outgroup. White participants chose how long they listened to either a White person (less challenging) or a Black person (more challenging) sharing an emotional personal story.

Method

Participants. We recruited 108 (all women; $M_{\text{age}} = 34.32$ years, $SD = 14.06$) White U.S.-born participants to complete an online study in exchange for 50 cents. To ensure that all participants viewed the White empathy target as an ingroup member and the Black empathy target as an outgroup member, 15 non-White participants were excluded (participants were all women to ensure they all viewed the target “Natasha” as a member of their gender ingroup). Two additional participants who reported suspicion about the validity of the audio recording were also excluded from the analyses, leaving a sample of 91 participants ($M_{\text{age}} = 35.03$ years, $SD = 13.99$).

Materials and procedure.

Theory of empathy manipulation. Participants were invited to take part in a set of online studies on “emotional understanding.” As in Study 4, they were randomly assigned to read an article that presented either a fixed or malleable theory of empathy, and then rated its grade-level appropriateness for high school students.

Empathic challenge manipulation. Participants then moved on to the main “emotional understanding” study. They were asked to listen to an audio recording of an undergraduate student describing an emotional personal experience and then complete an emotion judgments questionnaire. They were informed that the recording was long and detailed, so they could fast forward through parts of the recording if they wished. Prior to listening to the recording, they were randomly assigned to see a picture of either a Black or White woman named “Natasha.” We selected the pictures of Black and White Natasha based on pilot testing that we conducted on pictures of five Black and five White women. Twenty psychology graduate students rated each woman on dimensions of physical attractiveness and friendliness (1 = *not at all*, 7 = *extremely*), as well as how stereotypically White or Black she looked (1 = *stereotypically White*, 7 = *stereotypically Black*). The Black and White female pictures we selected were statistically matched for physical attractiveness ($M_s = 4.25$ and 4.45, respectively), $t < 1$, and friendliness ($M_s = 5.10$ and 4.60, respectively), $t(19) = 1.56$, $p = .14$. They were also rated as stereotypically Black ($M = 5.95$) and stereotypically White ($M = 2.00$), respectively, $t(19) = 16.82$, $p < .001$.

Time spent listening to empathy target. After seeing the picture of either Black or White Natasha, participants listened to a 10-min recording of Natasha’s experience with her grandmother’s battle with cancer. They fast-forwarded through the recording as they desired by dragging the progress line on the audio controller. A script on the webpage recorded the total number of seconds they spent listening to the recording, which comprised our measure of empathic effort.⁶ Finally, to uphold the cover story, participants completed the emotion judgments questionnaire, in which they were asked to rate how much Natasha experienced a variety of different emotions (e.g., sadness, hope, anger).

Results

We tested our hypothesis that theory of empathy condition would predict time spent listening to the target’s emotional story when in the challenging interracial context. Exploration of the data revealed a non-normal distribution of time spent listening to the recording (Shapiro–Wilk test = .86, $p < .001$), with 31.87% of participants listening to the full recording. Because the assumption of normality was violated, we used a non-parametric adjusted rank transformed (ART)⁷ ANOVA (Leys & Schumann, 2010) to test for an interaction. A 2 (fixed theory vs. malleable theory) \times 2 (White Natasha vs. Black Natasha) adjusted rank transformed ANOVA yielded a significant interaction, $F(1, 87) = 10.77$, $p = .001$, $\eta_p^2 = .11$ (see Figure 3).

⁶ After listening to the recording of Natasha, participants answered seven multiple-choice questions assessing their memory of the basic facts presented in the recording. All participants were generally accurate on this test ($M = 5.36$ out of 7, $SD = 1.39$).

⁷ To conduct an adjusted rank transformed ANOVA, the raw data are adjusted by subtracting the respective marginal means from each observation. A rank is then assigned to each adjusted observation, and a classical factorial ANOVA is conducted on the adjusted ranked data. Main effects are subsequently calculated by subtracting the interaction from the raw data, ranking the adjusted observations, and then conducting a parametric test. Finally, simple effects are computed by reconstructing the sum of squares and error term (Leys & Schumann, 2010).

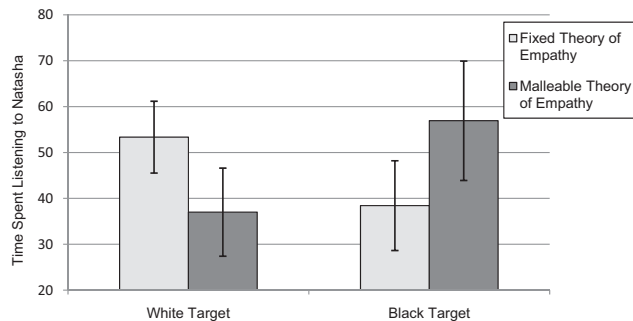


Figure 3. Mean adjusted rank of time spent listening to an emotional personal story as a function of theory of empathy condition and race of empathy target, Study 5. Error bars represent 95% confidence intervals.

Examination of the simple effects revealed that, as predicted, participants in the malleable condition ($M_{\text{rank}} = 56.91$, $SD_{\text{rank}} = 31.87$) spent more time listening to Black Natasha than did participants in the fixed condition ($M_{\text{rank}} = 38.42$, $SD_{\text{rank}} = 24.47$), $F(1, 87) = 6.30$, $p = .01$, $d = 0.65$. People with a malleable theory of empathy therefore expended more effort in the challenging interracial context than did people with a fixed theory. By contrast, participants in the malleable condition ($M_{\text{rank}} = 37.00$, $SD_{\text{rank}} = 24.01$) spent less time listening to White Natasha than did participants in the fixed condition ($M_{\text{rank}} = 53.35$, $SD_{\text{rank}} = 17.88$), $F(1, 87) = 4.58$, $p = .04$, $d = 0.77$. Although we did not explicitly predict this difference, it suggests that participants in the fixed theory of empathy condition may have wanted to linger on an easy opportunity to validate that they are an empathic person (see Discussion).

Discussion

In Study 5, we extended our findings into the context of intergroup relations—a domain that has received much attention from empathy researchers because of the observed empathy gap. We found that people induced to have a malleable theory of empathy spent more time listening to the emotional personal story of a racial outgroup member. By contrast, people induced to have a fixed theory of empathy spent more time listening to the emotional personal story of a racial ingroup member. These findings may reflect the different motivational foci of people holding malleable versus fixed theories of empathy. Whereas people with a malleable theory are typically more motivated by learning goals and may thus be more likely to regard the challenging intergroup context as an opportunity for growth, people with a fixed theory are typically more motivated by validation goals and may thus be more likely to regard the less challenging ingroup context as an opportunity to demonstrate (to themselves or others) their capacity for empathy. This is consistent with past research demonstrating that people with fixed, as opposed to malleable, theories of intelligence prefer to focus on material that they have already mastered and thus can use to demonstrate their intellectual capacity (Nussbaum & Dweck, 2008).

Study 6: Does a Malleable Theory Promote Empathically Effortful Helping?

In Study 6, we explored the effects of a theory of empathy manipulation in the context of helping. The link between empathy and helping behavior has been studied for decades. Empathy is considered a vital pathway to altruistic, non-egoistic helping, as empathy predicts helping even when helping is challenging or costly (e.g., Batson et al., 1981, 1988). We therefore examined whether theories of empathy would predict empathic effort in a helping context that is distressing and thus challenging. Participants were induced to have either a fixed or malleable theory of empathy and then indicated their willingness to help cancer patients in empathically effortful and non-effortful ways. We predicted that people induced to have a malleable, as opposed to fixed, theory of empathy would be more willing to help, particularly when helping required a lot of empathic effort.

Method

Participants. Over one week, we recruited 38 participants (24 men, 14 women; $M_{\text{age}} = 24.32$ years, $SD = 9.16$) who were at the student center at Stanford University. Two participants were dropped from analyses for reporting suspicion about the validity of the manipulation article, leaving a sample of 36 participants (23 men, 13 women; $M_{\text{age}} = 23.03$ years, $SD = 3.62$). Participants received two snacks of their choice (e.g., chocolate bar, candy, pack of gum) for their time.

Materials and procedure.

Theory of empathy manipulation. Participants were invited to take part in “two short psychology studies.” The first study contained our theory of empathy manipulation. As in Studies 4 and 5, they were randomly assigned to read an article that presented either a fixed or malleable theory of empathy, and then rated its grade-level appropriateness for high school students.

Empathy-related dependent measures.

Empathically effortful helping. Participants then moved on to the second study, which included our measure of empathically effortful helping. They read that we were conducting a survey on behalf of a team of postdoctoral scholars at Stanford University, who were interested in estimating the type of response they would receive from the Stanford community. Participants first read an information page titled “Coming together in the prevention and treatment of cancer,” which emphasized the need for the support of the American public in the fight against cancer. We selected cancer as the cause because we wanted it be distressing for participants to put themselves in a position to truly empathize with cancer patients. The information page described three of the most beneficial ways to support the cause: by spreading awareness about cancer, by providing social support to cancer patients, or by offering monetary donations to fund cancer research.

Participants then read that a team of postdoctoral scholars was organizing an ongoing campus-wide campaign against cancer, and that there would be three ways to help: (1) *Volunteering at a cancer awareness booth on campus*: Volunteers will pass out information booklets and raise awareness about cancer and cancer prevention; (2) *Volunteering at a social support group on campus*: Volunteers will come together in a group to listen to cancer patients as they share stories about their expe-

riences with cancer; (3) *Volunteering at a walkathon on campus*: Volunteers can walk in the annual race or act as event staff in this walk to raise money for cancer research. Participants read that, based on past cancer campaigns, all three ways of helping were equally needed and valued, and that all would occur on the Stanford campus.

The three different ways of helping called for different degrees of empathic effort, with the provision of direct social support to cancer victims describing their experience being the most empathically demanding. This was confirmed by a pilot study with 26 psychology graduate students who judged the social support group as requiring more empathic effort ($M = 5.88, SD = 1.73$) than either the cancer awareness booth ($M = 3.23, SD = 1.34, t(25) = 9.78, p < .001, d = 3.91$, or the walkathon ($M = 2.81, SD = 1.39, t(25) = 8.67, p < .001, d = 3.47$).

The questionnaire then asked participants to provide realistic estimates of their intentions to help this cause. They were informed that they were not officially signing up to complete these volunteering hours, but we asked that they provide a realistic estimate of their intentions to volunteer for this cause. They wrote down the number of hours, if any, that they would be willing to volunteer in each of the three capacities. The number of hours that participants were willing to volunteer in the social support group comprised our measure of empathically effortful helping. We predicted that, relative to participants induced to have a fixed theory of empathy, those with a malleable theory would indicate greater willingness to volunteer in the social support group (which required the most empathic effort), but that there would be no condition differences in willingness to volunteer at the awareness booth or walkathon.

Amount of money willing to donate. Participants next imagined that they would not be able to volunteer in the campaign against cancer, but would have the opportunity to make a monetary donation to the cause if they wished. They indicated how much of their personal money they would realistically donate. We did not expect to see condition differences on this less empathically effortful way of helping.

Self-reported empathy. We next assessed feelings of empathy to examine whether a malleable theory of empathy would also have immediate effects on feelings of empathy. On 7-point scales (1 = *didn't feel this emotion at all*, 7 = *felt this emotion very deeply*), participants indicated how much they felt 13 different emotions while reading the information on the cancer campaign (e.g., empathy, anger, excitement).

Willingness to read emotional stories. As an additional measure of empathic effort, on a 7-point scale (1 = *not at all*, 7 = *very much*), participants indicated how interested they would be in reading personal stories written by cancer patients.

Additional measures. Participants responded to two additional questions to confirm that the cancer cause was similarly important to the fixed and malleable groups. First, to assess a more generic desire to help, participants indicated how much they would like to personally help cancer patients on a 7-point scale (1 = *not at all*, 7 = *very much*). Second, we included an item to ensure that any observed condition differences were not driven by different experiences with cancer. On a 7-point scale (1 = *not at all*, 7 = *very much*), participants indicated how much cancer has affected their own life. We expected the fixed and malleable groups to be similar on both of these measures.

Results

Empathy-related dependent measures.

Empathically effortful helping. A 2 (fixed theory vs. malleable theory) \times 3 (social support group vs. cancer awareness booth vs. walkathon) repeated measures ANOVA with a Greenhouse-Geisser correction revealed an interaction with the expected pattern that failed to reach statistical significance, $F(1.64, 55.59) = 2.26, p = .12, \eta_p^2 = .06$. However, as predicted, participants in the malleable theory of empathy condition indicated that they would volunteer more hours in the direct social support group relative to participants in the fixed theory of empathy condition, $t(34) = 2.29, p = .03, d = 0.79$ (see Table 1). A marginal effect of theory of empathy condition emerged on the number of hours participants indicated they would volunteer at a cancer awareness booth, $t(34) = 1.78, p = .09, d = 0.61$, and no effect of theory condition emerged for the walkathon, $t(34) = -0.19, p = .85, d = 0.06$. The marginal effect found for the cancer awareness booth is consistent with the data from the pilot study, where participants rated the cancer awareness booth as requiring (non-significantly) more empathic effort than the walkathon. In addition, there was no significant difference between fixed and malleable conditions in the amount of money participants indicated they would donate to the cause, $t(34) = 1.50, p = .14, d = 0.51$.

Self-reported empathy. Participants in the malleable theory of empathy condition reported feeling more empathy and sadness when reading the information on the cancer campaign, relative to participants in the fixed theory of empathy condition, $t(34) = 2.27, p = .03, d = 0.78$, and $t(34) = 2.02, p = .05, d = 0.69$, respectively. No other emotions significantly differed by condition (all $ps > .11$).

Willingness to read emotional stories. Participants in the two conditions again differed when it came to exposure to emotionally difficult material. Participants in the malleable theory of empathy condition reported significantly more interest in reading personal

Table 1
Means and Standard Deviations as a Function of Theory of Empathy Condition, Study 6

Variable	Theory of empathy condition	
	Malleable	Fixed
Hours willing to volunteer in social support group (high challenge)	3.39 (3.01) _a	1.50 (1.79) _b
Hours willing to volunteer at cancer awareness booth (lower challenge)	1.67 (1.37) _a	0.86 (1.35) _a
Hours willing to volunteer at walkathon (lower challenge)	2.61 (1.85) _a	2.78 (3.30) _a
Amount willing to donate to cancer campaign (lower challenge)	36.78 (37.90) _a	19.56 (30.84) _a
Self-reported empathy	4.17 (1.42) _a	3.06 (1.51) _b
Self-reported sadness	2.56 (1.29) _a	1.78 (1.00) _b
Interest in reading personal stories by cancer patients (high challenge)	5.11 (1.71) _a	3.94 (1.66) _b
General desire to help cancer patients	4.78 (1.31) _a	4.28 (1.36) _a
Extent to which cancer had affected participant's own life	3.44 (2.12) _a	3.22 (1.80) _a

Note. Standard deviations are indicated in parentheses. Means in the same row with different subscripts are significantly different at the $p < .05$ level.

stories written by cancer patients relative to participants in the fixed theory condition, $t(34) = 2.08, p = .05, d = 0.71$.

Additional measures. We found that the cause was similarly important to the fixed and malleable groups. There was no difference between fixed and malleable conditions in their desire to personally help cancer patients, $t(34) = 1.12, p = .27, d = 0.38$, or in the extent to which cancer had affected their own lives, $t(34) = 0.34, p = .74, d = 0.12$.

Discussion

In Study 6, we examined whether theories of empathy affect people's willingness to help others in an empathically effortful way. Relative to participants induced to have a fixed theory of empathy, those with a malleable theory indicated they would volunteer more hours in a support group that required them to come face-to-face with cancer patients who related their travails. Those with a malleable theory also reported feeling more sadness and empathy when reading about the cancer cause, and they indicated greater willingness to read personal stories written by cancer patients. These findings indicate that a malleable theory of empathy might promote more effortful, altruistic helping behavior and greater empathy toward people who are suffering. Even though people with different theories of empathy are similarly motivated to help, believing that empathy is malleable allows them to confront challenging helping situations and pursue ways of helping that require more empathic effort.

Study 7: Does a Malleable Theory Promote a Desire to Improve One's Empathy?

In the first six studies, we presented evidence that people with a malleable theory of empathy are willing to invest greater effort in feeling empathy, particularly when it is challenging to do so. However, we did not present evidence for why this is the case. Thus, in this final study, we examined whether a malleable theory might foster greater motivation to develop one's empathic abilities. If so, this may be a prime reason that empathically challenging situations are more motivating than threatening to people in a malleable mindset.

We tested this hypothesis by exposing participants to explicit evidence that empathy is difficult for them to experience. We induced either a fixed or malleable theory of empathy in participants and then provided them with predetermined feedback regarding their empathic abilities. Half of the participants were informed that they had failed a diagnostic test of emotional understanding; the other half was informed that they had succeeded. We reasoned that the failure feedback would directly call into question participants' empathic abilities and cause them to feel that empathy is personally challenging. After the feedback manipulation, we gave participants an opportunity to engage in remedial action that would help them improve their empathy. We predicted that participants induced to have a malleable, as opposed to fixed, theory of empathy would be more likely to capitalize on this opportunity to develop their empathic abilities.

Method

Participants. We recruited 130 participants (all women);⁸ $M_{\text{age}} = 32.32$ years, $SD = 12.62$) through Amazon Mechanical

Turk to complete an online study in exchange for 75 cents. In this study, participants completed an emotional understanding test by identifying the emotion being portrayed in 24 pictures of eyes (see Materials and Procedure). Because all of the eyes in this test belonged to White faces and because we wanted all participants to regard the predetermined feedback they received on this test as plausible and meaningful, we excluded any non-White participants (28 participants). One additional participant (82 years of age) was excluded from the analyses for being more than four standard deviations older than the mean sample age (see Footnote 9 in the Results section). These exclusions left a final sample of 101 participants ($M_{\text{age}} = 32.44$ years, $SD = 12.30$).

Materials and procedure.

Theory of empathy manipulation. Participants were invited to take part in an online study on "emotional understanding." As in Studies 4–6, they were randomly assigned to read an article that presented either a fixed or malleable theory of empathy, and then they rated its grade-level appropriateness for high school students.

Empathic challenge manipulation. To experimentally vary empathic challenge, we provided participants with predetermined feedback on an empathy aptitude test—a 24-item Reading the Mind in the Eyes Test (Baron-Cohen, Wheelwright, Hill, Raste, & Plumb, 2001). Prior to completing this test, participants were informed that it was the most widely used test of emotional understanding. Participants saw 24 pairs of eyes and selected the emotion word that best described what the person was feeling from four available options (e.g., serious, ashamed, bewildered, alarmed). After selecting the emotion they thought corresponded to each set of eyes, participants were randomly assigned to receive either success or failure feedback. Participants who received success feedback read that they had scored in the 86th percentile and were thus very accurate at understanding people's emotions; participants who received failure feedback read that they had scored in the 36th percentile and thus found understanding other people's emotions quite difficult. This feedback was designed to induce feelings of empathic challenge.

Interest in remediation. Next, we gave participants an opportunity to take remedial action to improve their empathic abilities. Participants were informed that they could sign up for a supplementary online training session designed to help people improve their level of emotional understanding. They were informed that

⁸ We recruited only female participants because we included a secondary dependent measure that required that all participants were women. After completing the main interest-in-remediation dependent measure, all participants listened to an audio recording of a woman named "Natasha" (as in Study 5, except that in the current study, "Natasha" was always White). We recruited all female participants to ensure that they viewed Natasha as an ingroup member. We included this secondary dependent measure to test the hypothesis that participants receiving failure feedback would experience an empathic challenge, and that people with a malleable theory would spend more time listening to Natasha than people with a fixed theory when facing this challenge. The Theory of Empathy Condition \times Empathic Challenge Condition interaction was not quite significant, $F(1, 94) = 2.16, p = .15$, possibly because participants had already completed the primary dependent measure of interest in remediation. Importantly, however, the interaction pattern precisely mirrored the results found in Study 5: When participants received the challenging failure feedback, those in the malleable theory condition ($M_{\text{rank}} = 54.50$) spent marginally more time listening to the recording of Natasha than did participants in the fixed theory condition ($M_{\text{rank}} = 44.68$), $F(1, 94) = 2.82, p = .096$.

the training was completely optional, could be completed at any time, and that they would not receive extra compensation for completing it. More specifically, participants had the option of selecting no training or one of three training modules (5 min, 15 min, or 30 min in duration). In total, 26% of participants signed up for a supplementary empathy training session (11%, 6%, and 9% for the 5-, 15-, and 30-min modules, respectively). Because the number of participants who signed up for each training length was low, we combined the three nonzero training options to create a dichotomous variable (0 = no training session selected, 1 = training session selected). We predicted that, after receiving the challenging failure feedback, participants induced to have a malleable, as opposed to fixed, theory of empathy would be more likely to invest effort to improve their empathy than those induced to have a fixed theory.

Results

Reading the Mind in the Eyes Test performance. We first examined participants' actual performance on the Reading the Mind in the Eyes Test to ensure there were no differences by condition. As expected, a 2 (fixed theory vs. malleable theory) \times 2 (success feedback vs. failure feedback) ANOVA on the total number of correct responses on this test revealed no significant main or interaction effects (all p s > .18).

Interest in remediation. To test our prediction that participants with a malleable theory of empathy would be more likely than those with a fixed theory to pursue remediation after failure feedback, we conducted a binary logistic regression analysis with theory of empathy condition (0 = fixed theory, 1 = malleable theory) and Reading the Mind in the Eyes Test feedback condition (0 = success feedback, 1 = failure feedback) predicting the dichotomized empathy training session variable. This analysis yielded a significant interaction, Wald's $\chi^2(1) = 3.91$, $p = .05$, depicted in Figure 4. Examination of the interaction revealed that, after receiving failure feedback on the Reading the Mind in the Eyes Test, participants in the malleable condition were significantly more likely to sign up for an empathy training session (40.74%) than were participants in the fixed condition (10.71%), Wald's $\chi^2(1) = 5.79$; odds ratio (OR) = 5.73, 95% CI [1.38, 23.76], $p = .02$. After receiving success feedback on the Reading the Mind in the Eyes Test, however, participants in the malleable

condition (23.81%) and fixed condition (28.00%) did not differ, Wald's $\chi^2(1) = 0.10$; OR = 0.80, 95% CI [0.21, 3.04], $p = .75$.⁹ Participants induced to have a malleable theory of empathy were thus more likely to try to improve their empathy, but only when they believed that empathy was challenging for them.

Discussion

Study 7 extends our findings in important ways. Compared to participants induced to hold a fixed theory of empathy, those given a malleable theory of empathy were more likely to pursue an opportunity for growth after being confronted with test feedback that called into question their empathic abilities. This study thus helps us understand why people with a malleable theory might be more likely than those with a fixed theory to expend empathic effort in challenging empathy contexts: They seek to stretch themselves to overcome their limitations. This finding is consistent with past work demonstrating that people with malleable theories of different attributes have stronger learning goals and are more likely to respond to setbacks by pursuing opportunities for growth (e.g., Beer, 2002; Blackwell, Trzesniewski, & Dweck, 2007; Heine et al., 2001; Hong et al., 1999; Mueller & Dweck, 1998; Nussbaum & Dweck, 2008). Encouraging the mindset that empathy can change therefore seems to foster an orientation toward learning and growth, which might then motivate effortful attempts to empathize when it is challenging to do so.

General Discussion

Empathy is central to adaptive social functioning (Eisenberg & Miller, 1987). It predicts diverse positive outcomes, such as conflict resolution (e.g., White, 1985), unprejudiced intergroup attitudes (e.g., Vescio et al., 2003), altruistic helping behavior (e.g., Batson et al., 1988), and lower levels of antisocial behavior (e.g., bullying; Ireland, 1999). However, despite its importance and despite the many theories that posit its automatic nature, empathy is often not felt easily or automatically. We therefore proposed the concept of empathic effort and asked when and why people would be able and willing to stretch themselves to exert empathic effort in the service of feeling empathy when it was difficult. Across seven studies, we tested and found support for our hypothesis that people's mindsets of empathy affect whether they expend effort to engage in empathy when doing so poses a challenge.

In Study 1, we found that participants holding a more malleable theory of empathy reported that they typically expend more empathic effort in contexts where empathy is challenging (e.g., when they disagree with someone or someone they do not know is suffering), and typically persist more in trying to feel empathy when they do not immediately feel it. In Studies 2–6, we found support for our hypothesis in three contexts in which empathy is both challenging and important to positive social outcomes. In Studies 2–4, we tested our hypothesis in the context of a fundamental conflict in beliefs and found that a malleable theory of empathy—whether measured (Studies 2 and 3) or experimentally

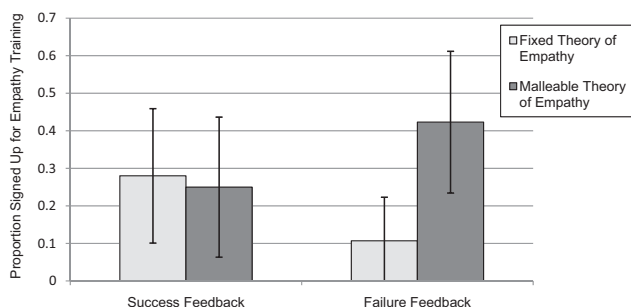


Figure 4. Proportion of participants who signed up for an empathy training session as a function of theory of empathy condition and success versus failure feedback on an empathy aptitude test, Study 7. Error bars represent 95% confidence intervals.

⁹ Although including the 82-year-old outlier in the analysis changed the interaction effect to marginal significance, Wald's $\chi^2(1) = 3.11$, $p = .08$, the simple effect of theory of empathy condition after failure feedback remained significant, Wald's $\chi^2(1) = 4.79$, $p = .03$.

induced (Study 4)—promoted more empathically effortful responses to a person with conflicting views on personally important sociopolitical issues. In Study 5, we tested our hypothesis in an intergroup context and found that people induced to have a malleable, as opposed to fixed, theory of empathy spent more time listening to the emotional personal story of a racial outgroup member. In Study 6, we tested our hypothesis in a distressing helping context and found that people induced to have a malleable, as opposed to fixed, theory of empathy exhibited greater willingness to help cancer patients in empathically effortful ways, such as listening to stories of their fights with cancer. In a final study, we found that those induced to have a malleable theory were more likely to pursue an opportunity for improvement after being confronted with evidence that they lacked empathic ability. This study provides a way of understanding mindset differences in empathic effort: Those with a malleable theory are more willing to extend themselves to learn and improve when they are not yet up to the job.

Together, these studies tell a cohesive story about how mindsets of empathy affect empathic effort. We demonstrated our effects using both measured and manipulated mindsets of empathy, different forms of empathic challenge, and both self-reported and non-self-reported outcomes. We also demonstrated our effects on diverse measures of empathic effort, including reaching across a political divide, listening to a racial outgroup member, and being willing to engage in empathically effortful helping behavior. These studies thus suggest that the effects of theories of empathy on empathic effort are powerful, arising across wide-ranging operationalizations and contexts.

This research has important theoretical implications. First, by focusing on empathic effort, it contributes to the empathy literature by revealing a new and important piece of the empathy puzzle. It helps us understand the limits of automatic empathy and what can be done when automatic empathy breaks down or is not sufficient for the task at hand. The diminishing levels of empathy in our culture suggest that empathic effort might be more important than ever before, as it might be particularly challenging to feel empathy in the modern world. For instance, Americans are more stressed than they used to be and likely feel preoccupied with the hectic nature of their own lives (Cohen & Janicki-Deverts, 2012; Twenge, 2006). They are also less likely to live with their nuclear family (U.S. Census Bureau, 2013), they spend more time in distant online encounters (Pew Research Center, 2012), and they are more likely than ever to work in mixed-gender and mixed-ethnicity environments (Burns, Barton, & Kerby, 2012; Pew Research Center, 2013). As society changes in these directions, people may need to exert more effort to relate to and effectively empathize with others. Future research should thus continue to explore the predictors, benefits, and possibly even costs of empathic effort so that we may understand how to counter the empathy deficit by promoting empathic effort.

The present research also identifies and demonstrates the importance of a previously unexplored variable—people's theories of empathy. It highlights the fact that people's *beliefs* about empathy—their theories about whether or not empathy can change and be developed—play a role in their empathy behavior even beyond their self-reported levels of chronic empathy. Future work might explore whether theories of empathy can promote empathic effort and downstream positive outcomes in other challenging contexts

that typically benefit from empathy. For example, does a malleable theory of empathy foster empathic effort between transgressors and victims, and ultimately increase reconciliatory responses, such as apologies and forgiveness? Does a malleable theory of empathy foster educators' empathic effort toward struggling students, and ultimately promote positive academic (and non-academic) outcomes for these students? Here, we attempted to show the broad importance of theories of empathy by examining its effects in diverse contexts. However, given the widespread benefits of empathy, it seems likely that the effects of mindsets of empathy extend far beyond the findings we have presented here.

In addition, the present research points to a possibly new and effective target for intervention. Past attempts to enhance empathy have typically used perspective-taking instructions to situationally increase empathy (e.g., Batson et al., 1997; Todd et al., 2011; Vescio et al., 2003) or repeated training sessions that teach children and adults to be more empathic toward others (e.g., by teaching them associations between target facial expressions and emotions; Feshbach & Cohen, 1988; Golan & Baron-Cohen, 2006; Hadwin, Baron-Cohen, Howlin, & Hill, 1996; Riess, Kelley, Bailey, Dunn, & Phillips, 2012). The success of these interventions suggests that empathy is a malleable attribute that can be taught and developed. However, both of these approaches have limitations. For example, perspective-taking instructions are probably not spontaneously activated when empathy is most challenging (e.g., conflict or intergroup contexts) and might not produce long-term change. Training sessions have been shown to produce long-term change but sometimes improve specific empathy-related skills without affecting empathy more broadly (Golan & Baron-Cohen, 2006; Hadwin et al., 1996).

A complementary approach might therefore be to target people's *theories* of empathy, which could produce long-term increases in empathy that extend across situations, particularly those that are most challenging. In Studies 4–7, we exposed participants to either a fixed or malleable theory of empathy by presenting them with an article describing scientific evidence for one theory or the other. We found that these articles were successful at inducing the two theories at least temporarily, as they yielded the predicted effects on our outcomes of interest. To create lasting changes that promote long-term effects on empathic effort, an intervention could be modeled after past interventions designed to change people's theories of intelligence (e.g., Aronson, Fried, & Good, 2002; Blackwell et al., 2007). These interventions use multiple strategies, such as teaching a malleable theory over several sessions, offering vivid analogies to explain the idea of malleability, or asking participants to help others understand that intelligence is malleable. Future research might explore the impact of a more involved empathy mindset intervention on people's tendencies to respond with empathic effort, particular in contexts in which empathy is both challenging and critical to positive social outcomes, such as marriage counseling or jury duty.

Conclusion

Empathy exerts a powerful influence on how people treat one another, and high levels of empathy promote positive outcomes for both the empathy target and empathizer (e.g., Baron-Cohen, 1994; Batson et al., 1988; Eisenberg & Miller, 1987). However, people

might often not experience these benefits of empathy when it is challenging to empathize with others. Our research demonstrates that one way to respond to these empathic challenges is to expend additional effort to feel empathy. It highlights the importance of people's mindsets of empathy in predicting this empathic effort, and thus identifies a new and potentially important way of addressing the empathy deficit.

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Appendix A

Theories of Empathy Scale

Using the scale below, please indicate your agreement with each of the following statements.

1	2	3	4	5	6	7
<i>Strongly disagree</i>						<i>Strongly agree</i>
1. A person's level of empathy is something very basic about them, and it can't be changed much. _____						
2. Whether a person is empathic or not is deeply ingrained in their personality. It cannot be changed very much. _____						
3. People can't really change how much empathy they tend to feel for others. Some people are very empathic and some aren't and they can't change that much. _____						
4. No matter who somebody is, they can always change how empathic a person they are. _____						
5. People can always change how much empathy they generally feel for others. _____						
6. Anybody can change how empathic a person they are. _____						

(Appendices continue)

Appendix B

Malleable Theory of Empathy Manipulation Article

by Jennifer Schneider

Published: December 28, 2010

Empathy Is Changeable and Can Be Developed

Recently, I bumped into someone I went to high school with over 10 years ago. As with all post-high school encounters, I couldn't help but compare the person in front of me to the person I remembered. Mary was one of those unsympathetic types who didn't really ever put herself in other people's shoes or understand how other people felt. Can you imagine my surprise to find that she is now a social worker with a family and an active role in community service? Meeting such a different person now, I wondered how Mary had changed so much.

Does Empathy Change?

To find out what the experts say about whether empathy can change, I went to the Empathy Research Laboratory (ERL) at Harvard University. For more than 25 years, the ERL has been following over 800 individuals. The researchers have been collecting elaborate data on them since childhood, including school records, many observations at home and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In a recent article published in the *Journal of Personality Research*, Dr. Daniel Lawrence, the Director of ERL, reported the findings of their research. Dr. Lawrence concluded that "Empathy is changeable and can be influenced over time. Empathy is not stable over one's lifetime. It can be developed and cultivated." Dr. Lawrence shows that of the 800 individuals followed over 25 years, very few people's overall empathy levels stayed the same as it was at the beginning of the study. Why? As Dr. Lawrence explains, "People learn and grow throughout life. Empathy is no different. It too can change. It is not always easy, but if they want to, people can shape how much empathy they feel for others. No one's empathy is hard like a rock."

How Does Empathy Change?

To better understand how empathy changes, I spoke to eminent psychologists and neuroscientists all across the country. Surprisingly, I found good consensus that all through life, people can change their own levels of empathy.

How have these fields come to such agreement about the ability of empathy to be changed? Actually, this conclusion was reached long ago. The classic Child and Youth Engagement Study convinced the field of psychology that empathy can indeed be

changed. In 1965, Henry Giroux established one of the most ambitious and exciting intervention programs ever conceived. It was designed to serve the needs of low-empathy youngsters who had previously demonstrated bullying behavior or were judged by schools, police, or welfare agencies to be "at risk" of becoming bullies. Bullying was the focus of the study, because it is a common and serious problem that is strongly predicted by a lack of empathy for others. The youngsters were 250 boys from working-class families in a densely populated area of Massachusetts. They entered the program at ages ranging from 5 to 11 and then continued in it for an average of five years.

The main research question of the intervention program was whether these children could learn to become more empathic toward others, and, as a result, stop bullying other children. Among other things, during the five years of the program, each child was paired with a social worker who visited him twice a month. The social workers taught these children about putting themselves in other children's shoes, trying to see things from other children's points of view, and feeling what other children are feeling.

The results of the intervention were rewarding. Compared to the youngsters who were also bullies or "at risk" but were *not* in the program, those who had the intervention showed dramatic differences. Among the youngsters who were not in the program, over 60% were labeled as bullies in their high schools. In contrast, only 17% of the youngsters who were in the program were labeled as bullies in their high schools. In fact, many of the children in the program were identified by families and friends as now being highly empathic individuals.

What had changed their levels of empathy? Follow-up interviews with the participants when they were adults revealed that most attributed their empathic growth to believing that empathy *can* be changed. Said one participant: "Every time I struggled with feeling empathy for someone or seeing their perspective, I remembered what I learned during the program. That's OK, empathy can be changed. If I don't feel empathy naturally, it doesn't mean that I'm incapable of feeling it."

The conclusion is clear: the results from the Child and Youth Engagement Study indicate that empathy is changeable, and that understanding that it can sometimes be difficult to change is an important step to developing one's empathy.

Lessons Learned

So what about my old classmate, Mary? Well, I guess she worked at developing feelings of empathy over the years. Now, as a social worker, she can pass on the message to others: people can change how much empathy they feel for others.

(Appendices continue)

Appendix C

Fixed Theory of Empathy Manipulation Article

by Jennifer Schneider
Published: December 28, 2010

Empathy, Like Plaster, Is Pretty Stable Over Time

Recently, I bumped into someone I went to high school with over 10 years ago. As with all post-high school encounters, I couldn't help but compare the person in front of me to the person I remembered. Mary was one of those unsympathetic types who didn't really ever put herself in other people's shoes or understand how other people felt. Can you imagine my lack of surprise to find that she is now a mortgage lender who sometimes repossesses the homes of struggling homeowners? Meeting such a similar person now, I wondered, why hadn't Mary changed—why hadn't she grown out of her non-empathic persona?

Does Empathy Change?

To find out what the experts say about whether empathy can change, I went to the Empathy Research Laboratory (ERL) at Harvard University. For more than 25 years, the ERL has been following over 800 individuals. The researchers have been collecting elaborate data on them since childhood, including school records, many observations at home and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In a recent article published in the *Journal of Personality Research*, Dr. Daniel Lawrence, the Director of ERL, reported the findings of their research. Dr. Lawrence concluded that "Empathy is rather fixed and develops consistently along the same path over time. Empathy might start out flexible, but after the early years, it appears to solidify into a cohesive empathy profile." Dr. Lawrence shows that of the 800 individuals followed over 25 years, very few people's overall empathy changed significantly from what it was at the beginning of the study. Why? As Dr. Lawrence explains, "In most of us, by a very young age, our empathy profile has set like plaster and cannot soften again. Even if we want to change our empathy and shape how much empathy we feel for others, we are not usually successful. Empathy becomes pretty hard, like a rock."

Can External Influences Change Empathy?

To better understand why empathy does not change, I spoke to eminent psychologists and neuroscientists all across the country. Surprisingly, I found good consensus that all through one's life, regardless of one's experiences, one's empathy stays relatively constant.

How have these fields come to such agreement about the inability of empathy to be changed? Actually, this conclusion was reached long ago. The classic Child and Youth Engagement Study convinced the field of psychology that empathy does indeed stay stable over time. In 1965 Henry Giroux established one of the most

ambitious and exciting intervention programs ever conceived. It was designed to serve the needs of low-empathy youngsters who had previously demonstrated bullying behavior or were judged by schools, police, or welfare agencies to be "at risk" of becoming bullies. Bullying was the focus of the study, because it is a common and serious problem that is strongly predicted by a lack of empathy for others. The youngsters were 250 boys from working-class families in a densely populated area of Massachusetts. They entered the program at ages ranging from 5 to 11 and then continued in it for an average of five years.

The main research question of the intervention program was whether these children could learn to become more empathic toward others, and, as a result, stop bullying other children. Among other things, during the five years of the program, each child was paired with a social worker who visited him twice a month. The social workers taught these children about putting themselves in other children's shoes, trying to see things from other children's points of view, and feeling what other children are feeling.

Although the boys benefitted from the program in many other ways (e.g., by becoming more successful students in school), the results regarding empathy were disappointing. Compared to the youngsters who were also bullies or "at risk" but were *not* in the program, those who had the intervention were equally likely to be labeled as bullies in their high schools. In fact, many of the children in the program were still identified by families and friends as being non-empathic individuals.

Follow-up interviews with the participants when they were adults revealed that most had fond memories of the people and experiences. Some of the participants expressed gratitude for the steady involvement of their social worker in their lives. Others recalled specific lessons they were taught about empathy, even though the participants were not helped by the intervention. Said one participant: "It was a terrific program. I learned so many great things that really helped me. On the other hand, the program taught me about putting myself in other people's shoes, but I just don't seem to have that kind of sensitivity for other people's feelings."

The conclusion is clear: the results from the Child and Youth Engagement Study indicate that empathy may be learnable early on, but later it is not changeable, even if one tries to develop it.

Lessons Learned

So what about my old classmate, Mary? I guess it's no surprise that her level of empathy hadn't changed over time. Even if she had tried to learn to feel empathy for others, she probably would have been unsuccessful because it is just a part of who she is.

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