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# EXAMINING THE MORAL SIGNIFICANCE OF SECONDHAND EMPATHY

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by

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### ABSTRACT

Empathy and morality are often linked. When witnessing a person in need, feeling empathy for this person's suffering can often facilitate the belief that they are worthy of concern and a legitimate victim of a moral wrong. In this dissertation, we examine whether morality can be facilitated through *secondhand empathy*, where one witnesses and empathizes with the empathy expressed by another person towards a victim. Across three studies, we tested the hypothesis that secondhand empathy increases the belief that harm done to victims is morally wrong (i.e., moralization) and levels of empathic concern for victims. In Study 1, participants who were instructed to either empathize with victims (firsthand empathy) or with people who showed empathy for these victims (secondhand empathy) both reported greater moralization and concern for victims (vs. two control groups, where participants were instructed to emotionally detach themselves from victims or empathizers), suggesting that second hand empathy may shape morality to a similar degree as firsthand empathy. In Study 2, secondhand empathy did not increase moralization or concern when compared to a baseline, no-instruction control group; however, instructions to emotionally detach oneself from empathizers (i.e., secondhand detachment) decreased moralization and concern when compared to this no-instruction control. In Study 3, we examined whether effects of secondhand empathy may differ depending on how much a person is inclined to show empathy towards a victim by default. We tested this question by comparing effects of secondhand empathy on moralization and concern when victims were part of either a stigmatized (i.e., having a history of drug addiction) or non-stigmatized (i.e., a middle-class American) group. Secondhand empathy slightly increased empathic concern (but not moralization) across both stigmatized and non-stigmatized victims. Overall, these studies provide mixed evidence that secondhand empathy can facilitate morality and concern for victims and broaden our theoretical understanding of the role of empathy in morality.

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### Chapter 1

# Introduction

Empathy – how people resonate with the internal experiences of others – often intersects with morality. Because empathy can provide a window into other minds, it helps attune people to others' suffering and misfortune, offering a moral compass (Zaki, 2018) and prompting altruistic behavior (Batson et al., 1981). In an array of academic fields – from social psychology to moral philosophy – there is an immense effort to understand the moral causes, consequences, upsides, and pitfalls of empathy.

In this paper, we will examine the moral consequences of *secondhand* empathy. In contrast to firsthand empathy – where one witnesses a victim and responds with empathy – secondhand empathy deals with how a person responds to the empathy expressed by another person. The basic structure of secondhand empathy is as follows: Person A, a firsthand empathizer, witnesses a victim of harm and feels empathy for their suffering; Person B, a secondhand empathizer, witnesses Person A's empathic response and feels empathy for them. By feeling empathy for Person A's moral concern, Person B may then become concerned for the victim themselves, resulting in a transfer of moral concern from Person A to Person B. This would mean that Person B may become concerned for a victim even if they did not do so initially: in this case, interacting with and empathizing with an empathizer is sufficient to produce a change in Person B's moral perspective.

To illustrate, consider meat-eating. Many people come to view eating meat as morally wrong by viewing depictions of the meat industry and resonating with the suffering of animals (e.g., Feinberg et al., 2019). Imagine Person B does not view meat-eating as a moral issue. However, they discuss meat-eating with a friend – Person A – who empathizes with the suffering of animals and believes it is morally wrong to eat meat. Person B then resonates with their friend's concern for animals and begins to view meat-eating as a moral issue themselves. Moral psychologists have discussed the moral reasoning processes that may occur in exchanges such as these and how they may serve to modify people's moral vantage points (e.g., Paxton & Greene, 2010). This paper will seek to illuminate how empathy may adjust moral attitudes through the vicarious transfer of empathy from one person to another.

Examining this transfer of empathy may deepen our understanding of how empathy contributes to morality. The link between empathy and morality is well-explored in moral psychology (Bloom, 2017; Decety & Cowell, 2014; Hoffman, 2001; Marsh & Cardinale, 2014), but it is often assumed that this process occurs through firsthand experience: a person witnesses another's suffering, feels empathy for them, and comes to view them as a legitimate victim of harm. Recent research has begun to consider how empathy may operate in more complex social interactions (Zaki, 2020); for instance, Wang and Todd (2021) examined empathy using an extradyadic approach (i.e., involving more actors than one victim and one empathizer). However, this work has thus far been limited to people's moral evaluations of empathizers (Wang & Todd, 2021), rather than empathy for another person's empathic response and its relationship to how one morally evaluates a victim of harm.

If secondhand empathy contributes to moral attitudes, this would suggest that firsthand experience is not the only form of empathy that guides morality. There would be multiple theoretical and practical implications of this idea. First, secondhand empathy is likely common in the real-world when people witness or otherwise learn about others' empathy. If people vicariously experience these empathic responses from others and this subsequently facilitates changes in moral attitudes, this would indicate that the link between empathy and morality is wider than often assumed and may permeate situations where people respond to others' empathy.

Second, secondhand empathy may provide an alternative pathway to moral concern when firsthand empathy is difficult to achieve. Empathy is often viewed as cognitively and emotionally costly and can thus fail when people are unmotivated or unwilling to empathize with victims (Cameron & Payne, 2011; Cameron et al., 2019). These barriers to empathy have resulted in many efforts to motivate empathy through interventions (Weisz et al., 2020). For example, a person may be unwilling to empathize with the suffering of animals because they enjoy eating meat or believe that animals do not have minds (e.g., Loughnan et al., 2014; Rothgerber & Rosenfeld, 2021). They may, however, be willing to empathize with another person's empathy for animals, providing a springboard to care about animal suffering themselves and an alternative pathway to moral concern. If secondhand empathy facilitates moral beliefs and sometimes offers fewer inhibitors than firsthand experience, this experience can be leveraged to motivate concern for a variety of issues.

#### **Moralization of Attitudes**

To explain how secondhand empathy may contribute to the moralization of attitudes, we will first provide an overview of what moralization is and how it occurs. Rozin et al. (1997) first defined moralization as the process by which preferences come to be viewed as moral values, which can occur at either an individual or cultural level. A common example of moralization is the smoking of tobacco: for years this action was viewed as a preference, but it gradually took on moral value as the harmful side effects of smoking became more apparent (Rozin, 1999). Attitudes take on several unique qualities when they become moralized: they become viewed as universally applicable (i.e., pertaining to norms and rules that all people should adhere to),

objectively right and wrong, and they elicit stronger emotional responses (Goodwin & Darley, 2012; Skitka, 2010; Skitka et al., 2021; van Bavel et al., 2012).

Rhee et al. (2019) further distinguish between two varieties of moralization: moral recognition and moral amplification. Moral recognition aligns with the initial definition of moralization offered by Rozin et al. (1997): attitudes move from a morally neutral state (i.e., a matter of preference) to a morally relevant state (i.e., a matter of right and wrong). For example, in moral recognition, smoking is initially viewed as irrelevant to morality but comes to be viewed as morally wrong. However, moralization can also occur when existing moral judgments become more extreme (moral amplification). In moral amplification, a person may already believe smoking is wrong but come to make this judgment with greater extremity. Moralization can further be oriented around specific actions (i.e., beliefs that a behavior is morally right or wrong), broader moral/political attitudes (i.e., a belief becomes part of one's moral values), or particular groups or entities that one previously viewed with moral indifference (e.g., acquiring the belief that animals deserve rights; Rhee et al., 2019).

How does this process of moralization unfold? In the "push-pull" model of moralization, certain factors *push* people towards moralization and other factors *pull* people away from it (Feinberg et al., 2019). In this model, a variety of moral emotions and cognitions push people towards moralization. Emotions found to contribute to moralization include disgust (Horberg et al., 2009; Wheatley & Haidt, 2005), shame/guilt (Tangney, 1999), and compassion (Goetz et al., 2010). Cognitions that produce moralization include perceptions of harm (Schein & Gray, 2018) as well as moral piggybacking: connecting an issue at hand with one's already held moral principles (e.g., connecting the issue of animal suffering to the belief that one should avoid inflicting harm on others; Rozin et al., 1997).

Providing empirical support for the push-pull model, a set of longitudinal studies by Feinberg et al. (2019) examined how beliefs about animal rights became moralized as students participated in courses discussing the meat industry, finding that moral emotions (including feelings of compassion for animals), moral piggybacking, and perceptions of harm mediated effects of exposure to animal suffering on moralization of animal rights. They also found evidence for motivational factors that block or "pull" people away from moralization, such as dissonance-reduction (e.g., substantiating the belief that animals do not feel pain) and hedonic motivations (e.g., pleasure from eating meat). We should note that moralization in this study was defined as moral recognition – moving from a morally neutral to morally relevant stance – rather than moral amplification, although it has been suggested that moral recognition and amplification may involve similar underlying mechanisms (Rhee et al., 2019).

The findings from Feinberg et al. (2019) indicate that moralization is associated with several emotional and cognitive processes, including feelings of compassion for victims. While empathy in this study was examined in terms of firsthand emotional responses – participants reported their level of compassion and concern for animals directly – it is possible that secondhand reactions played a part as well, given that students participated in courses with other students and presumably were able to witness others' empathic responses. In the following sections, we will discuss how empathy may play a role in moralization in general and when applied to secondhand contexts.

### **Empathy and Moralization**

### **Defining Empathy**

Researchers often disagree about the precise definition of empathy and its various components (Batson, 2009; Cuff et al., 2016; Decety & Cowell, 2014; Hall & Schwartz, 2022),

but it is often viewed as consisting of multiple related but distinct phenomena (Batson, 2009; Preston & de Waal, 2002). We will use a common definition of empathy that considers it a broad concept with three distinct facets: 1) experience-sharing, which refers to the vicarious experience of others' internal states (feeling happy when another person is happy, feeling distressed when another person is distressed, etc.), 2) compassion – also referred to as empathic concern – which refers to concern for the welfare of a person in distress along with a motivation to relieve this distress, and 3) perspective-taking – also referred to as "cognitive empathy" – which refers to understanding and making inferences about others' mental states, and can include mentalizing processes such as theory of mind (Batson, 2011; Goetz et al., 2010; Decety & Cowell, 2014; Zaki, 2014; Zaki & Ochsner, 2012). Although these facets of empathy are separable, they are not always independent. For example, imagining another's perspective (perspective-taking) could facilitate vicarious experience of their internal state (experience-sharing), or vicarious experience of another's emotions could lead to greater concern for their welfare (compassion). Thus, these facets are distinct but related (Batson, 2009).

### **Empathy and Moralization**

Empathy is broadly associated with morality. Morality is an important feature of social living because it promotes social norms and rules that are essential to human cooperation (Rai & Fiske 2011; Janoff-Bulman et al., 2009). By allowing for inferences about others' mental states, attunement to others' suffering, and concern for others' welfare, empathy is often an impetus for human cooperation (de Waal, 2008). As a result, it has been suggested that empathy and morality evolved concurrently (Decety & Cowell, 2014) and that empathy is key to how morality develops throughout childhood (Eisenberger, 2005; Hoffman, 2001).

Empathic emotions (e.g., emotional responses to sharing others' experiences,

compassion) in particular are associated with the ascription of moral value to victim suffering, suggesting that they often prompt moral recognition. Empathic emotional responses often arise when one values another person's welfare and this person is perceived to be in need, meaning that moral value leads to empathy (Batson et al., 1992; Batson et al., 2007). This relationship is also bidirectional: when a person feels empathy for another, they may infer from these feelings that they value the victim's suffering through a "backwards-inference" process, leading to a more general valuation of this suffering and empathic responding to similar types of victims in the future (Batson et al., 1995). This idea is consistent with the aforementioned findings of Feinberg et al. (2019), where compassion for animal suffering prompted valuation of the welfare of animals and thus the recognition of animal rights as a broader moral issue.

Empathy may further contribute to moralization by strengthening moral judgments. By attuning one to the suffering of others, empathy may amplify the perceived harmfulness of an action. Increasing perceptions of harm can contribute to more moralized attitudes, as it is often argued that harm perceptions are the most critical component of moral judgment (Schein & Gray, 2016; Schein & Gray, 2018). Consistent with this idea, empathic concern is associated with greater endorsement of moral principles (Hannikainen et al., 2020) and can produce greater moral outrage and endorsement of punishment (Pfattheicher et al., 2019), suggesting that empathic emotions can amplify moral judgments.

### **Empathy Facets Involved in Moralization**

Given that empathy consists of multiple facets, how might each of these differently contribute to moralization? Recall that empathic emotions can produce value judgments through backwards inference (Batson et al., 1995) and were found to be critical in producing moralized beliefs (Feinberg et al., 2019). As discussed, this suggests that emotional responses to others' suffering are most likely to elicit moralization, which would refer to the experience-sharing and compassion facets of empathy.

When examining firsthand empathy, prior studies have primarily focused on compassion (feelings of concern for another; Batson et al., 1995; Feinberg et al., 2019). In addition to compassion, experience sharing may play a role in producing moralized attitudes by allowing a person to simulate another's internal psychological state more effectively and experience it themselves. This simulation may provide greater contact with a victim's experience of suffering, providing more attunement to potential harm to the victim and thus heightening moral responses.

Experience sharing may also broadly strengthen one's emotional response to the victim's suffering. Strong emotions can amplify moral judgments (Horberg et al., 2011) and often work together with perceptions of harm to shape moral attitudes (Gray et al., 2022), meaning that the emotions created by sharing in another's suffering may strengthen one's judgments regarding that suffering. However, experience sharing may also be a weaker elicitor of moralization than compassion. It has been argued that compassion is often a more optimal response to victim suffering, given that it is more oriented towards relieving the suffering of a victim compared to other facets of empathy (Bloom, 2017). It may be that because compassion is defined by motivation to help a victim, it is more likely to produce moralized attitudes towards that victim.

Given the role of empathic emotions in moralization of suffering (e.g., Batson et al., 1995), perspective-taking – which is usually viewed as less emotional and more cognitive in nature – may be less likely to produce moralized judgments than experience sharing or compassion. However, taking a victim's perspective may facilitate perceptions of harm and/or moral piggybacking, cognitive judgments that can cause moralization (Feinberg et al., 2019).

Furthermore, perspective-taking can lead to emotional responses. "Imagine-self" perspectivetaking, where one imagines oneself in the place of another person, can lead to heightened distress and egoistic responses (Batson, Early, & Salvarani, 1997; Buffone et al., 2017). Conversely, "imagine-other" perspective taking, where one imagines the other's perspective without involving the self, often produces compassion (Batson et al., 2003; Lamm et al., 2007). Thus, perspective-taking – particularly imagine-other – may lead to moralization by facilitating other emotional facets of empathy.

### **Secondhand Empathy and Moralization**

Prior literature indicates that emotional empathy plays a particularly prominent role in moralization. The purpose of the current research is to test whether empathic emotions play a similar role when expanding beyond dyadic contexts. To do so, we examine empathy in extradyadic contexts involving three individuals: a victim, an empathizer, and a secondhand empathizer. We will next outline the empathic and non-empathic elicitors that may spur moralization in these extradyadic contexts. By empathic elicitors, we mean those that facilitate moralization as a result of showing empathy for an empathizer. For instance, a person may witness another's emotional empathic response to a victim and begin to take on this emotional response themselves via experience-sharing, prompting empathy for the victim's suffering and moralization in oneself. We focus primarily on *emotional* empathic responses here – given precedence in the literature – though we acknowledge that moralization of harm in secondhand contexts may also be facilitated by non-emotional responses that are nonetheless empathic (e.g., cognitively taking the perspective of an empathizer). See section below for elaboration on how we are conceptualizing secondhand empathic elicitors.

Non-empathic elicitors refer to responses to an empathizer's empathy that may spur moralization even if one does not empathize with this empathizer. Witnessing an empathizer could facilitate perceptions of harm to a victim and/or provide a social signal that one should empathize with the victim as well. Non-empathic processes likely often co-occur with empathic processes: for example, when witnessing an empathizer's empathy, a person could view this response as a social signal while also attempting to vicariously experience this response. We elaborate on these empathic and non-empathic processes below.

### **Secondhand Empathic Elicitors**

When conceptualizing empathy in a secondhand context, we focus primarily on *experience-sharing* with an empathizer, given that we expect that directly experiencing an empathizer's emotions would make it most likely that a person would subsequently direct these emotions towards the victim themselves. Thus, when using the term "secondhand empathy," we are referring to this vicarious experience of an empathizer's emotional responses, though we acknowledge that this term could be used to refer to other empathy facets in secondhand contexts (i.e., feeling concern or taking the perspective of an empathizer).

Because empathy is multifaceted, there are complexities in defining what an "empathizer" is: a person could qualify as an empathizer by either feeling what another person feels, feeling compassion or empathic concern for another, taking another's perspective, or some combination of three. In this paper, we focus primarily on empathizers who demonstrate emotional responses to victim suffering (i.e., feelings of compassion or experience-sharing with victims), versus more cognitive responses (e.g., taking the perspective of a victim without any emotional response). As mentioned, prior studies on empathy and moralization have primarily focused on these empathic emotions (in contrast to more cognitive, mentalizing processes such as perspective-taking; Zaki & Ochsner, 2012). Given this precedence in the literature, we take a similar approach and focus on emotional responses from empathizers while acknowledging that "empathizer" can take a variety of forms.

The key question here is whether an empathizer's empathic emotional response to a victim (i.e., an empathizer's compassion for a victim, or their vicarious experience of the victim's emotions) can transfer from one person to another as a result of vicariously experiencing this response through experience-sharing. This idea rests on the assumption that empathic emotions can be empathized with themselves. While there is some research examining how empathy may involve different processes depending on what kinds of emotions are involved (e.g., empathy for positive versus negative emotions; Morelli et al., 2015), to our knowledge, there is no research comparing empathy for empathic emotions to empathy for non-empathic emotions. However, it seems reasonable that people would have a similar ability to empathize with empathic emotions as they would with other emotions. People can empathize for a wide variety of psychological states in others, such as behaviors, judgments, or emotions (Preston & de Waal, 2002). In addition, it has been argued that empathic emotion is not a separate phenomenon from emotion in general and involves similar processes as other firsthand emotional experiences (Wondra & Ellsworth, 2015). Thus, just as a person can view another person feeling distress and feel distress themselves, a person can perhaps view a person feeling empathy and feel empathy themselves.

Because of the link between empathy and moralized attitudes, vicariously experiencing another's empathy may similarly prompt moralization. This may occur through multiple sequential steps: 1) a person begins by vicariously experiencing an empathizer's emotional response to a victim, 2) this vicarious experience facilitates emotional responses to the victim in oneself, and 3) these empathic emotions subsequently facilitate moralization of harm to the victim. Notably, it is possible that one can vicariously experience an empathizer's emotions but not actually respond empathically to the victim: greater experience-sharing for empathizers may not directly translate to greater empathic emotions for victims. Because empathic emotions often contribute to moralization (Batson et al., 1995; Feinberg et al., 2019), this may mean that sharing an empathizer's experience does not contribute to moralized attitudes unless such experience-sharing successfully instantiates emotional responses to victims in oneself. Thus, the degree to which experience-sharing for empathizers facilitates greater empathic emotional responses to victims may be a critical component of the secondhand empathy-morality link.

We reiterate that we describe this process primarily in terms of a person's vicarious experience of an empathizer's *emotional* response to a victim. However, we should note that experience-sharing with empathizers may not strictly involve experiencing an empathizer's emotions. While experience-sharing is usually described in terms of vicarious experience of others' emotions (e.g., Decety & Cowell, 2014), it could theoretically also include vicarious experience of a person's thoughts, beliefs, or attitudes. By showing empathy for a victim, an empathizer may be viewed as endorsing the belief that the victim's suffering should be met with empathy; when a person attempts to take on this empathizer's internal state, they may look to take on these beliefs in addition to the empathizer's emotional response. This "belief-sharing" may foster moralization even if one is not vicariously experiencing the empathizer's emotions. While not a primary goal, in the current research (i.e., Study 3) we look to differentiate between sharing an empathizer's emotions versus sharing an empathizer's beliefs and compare how each may contribute to moralization. We do so in order to better clarify the role of secondhand empathic emotions in particular in shaping moral outcomes.

## **Secondhand Non-Empathic Elicitors**

### Social Norms

Because secondhand empathy involves multiple social actors, it introduces the potential of social norms to produce moralization. People are strongly swayed by social norms and social norm interventions are frequently used to motivate desirable behaviors (Cialdini & Goldstein, 2004; Schultz et al., 2007). Furthermore, social norms and contexts often influence beliefs about what is morally right or wrong (Rai & Fiske, 2011). Social norm interventions typically utilize descriptive norms, which provide information about what others think or how they behave, or injunctive norms, which provide information about how people *should* think or behave (Cialdini, 2003). Norms about morality can additionally be divided into prescriptive (what a person should *not* do) norms (Janoff-Bullman et al., 2009).

Social norms can broadly influence moralization, such as by shaping how people assign blame and praise (Monroe et al., 2018), decisions to punish others for morally deviant behavior (Lindstrom et al., 2018), and by strengthening implicit associations between what others typically do and what is believed to be morally right (Eriksson et al., 2015). Social norms further influence empathy: when others exhibit empathy, this can lead people to be more empathic themselves (Nook et al., 2016; Weisz et al., 2020). Social norms further influence empathy by indicating where a person should direct their empathy – which acts of harm should elicit empathy towards a victim (Decety & Yoder, 2017), or which individuals or groups people should empathize with (Tarrant et al., 2009).

The presence of an additional empathizer may lead to moralization effects by providing a signal of both descriptive and injunctive norms: seeing another person direct empathy towards a victim may provide a social signal that the victim's suffering should be met with empathy. The

strength of this social signal may further depend on one's relationship to the empathizer: social cues can be more potent when provided by close others (e.g., friends, family) than strangers or distant others (Christensen et al., 2004). Although the current research is focused on secondhand empathy involving only one empathizer, effects of secondhand empathy may additionally depend on the quantity of empathizers involved given greater capacity for social influence. The knowledge that 100 people feel empathy towards a victim would likely provide a stronger social cue than the knowledge of only one empathizer (e.g., Gerard et al., 1968).

### Harm

The presence of a secondhand empathizer may also facilitate perceptions of harm, a key facet of moral judgment (Schein & Gray, 2018) and a cognitive input to moralization (Feinberg et al., 2019). It has been argued that harm perceptions occur through a dyadic structure, where there is a perceived perpetrator (a moral agent) inflicting harm upon a victim (a moral patient); when each of these three components are present (an agent, harm, and patient), an act is viewed as morally wrong (Schein & Gray, 2018). Importantly, viewing one of these components in isolation often facilitates perceptions of other components, prompting one to perceive a scenario as morally relevant. For example, when one perceives a victim of harm – even if there is no clear perpetrator – they often will "fill in the gaps" so to speak by searching for a perpetrator (i.e., dyadic completion; Gray et al., 2014; Gray & Wegner, 2010). Similar processes may be at play when witnessing an empathizer: the knowledge that a person is empathized with may signal that harm has occurred to this person, providing a cue that the scenario is morally relevant.

### The Role of Empathic and Non-Empathic Elicitors in Secondhand Empathy

When witnessing an empathizer, empathic responses to this empathizer likely co-occur with non-empathic responses. In other words, the presence of an empathizer may provide potential cues about social norms and perceptions of harm, while experiencing this empathizer's internal state may facilitate greater empathy for the victim; these different elicitors may work together to moralize attitudes.

Given that we are focused on secondhand empathic emotions, a key question is whether these emotional responses uniquely strengthen moral judgments above and beyond other inputs. If the presence of an empathizer elicits perceptions of harm and social cues about morality, the simple awareness that another person empathizes with a victim may produce moralization regardless of whether one vicariously experiences this response. In this case, secondhand empathy effects would not be secondhand *empathy* per se, but rather secondhand awareness that the victim is the recipient of another person's empathy. In the current research, we will test this prediction empirically by comparing vicarious experience of an empathizer's emotions to secondhand awareness of an empathizer's emotions in their ability to shape moral evaluations.

#### **The Present Research**

In three studies, we test the hypothesis that secondhand empathy influences moralization of harm to a victim. In Study 1, we compare how experiencing another person's empathic response to a victim (secondhand empathy) influences empathic concern and moralization compared to experiencing a victim's internal state directly (firsthand empathy) and compared to two control conditions, where participants are instructed to emotionally detach themselves from empathizers or victims. While our central research question deals with how secondhand empathy may influence moralization, we also test whether secondhand empathy increases empathic concern (or compassion) for victims to examine if secondhand empathy can successfully foster empathic emotional responses to victims in oneself. In Study 2, we provide a stronger test of our primary hypothesis by comparing secondhand empathy to a secondhand no-instruction control, where participants are presented with empathizers but are not provided explicit empathy or detachment instructions. Finally, in Study 3, we expand on this idea by examining two primary questions: 1) whether the degree to which secondhand empathy shapes concern and moralization depends on how much empathy a person extends to a victim at baseline, and 2) whether secondhand empathy can increase concern and moralization for victims who belong to stigmatized groups. We examine these questions by comparing effects of secondhand empathy between stigmatized and non-stigmatized victims. By examining these questions, this set of studies provides the first investigation into secondhand empathy.

We also included several ancillary measures across Studies 1-3 to examine exploratory research questions. First, we measured individual differences in empathy in Studies 1-3 to examine if a person's trait level of empathy influences how they respond to secondhand empathy manipulations. Although we did not have strong predictions here, we may tentatively predict, for example, that participants higher in trait empathy are more amenable to empathy inductions and thus more responsive to secondhand empathy manipulations. Alternatively, empathy effects may be stronger for people lower in trait empathy: people who are less inclined to empathize by default may require greater explicit instruction to override this lower inclination. We test these predictions across Studies 1-3. Second, we measured participants' perceived cognitive effort while completing the studies. Empathy in firsthand contexts is often perceived as cognitively effortful (Cameron et al., 2019), and thus we were interested in whether people view secondhand empathy as effortful in general (i.e., when compared to control conditions) and whether there are meaningful differences in effort when comparing secondhand to firsthand empathy.

# **Preliminary Data**

Prior to Studies 1-3, we conducted a pilot study on Amazon Mechanical Turk through CloudResearch (Litman et al., 2017). The purpose of this study was to provide an initial and exploratory investigation of how secondhand empathy may differ from firsthand empathy in the amount of moralization and concern extended towards a victim, as well as to pilot test an experimental paradigm examining this question. Based on the results of this study, we made several adjustments to materials, methods, and measures in Studies 1-3 (described in the "Discussion" below), and thus consider this pilot study to be supplemental to the main studies.

# Method

## **Participants**

We recruited 317 participants from Amazon Mechanical Turk ( $M_{age} = 42.23$ ,  $SD_{age} = 13.07$ ; 51.42% men, 47.95% women, 0.63% non-binary) via CloudResearch. We recruited participants from the United States who had 1000 approved HITS and at least a 95% approval rating. We additionally used features on CloudResearch to block suspicious geolocations and prevent participants from completing the study more than once. Participants were excluded from analyses if they provided an open-ended response that was clearly unrelated to the prompt for at least one vignette. Additionally, there were four participants who completed the study twice; for each of these repeat participants, their second recorded response was excluded from analyses. Following these exclusions, there was a final *N* of 305 ( $M_{age} = 42.22$ ,  $SD_{age} = 13.20$ ; 50.82% men, 48.52% women, 0.66% non-binary).

### Procedure

Participants read 8 vignettes adapted from Knutson et al. (2010). Each vignette involves a person describing a past moral transgression that they committed, written from a first-person

perspective. These vignettes, which were written by actual study participants recruited by Knutson et al. (2010), are intended to capture naturalistic moral violations encountered in day-today life. We used vignettes that were categorized as "morally ambiguous" in a prior study by Bambrah et al. (2022), meaning that they were rated by participants as less clearly harmful and morally inappropriate compared to other vignettes. We opted to use these morally ambiguous vignettes so that participants would have some flexibility in their empathic and moral responses to the transgressions.

Participants completed 8 trials (one trial per vignette) and were randomly assigned to one of three conditions: firsthand empathy (N = 110), secondhand empathy (N = 86), and control (N = 109). On the first screen of each trial, participants were shown the vignette for that trial and were instructed to read it carefully. As an example, one vignette read as follows: "*I left my second marriage and I left my step-kids there too*. *My youngest stepson, Chris, has some disabilities, but I left him there. I cannot cope with his druggy, drinking father and so I decided to leave everything behind*." For each of these vignettes, a name was included alongside the target victim (e.g., "Chris"), so participants could easily identify this target while completing the empathy portion of the task.

On the second screen, participants were shown an image of a person (using images from the Chicago Face Database; Ma et al., 2015). In the *firsthand empathy* condition, participants read that this image was of the target in the vignette and were instructed to empathize with this person. In the *secondhand empathy* condition, participants were told that this image was of a person who feels empathy for a person in the scenario and understands how they feel; participants were instructed to empathize with this person. In the *control* condition, participants were instructed to objectively describe the target in the vignette. The vignette remained displayed on the screen as participants completed this portion of the task. The wording of these manipulations and the vignettes and images used in each trial can be located in the Appendix.

#### Measures

On each trial, participants rated how much empathy and sympathy they felt for the victim in the vignette on a 1-7 Likert scale; these measures were highly correlated (r = 0.92) and were averaged together to form an empathy index. Participants also completed the five-item moralization measure from Feinberg et al. (2019). The scale was highly reliable ( $\alpha = 0.95$ ). The empathy and moralization measures were also highly correlated (r = 0.68), but we chose to analyze them separately given that empathy and morality are conceptually distinct.

## Results

### *Empathy*

There was an overall effect of condition on empathy, F(2, 302) = 10.32, p < .001,  $\eta^2 = 0.06$ . Follow-up comparisons using a Bonferroni correction (i.e., multiplying *p* values by 3) revealed that participants in the secondhand (M = 5.05, SD = 1.09) and firsthand (M = 5.27, SD = 0.90) conditions both reported higher feelings of empathy than participants in the control condition (M = 4.66, SD = 1.05), while there was no significant difference in empathy ratings between the secondhand and firsthand empathy conditions. See Table 1 for inferential statistics and Figure 1 for empathy ratings by condition.

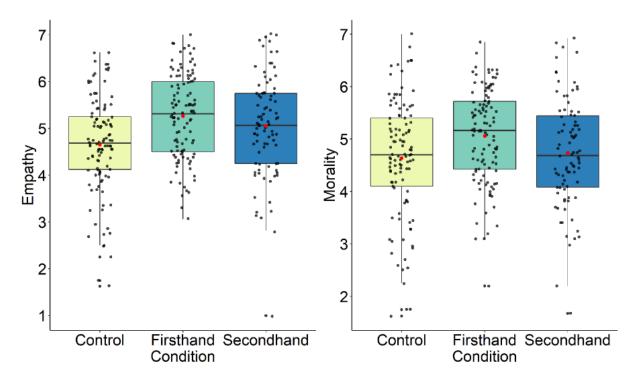
### **Moralization**

There was an overall effect of condition on moralization, F(2, 302) = 5.01, p = .007,  $\eta^2 = 0.03$ . Follow-up comparisons revealed that participants in the firsthand empathy condition (M = 5.06, SD = 0.90) rated the scenarios as more morally relevant than participants in the second hand empathy (M = 4.74, SD = 1.03) and control (M = 4.64, SD = 1.13) conditions, while there was no

difference in moralization ratings between the firsthand and secondhand empathy conditions. See Table 2 for inferential statistics and Figure 1 for morality ratings by condition.

# Figure 1

Empathy and Moralization Ratings by Condition – Pilot Study



*Note*. Boxplots displaying the mean (red dot), median (horizontal line), and interquartile range (vertical box) for empathy (left) and morality (right) ratings between conditions.

# Table 1

# Pairwise Comparisons for Empathy Ratings – Pilot Study

Contrast	Mean Difference	SE	df	t	р	d
Secondhand vs. Control	0.40	0.15	302	2.73	.020	0.37
Secondhand vs. Firsthand	0.22	0.14	302	1.48	.417	0.22
Firsthand vs. Control	0.61	0.14	302	4.49	<.001	0.63

Note. P values are adjusted to account for multiple comparisons using a Bonferroni correction; thus, each p is

multiplied by 3 from its original value.

### Table 2

Contrast	Mean Difference	SE	df	t	р	d
Secondhand vs. Control	0.10	0.15	302	0.67	1.000	0.09
Secondhand vs. Firsthand	0.32	0.15	302	2.19	.088	0.34
Firsthand vs. Control	0.42	0.14	302	3.04	.008	0.41

Pairwise Comparisons for Moralization Ratings – Pilot Study

*Note.* P values are adjusted to account for multiple comparisons using a Bonferroni correction; thus, each p is multiplied by 3 from its original value.

### Discussion

This pilot study indicates that secondhand and firsthand empathy instructions may increase empathy for victims when compared to a control condition; however, only firsthand empathy instructions increased moralization relative to control. This study featured a few potential methodological limitations that we looked to correct in Study 1. First, within the secondhand empathy condition, participants were provided with little context on the empathizer: they were simply shown an image of this person and told that they responded with empathy. We presented empathizers in this manner to reduce the possibility that the context surrounding the empathizer would meaningfully impact the strength of experimental effects. However, this lack of context may have made it more difficult to imagine the internal experience of the empathizer, as participants may have wondered who the empathizer was and/or what their relationship was to the victim in the scenario. Second, the use of ambiguous scenarios may have made it more difficult to find clear effects of secondhand empathy manipulations on moralization because the ambiguity of the scenario may have created less room to perceive clear and direct harm to a victim. While the secondhand empathy manipulation may have increased participants' concern for victims (relative to control), the ambiguity of the scenarios may have made it difficult for participants to morally evaluate them even under secondhand empathy instructions.

In follow-up studies, we looked to address these limitations by providing more context surrounding the empathizer targets, developing a more immersive experimental paradigm, and by using clear and unambiguous moral violations involving direct harm to a victim. Finally, we only included measures of moralization and empathy in this study and did not test the efficacy of the experimental manipulations (i.e., we did not include manipulation checks): in follow-up studies, we looked to include a wider set of relevant measures. We additionally measured empathy in a broad manner in this study (i.e., by asking participants to rate their level of "empathy" and "sympathy" towards a victim); because we are interested in how secondhand empathy may foster concern for victims, we directly measure empathic concern in Study 1.

### Chapter 2

### Study 1

The goal of Study 1 was twofold. First, we looked to test whether secondhand empathy increases moralization and empathic concern for victims compared to a control. We examined this question experimentally by presenting participants with two targets – victims and empathizers – and manipulating whether participants were instructed to vicariously experience the empathizers' internal experience (secondhand empathy) or emotionally detach themselves from it (secondhand detachment). To test for effects of empathy inductions, researchers have historically compared empathy instructions to (as a control) instructions to emotionally detach oneself from a target (Batson, Sager, et al., 1997). Thus, in the current study, we apply this common comparison within the empathy literature to secondhand targets. Second, we looked to compare secondhand empathy effects to firsthand empathy effects. Along with manipulating secondhand empathy vs. secondhand detachment, we manipulated whether participants were instructed to vicariously experience victims' internal experience (firsthand empathy) or remain emotionally detached from it (firsthand detachment). Thus, this study followed a 2 (Empathy Instructions: Empathy vs. Detachment) x 2 (Target: Empathizer vs. Victim) design.

Our primary prediction was that both secondhand and firsthand empathy instructions would increase concern for victims and moralization relative to secondhand and firsthand detachment (i.e., a main effect of empathy instructions on moralization and empathic concern). We additionally tested whether effects of empathy instructions varied depending on whether participants were presented with empathizers or victims (i.e., an interaction between empathy instructions and target type). For example, it is possible that empathy effects only occur for victim targets, which would fail to provide support for effects of secondhand empathy. Alternatively, empathy effects may be present for both target types but be stronger when directed towards victim targets. This would provide support for effects of secondhand empathy but would suggest that these are relatively weaker than effects of firsthand empathy.

Finally, we tested whether, collapsing empathy instructions, participants show greater moralization and concern when presented with victims vs. empathizers (i.e., a main effect of target type). While we did not have strong predictions regarding this effect, we tentatively expected that participants may show greater moralization and concern when presented with victim (vs. empathizer) targets given that participants are directly engaging with victims of harm.

### Method

This study and all subsequent studies were approved by Pennsylvania State University's Institutional Review Board.

### Design

This study followed a 2 (Empathy Instructions: Empathy vs. Detachment) x 2 (Target: Empathizer vs. Victim) between-subjects design. Participants were instructed to empathize with (N = 210) or remain emotionally detached from (N = 184) a victim of harm (N = 202) or a person who empathized with this victim (N = 192). Conditions were randomly assigned using the randomizer function on Qualtrics; the "evenly present elements" box was left unchecked to ensure true random assignment.

### **Participants**

We recruited 400 participants from Prolific ( $M_{age} = 39.23$ ,  $SD_{age} = 13.06$ ; 51.50% men, 45.25% women, 1.75% non-binary). Participants were automatically prevented from completing the study twice. Participants were excluded from analyses if they provided an open-ended response that was either blank or clearly unrelated to the prompt on at least one trial of the task. Following these exclusions, there was a final *N* of 394 ( $M_{age} = 39.21$ ,  $SD_{age} = 13.01$ ; 51.27% men, 45.43% women, 1.78% non-binary).

Prior to determining sample size, we analyzed power using the "superpower" package in R, which uses a simulation-based approach to estimating power (Lakens & Caldwell, 2021). We assumed a significant main effect for both independent variables as well as a significant interaction. Across 1000 simulations, our sample size achieved at least 80% power to detect a small effect ( $\eta_p^2 = 0.02$ ) for each of these effects (see Appendix for detailed parameters).

## Procedure

We designed an experimental paradigm where participants read and responded to participants from an ostensible prior research study on listening and empathy. At the start of the study, participants read that during this previous study, pairs of strangers talked to each other. One person (the "victim" target) discussed a past negative experience and described what the experience was like while the second person (the "empathizer" target) described what it was like to listen. Participants in the current study were then told that they will read about several of these pairs. The study was setup in this manner to help reduce potential assumptions about prior relationships or associations between the empathizer and victim targets – which may influence responses – as well as to enhance immersion by presenting scenarios as genuine empathic interactions between two individuals.

Participants completed eight individual trials. On the first screen of each trial, participants read about a victim target who described a past scenario where they were a victim of harm. We created these scenarios by adapting vignettes from the Moral Foundations Vignettes (Clifford et al., 2015). We used scenarios from the "harm" category (i.e., one person physically or emotionally harms another person) that were rated as moderately morally wrong (i.e., they

received around a 3 out of 5 rating of moral wrongness; see Appendix for scenarios) in Clifford et al. (2015)'s data. Participants also read about a second target who empathized with the victim. For example, the description on one trial read: "Alan described how a friend laughed at him when he realized Alan's dad was the janitor. Charles listened to him, felt for him, and understood how he felt." In this example, Alan reflects the victim, while Charles reflects the empathizer.

On the same screen, participants were shown an image of a person (images were taken from the Chicago Face Database; Ma et al., 2015). In the *victim* condition, they were told that the image was of the victim in the scenario (e.g., "Alan"); in the *empathizer* condition, they were told that the image was of the empathizer (e.g., "Charles"). To enhance immersion and believability of the scenarios, participants were also provided with an ostensible excerpt from what the target said during the study. For example, for the scenario involving Alan, participants in the victim condition read that Alan said: "I felt betrayed and humiliated being laughed at by my friend like that." In the empathizer condition, participants read that Charles said "It's embarrassing to be picked on by your friend. I felt sorry for Alan." These excerpts were developed by the researchers and undergraduate research assistants and can be located in the Appendix. Participants in the *empathy* condition were then told that on the next page, they would be instructed to either feel what the victim feels (in the victim condition) or feel what the empathizer feels (in the empathizer condition).

On the second screen of each trial, participants in the *empathy* condition were instructed to imagine what the victim (in the victim condition) or empathizer (in the empathizer condition) was feeling and to feel this themselves. In the *detachment* condition, participants were instructed to describe the victim (in the victim condition) or empathizer (in the empathizer condition) objectively while remaining emotionally detached. Participants were then instructed to write one or two sentences about what the target is feeling or to write one or two sentences describing the target, depending on condition. The victim and empathizer descriptions, harm scenarios, and images from the previous page remained on screen as participants completed this part of the trial.

The wording of the empathy and detachment manipulations were adapted from common empathy manipulations in prior work (e.g., Batson, Sager, et al., 1997). When describing empathizers, we used similar wording as Wang and Todd (2021). We chose these empathizer descriptions because of this precedence in the literature and because they are not restricted to a single facet of empathy (i.e., mentioning that the target "feels for" and "understands" the victim implies a combination of experience sharing, compassion, and perspective-taking) but include information about the empathizer's emotional response to the victim. In addition, the excerpts from empathizers were designed to emphasize the empathizers' emotions (e.g., "I felt sorry for [victim]," "I felt bad for [victim]"). Thus, these instructions allow us to generally examine people's responses to an empathizer's empathic emotions, though these emotions could consist of experience-sharing, compassion, or some combination of both. Full scenarios, manipulations, and images can be located in the Appendix.

### Measures

#### Manipulation Checks

Participants completed several measures at the end of each trial. As manipulation checks, participants rated how much they tried to feel what the victim felt and how much they tried to feel what the empathizer felt on a 1-7 scale. We included these measures to test whether people tried to feel what the victims felt more in the firsthand empathy condition (vs. secondhand empathy and the detachment conditions) and whether people tried to feel what the empathizers felt more in the secondhand empathy condition (vs. firsthand empathy and detachment

conditions). This would verify whether people in the firsthand empathy conditions correctly followed instructions to attempt to empathize with victims, and whether people in the secondhand empathy conditions correctly followed instructions to attempt to empathize with empathizers.

### **Primary Dependent Variables**

We measured moralization of the harm scenarios and empathic concern for victims as our primary dependent variables. To measure empathic concern, participants rated how upset they felt for the victim on a 1-7 scale. To measure moralization, participants completed a five-item (1-7 scale) moralization scale ( $\alpha = 0.93$ ) adapted from Feinberg et al. (2019), where participants responded to several questions regarding their moralization of the vignette (e.g., "To what extent is this scenario connected to your feelings of right and wrong?"; "To what extent do you think this scenario describes a moral issue?").

### Ancillary/Exploratory Measures

Participants rated their empathic concern for the empathizer on each trial, which was measured in the same manner as empathic concern for the victims. We included this measure to test whether condition influenced how much concern people felt for empathizers along with victims; however, because there may be differences in how people interpret this question when directed to empathizers (i.e., it may be difficult to report "concern" for empathizers given that they are not themselves victims of harm), we consider this measure to be primarily exploratory. After completing all trials, participants rated their felt level of mental demand, effort, negative affect, and efficacy during the task on a 1-5 scale using items from the NASA Task Load Index (Hart & Staveland, 1988). These items were included to test for any differences in perceived cognitive effort across conditions. The demand and effort items were strongly correlated (r = 0.60) and combined into a single effort index (similar to prior work; Cameron et al., 2019).

Finally, we included the empathic concern ( $\alpha = 0.87$ ) and perspective-taking ( $\alpha = 0.80$ ) sub-scales of the Interpersonal Reactivity Index (Davis, 1983) to test whether individual differences in empathy moderate any experimental effects of condition.

#### Results

### **Analysis Strategy**

To analyze effects of condition, we conducted linear regressions using orthogonal contrast coding with target type (Victim = -0.5, Empathizer = 0.5), empathy instruction (Detachment = -0.5, Empathy = 0.5), and their interaction term predicting each dependent variable. This strategy is similar to a two-way, between-subjects ANOVA approach but ensures non-overlapping variance between predictors. We additionally tested whether condition effects were moderated by individual differences by analyzing two models with a three-way interaction term between target type, empathy instruction, and the individual difference measure along with all lower-order interactions.

### **Manipulation Checks**

As a reminder, the manipulation checks asked participants to separately rate how much they tried to feel what victims felt and how much they tried to feel what empathizers felt. There were main effects of empathy instructions on both manipulation checks. In the empathy (vs. detachment) condition, participants reported greater attempts to feel what the victims felt and greater attempts to feel what the empathizers felt. There was also a main effect of target on how much participants reported trying to feel empathy for empathizers: when presented with empathizers (i.e., in the secondhand conditions), participants reported greater attempts to feel what the empathizers felt (vs. when presented with victims in the firsthand empathy conditions). There was no effect of target on how much participants reported trying to feel what victims felt. See Table 3 for inferential statistics and Table 4 for estimated marginal means for main effects.

There was an interaction between target and empathy instruction for the victim manipulation check. When presented with victim targets, participants reported trying to feel what victims felt more in the empathy condition (M = 6.08, SD = 0.78) than in the detachment condition (M = 3.97, SD = 1.88), b = 2.12, t(390) = 9.90, p < .001, 95% CI [1.70, 2.54],  $\eta^2 =$ 0.20. When presented with empathizer targets, participants also reported trying to feel what victims felt more in the empathy condition (M = 5.46, SD = 1.29) than in the detachment condition (M = 4.12, SD = 1.93) but this difference was weaker compared to victim targets, b =1.34, t(390) = 6.14, p < .001, 95% CI [0.91, 1.77],  $\eta^2 = 0.09$ . This result indicates that participants attempted to vicariously experience victims' emotional states more when instructed to feel (vs. detach from) what victims or empathizers felt. This effect of empathy instructions was expectedly strongest when participants were instructed to vicariously experience victim experiences, indicating that they correctly followed instructions to try to feel what victims felt when instructed to do so. Interestingly, this result also suggests that participants reported trying to feel what victims felt more when instructed to vicariously experience (vs. detach from) what empathizers felt.

There was also an interaction between target and empathy instruction for the empathizer manipulation check. When presented with empathizer targets, participants reported trying to feel what empathizers felt more in the empathy condition (M = 5.32, SD = 1.38) than in the detachment condition (M = 3.38, SD = 1.83), b = 1.94, t(390) = 8.03, p < .001, 95% CI [1.47, 2.42],  $\eta^2 = 0.14$ . When presented with victim targets, participants also reported trying to feel

what empathizers felt more in the empathy condition (M = 3.41, SD = 1.80) than in the detachment condition (M = 2.75, SD = 1.64), but this was difference was weaker than for empathizer targets, b = 0.66, t(390) = 2.76, p = .006, 95% CI [0.19, 1.12],  $\eta^2 = 0.02$ . Similar to the victim manipulation check, this result indicates that participants correctly followed instructions to try to feel an empathizers' empathy when instructed to do so (vs. detach), but also reported trying to feel an empathizer's empathy more when instructed to vicariously experience (vs. detach from) victims' experiences.

## Table 3

	b	t	df	р	95% CI	$\eta^2$
Manipulation Check (Victim)						
Target	-0.23	-1.51	390	.132	[-0.53, 0.07]	0.01
Empathy Instruction	1.73	11.32	390	<.001	[1.43, 2.03]	0.25
Target x Empathy Instruction	-0.78	-2.55	390	.011	[-1.38, -0.18]	0.02
Manipulation Check (Empathizer)						
Target	1.27	7.50	390	<.001	[0.94, 1.61]	0.13
Empathy Instruction	1.30	7.67	390	<.001	[0.97, 1.63]	0.13
Target x Empathy Instruction	1.29	3.80	390	<.001	[0.62, 1.96]	0.04

Inferential Statistics for Manipulation Checks – Study 1

*Note*. Effects of Target (Victim = -0.5, Empathizer = 0.5), Empathy Instruction (Detachment = -0.5, Empathy = 0.5),

and the interaction between Target and Empathy Instruction on how much participants reported trying to feel what

the victims felt (Manipulation Check - Victim) and how much participants reported trying to feel what the

empathizers felt (Manipulation Check - Empathizer).

	EMM	SE		EMM	SE
Manipulation Check (Victim)					
Target			Empathy Instructio	n	
Victim	5.03	0.11	Detachment	4.05	0.11
Empathizer	4.79	0.11	Empathy	5.77	0.10
Manipulation Check (Empathizer)					
Target			Empathy Instructio	n	
Victim	3.08	0.12	Detachment	3.06	0.12
Empathizer	4.35	0.12	Empathy	4.36	0.12

### Estimated Marginal Means for Manipulation Checks – Study 1

Note. All values refer to estimated marginal means for each condition when collapsing across the other factor. EMM

= Estimated Marginal Mean, SE = Standard Error.

The results on the manipulation checks overall suggest that peoples' responses to the targets corresponded to the instructions they were provided: people attempted to feel what victims felt more when instructed to do so, and attempted to feel what empathizers felt more when instructed to do so. Notably, instructions to share the experience of (vs. detach from) victims also increased attempts to share the experiences of empathizers (and vice versa), suggesting that secondhand and firsthand empathy instructions increased attempts to share the experience of both targets. However, the interaction effects indicate that firsthand empathy instructions increased attempts to feel what victims felt to a greater degree than secondhand empathy instructions, and that secondhand empathy instructions. Thus, the manipulations more strongly guided people to share the experience of the intended target.

## **Moralization of Harm and Empathic Concern**

See Table 5 for inferential statistics and Table 6 for estimated marginal means for effects of condition on moralization and empathic concern. There was a main effect of empathy

instructions on both moralization and empathic concern for victims: participants gave higher ratings on these variables in the empathy (vs. detachment) condition. There was no main effect of target or interaction between target and empathy instruction for either measure, meaning that empathy instructions increased moralization and concern for victims regardless of whether empathy was directed towards victims or empathizers. In other words, firsthand and secondhand empathy influenced moralization and concern to a similar degree. See Figure 2 and Figure 3 for differences in moralization and empathic concern, respectively, across conditions.<sup>1,2</sup>

### Table 5

	b	t	df	р	95% CI	$\eta^2$
Moralization						
Target	-0.07	-0.59	390	.557	[-0.28, 0.15]	0.00
Empathy Instruction	0.52	4.78	390	< .001	[0.31, 0.74]	0.06
Target x Empathy Instruction	-0.27	-1.21	390	.226	[-0.70, 0.17]	0.00
Empathic Concern (Victim)						
Target	-0.07	-0.53	390	.598	[-0.33, 0.19]	0.00
Empathy Instruction	1.15	8.67	390	< .001	[0.89, 1.42]	0.16
Target x Empathy Instruction	-0.42	-1.58	390	.115	[-0.94, 0.10]	0.01
Empathic Concern (Empathize	r)					
Target	0.45	2.90	390	.004	[0.14, 0.75]	0.02
Empathy Instruction	0.65	4.18	390	< .001	[0.34, 0.95]	0.04
Target x Empathy Instruction	0.56	1.80	390	.073	[-0.05, 1.16]	0.01

Inferential Statistics for Moralization and Empathic Concern – Study 1

*Note*. Effects of Target (Victim = -0.5, Empathizer = 0.5), Empathy Instruction (Detachment = -0.5, Empathy = 0.5),

and the interaction between Target and Empathy Instruction on moralization and empathic concern.

<sup>&</sup>lt;sup>1</sup>There was significant heteroscedasticity in the linear models for most variables. However, the models reported here are likely robust to this violation: see Appendix for full discussion of this issue.

<sup>&</sup>lt;sup>2</sup>Because trials were nested within participant, we conducted multilevel models to examine whether people varied notably by trial in how they responded to the primary dependent variables. Results suggested that the majority of variance resided between-person (see Appendix).

	EMM	SE		EMM	SE
Moralization					
Target			Empathy Instruction		
Victim	5.29	0.08	Detachment	5.00	0.08
Empathizer	5.23	0.08	Empathy	5.52	0.08
Empathic Concern (Victim)					
Target			Empathy Instruction		
Victim	5.18	0.09	Detachment	4.56	0.10
Empathizer	5.10	0.10	Empathy	5.72	0.09
Empathic Concern (Empathizer)					
Target			Empathy Instruction		
Victim	2.52	0.11	Detachment	2.42	0.11
Empathizer	2.96	0.11	Empathy	3.06	0.11

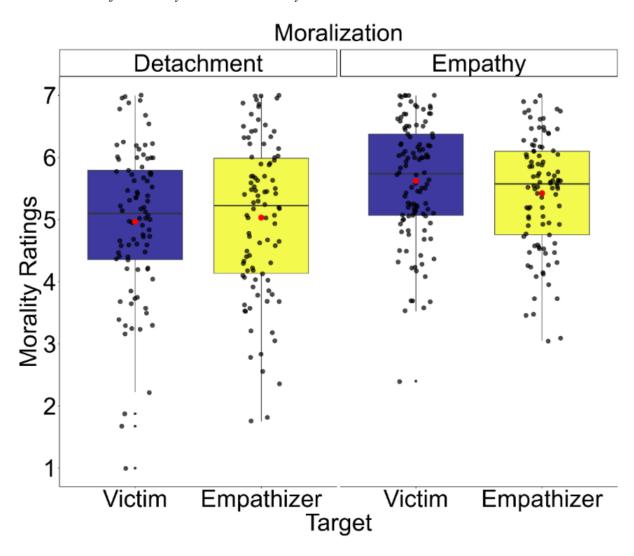
Estimated Marginal Means for Moralization and Empathic Concern – Study 1

Note. All values refer to estimated marginal means for each condition when collapsing across the other factor. EMM

= Estimated Marginal Mean, SE = Standard Error.

As a reminder, participants also rated their level of empathic concern for empathizers, which we included as an exploratory dependent variable. Participants reported higher empathic concern for empathizers in the empathy condition than in the detachment condition. Participants also reported higher empathic concern for empathizers in the empathizer (i.e., secondhand) condition than in the victim (i.e., firsthand) condition. There was no interaction between target and empathy instruction on ratings of empathic concern for empathizers. See Table 5 for inferential statistics and Table 6 for estimated marginal means.

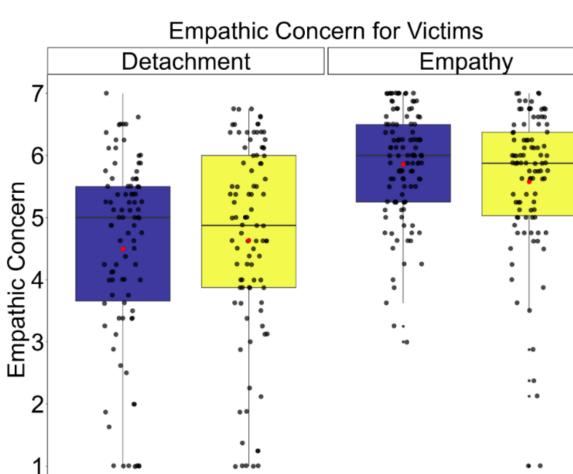
# Figure 2



Moralization of Harms by Condition – Study 1

*Note*. Boxplots displaying the mean (red dot), median (horizontal line), and interquartile range (vertical box) for moralization ratings between conditions. "Empathizer" refers to secondhand empathy or secondhand detachment (depending on empathy instruction), and "Victim" refers to firsthand empathy or firsthand detachment (depending on empathy instruction).

# Figure 3



Empathic Concern for Victims by Condition – Study 1

**Target** *Note*. Boxplots displaying the mean (red dot), median (horizontal line), and interquartile range (vertical box) for empathic concern (victim) ratings between conditions. "Empathizer" refers to secondhand empathy or secondhand

Victim

Empathizer

Empathizer

detachment (depending on empathy instruction), and "Victim" refers to firsthand empathy or firsthand detachment (depending on empathy instruction).

Victim

### **Cognitive Effort**

There were no effects of target or empathy instruction on ratings of effort, negative affect, and efficacy during the task. See Table 7 for inferential statistics.

## Inferential Statistics for Cognitive Effort – Study 1

	b	t	df	р	95% CI	$\eta^2$
Effort						
Target	0.02	0.23	390	.818	[-0.18, 0.22]	0.00
Empathy Instruction	0.10	0.97	390	.335	[-0.10, 0.30]	0.00
Target x Empathy Instruction	-0.15	-0.76	390	.447	[-0.55, 0.24]	0.00
Negative Affect						
Target	-0.01	-0.04	390	.967	[-0.25, 0.24]	0.00
Empathy Instruction	0.07	0.58	390	.562	[-0.17, 0.31]	0.00
Target x Empathy Instruction	0.12	0.50	390	.620	[-0.36, 0.61]	0.00
Efficacy						
Target	-0.04	-0.50	390	.620	[-0.21, 0.13]	0.00
Empathy Instruction	0.04	0.43	390	.671	[-0.13, 0.20]	0.00
Target x Empathy Instruction	-0.15	-0.90	390	.371	[-0.49, 0.18]	0.00

and the interaction between Target and Empathy Instruction on ratings of effort, negative affect, and efficacy during the task.

### **Individual Differences**

Although we were interested in whether empathic concern and perspective-taking moderated experimental effects, there was a small main effect of empathy instruction on individual differences in empathic concern: people in the empathy condition reported higher empathic concern than people in the detachment condition, b = 0.17, t(390) = 2.10, p = .037, 95% CI [0.01, 0.32],  $\eta^2 = 0.01$ . There was no main effect of target on empathic concern, nor was there an interaction between target and empathy instruction (ps > .623). Because the experimental manipulation directly impacted empathic concern, we do not report interactions between empathic concern and experimental condition. There were no effects of target, empathy instruction, or their interaction term on perspective-taking (ps > .084) nor were there interactions between condition and perspective-taking on dependent variables (see Table 8).

Moderation by IRI Perspective Taking – Study 1

	b	t	df	р	95% CI	$\eta^2$
Moralization						
Target x Perspective Taking	0.10	0.67	386	.507	[-0.20, 0.41]	0.00
Empathy Instruction x Perspective Taking	-0.14	-0.91	386	.365	[-0.45, 0.17]	0.00
Target x Empathy Instruction x Perspective Taking	-0.16	-0.52	386	.602	[-0.77, 0.45]	0.00
Empathic Concern (Victim)						
Target x Perspective Taking	0.22	1.11	386	.267	[-0.17, 0.61]	0.00
Empathy Instruction x Perspective Taking	0.13	0.68	386	.498	[-0.25, 0.52]	0.00
Target x Empathy Instruction x Perspective Taking	-0.27	-0.68	386	.495	[-1.04, 0.51]	0.00
Empathic Concern (Empathizer)						
Target x Perspective Taking	0.00	-0.01	386	.990	[-0.46, 0.46]	0.00
Empathy Instruction x Perspective Taking	0.26	1.09	386	.279	[-0.21, 0.72]	0.00
Target x Empathy Instruction x Perspective Taking	0.19	0.40	386	.693	[-0.74, 1.11]	0.00

Note. Two-way and three-way interaction effects between condition and IRI perspective-taking.

## **Correlational Effects**

See Table 9 for correlations between dependent variables. Ratings of moralization were strongly associated with empathic concern for victims and were moderately associated with empathic concern for empathizers. Dependent variables were either uncorrelated or weakly correlated with effort, negative affect, and efficacy. Individual differences in empathic concern and perspective-taking were strongly associated with moralization and empathic concern for victims but were uncorrelated with empathic concern for empathizers.

Correlational Effects – Study 1

	1	2	3	4	5	6	7
1. Moralization							
2. Empathic Concern - Victim	0.70**						
3. Empathic Concern - Empathizer	0.29**	0.37*					
4. Effort	0.07	0.02	0.11*				
5. Negative Affect	0.02	0.03	0.12*	0.46**			
6. Efficacy	0.11*	0.07	-0.12*	-0.20**	-0.25**		
7. IRI Empathic Concern	0.48**	0.36**	0.06	-0.01	-0.10*	0.09	
8. IRI Perspective Taking	0.37**	0.25**	0.09	-0.04	-0.08	0.13**	0.63**

*Note.* \**p* < .05, \*\**p* < .01

#### Discussion

In Study 1, we tested whether secondhand empathy increases moralization of harm and empathic concern for victims of harm and also compared how secondhand empathy can influence these outcomes relative to firsthand empathy. We found that, compared to emotionally detaching from victim or empathizer experiences, vicariously experiencing victims' suffering (firsthand empathy) and empathizers' empathy (secondhand empathy) both increased moralization and empathic concern for victims. Importantly, we did not find significant interactions between the type of target (victim or empathizer) and empathy instructions (empathy or detachment) on either of our primary outcomes, suggesting that empathy instructions significantly influenced people's moral evaluations of harm regardless of whether it was directed towards victims or empathizers. This study provides initial support for moralizing effects of secondhand empathy, and additionally suggests that it may shape moral outcomes to a similar degree as firsthand empathy.

Notably, empathic concern for victims was highly correlated with moralization of harm. Empathic concern for empathizers was also correlated with moralization but the size of this effect was notably weaker. This may suggest that empathy for victims is more closely associated with moralization of harm than empathy for empathizers. Indeed, when entering empathic concern for empathizers and empathic concern for victims in a regression predicting moralization, only empathic concern for victims remained a significant predictor.<sup>3</sup> In addition, unlike concern for victims, concern for empathizers was uncorrelated with trait empathic concern and trait perspective-taking, which raises questions about the extent to which this measure captured empathy. However, it should be noted that measuring concern for empathizers in this context may have been confusing to participants because empathizers themselves were not victims of any harm. Indeed, the mean rating of concern for empathizers (M = 2.75) was much lower than concern for victims (M = 5.18), suggesting possible floor effects on the former.

People also tended to report more effort on the task the more they reported concern for empathizers – while concern for victims and effort were uncorrelated – which may indicate that extending concern towards empathizers presented a particular challenge to participants. Thus, we consider this "concern for empathizers" measure to be largely exploratory and may expect empathy for empathizers to be more closely associated with moralization if empathy is measured as experience-sharing (rather than concern). We return to this limitation in Study 3.

<sup>&</sup>lt;sup>3</sup>Empathic Concern for Victims: b = 0.54, t(391) = 17.75, p < .001, 95% CI [0.48, 0.59],  $\eta^2 = 0.45$ ; Empathic Concern for Empathizers: b = 0.02, t(391) = 0.88, p = .378, 95% CI [-0.03, 0.08],  $\eta^2 = 0.00$ .

#### Chapter 3

#### Study 2

There are some weaknesses with the use of "detachment" instructions as a control condition. Although detachment instructions are commonly used as a control in the empathy literature (see McAuliffe et al., 2020), they may not reflect people's baseline responses because people are still provided with explicit task instructions (i.e., to emotionally detach oneself). As a result, it is unclear whether the effects from Study 1 were driven by empathy or detachment instructions: does experiencing an empathizer's emotional response to a victim *increase* moralization and concern, or does emotionally detaching oneself from this response *reduce* these outcomes? In the latter case, the findings from Study 1 would reflect secondhand *detachment* rather than secondhand *empathy*.

In Study 2, we address this limitation by including a secondhand no-instruction control condition where participants are instructed to write about empathizers without explicit empathy or detachment instructions. If participants who are instructed to vicariously experience an empathizer's emotions show higher moralization and concern compared to this no-instruction control, this would provide stronger evidence that secondhand empathy increases relevant outcomes relative to baseline. Including this additional control also allows for a stronger test of whether secondhand empathy alone influences outcomes beyond other potential factors. As discussed, the awareness of an empathizer may provide multiple non-empathic elicitors – such as social signals or perceptions of harm – that can influence moralization and concern regardless of whether one is taking on the empathizer's emotional experience. If empathy has a unique effect beyond these other elicitors, we should expect secondhand empathy instructions to produce

higher moralization and concern compared to when participants are instructed to attend to the empathizer without empathy instructions.

#### **Pre-Registered Predictions**

This study was pre-registered on aspredicted.org.<sup>4</sup> We pre-registered the primary predictions that participants who receive secondhand empathy instructions would show higher moralization and empathic concern towards victims than participants who are instructed to emotionally detach from empathizers' experiences or write about empathizers without explicit empathy or detachment instructions. While we compared effects of secondhand empathy with firsthand empathy in Study 1, we did not include firsthand conditions in Study 2 because we were primarily interested in testing for the locus of secondhand effects (i.e., whether secondhand empathy increases outcomes or if secondhand detachment reduces them). Other analyses (e.g., moderation by individual differences) were also pre-registered as exploratory tests.

#### Method

### Design

This study included three between-subjects conditions: *empathy* (N = 88), *detachment* (N = 108), and *control* (N = 97). Conditions were randomized using the same methods as Study 1.

## Participants

We recruited 300 participants from Pennsylvania State University's undergraduate subject pool ( $M_{age} = 19.11$ ,  $SD_{age} = 1.04$ ; 70.00% women, 27.67% men, 0.33% non-binary). We analyzed power using a similar method as Study 1, which determined that this sample size achieved at least 80% power to detect a small-medium effect of condition ( $\eta_p^2 = 0.04$ ; see Appendix for detailed parameters). Participants were recruited via the university SONA system

<sup>&</sup>lt;sup>4</sup>Pre-registration URL for Study 2: <u>https://aspredicted.org/VP5\_7YM</u>

and completed the study for course credit. Like Study 1, participants were automatically prevented from completing the study twice and were excluded from analyses if they provided an open-ended response that was either blank or clearly unrelated to the prompt on at least one trial of the task. Following these exclusions, there was a final *N* of 293 ( $M_{age} = 19.12$ ,  $SD_{age} = 1.04$ ; 70.31% women; 27.65% men; 0.34% non-binary).

### Procedure

The study followed nearly identical procedures to Study 1. The study involved the same descriptions, scenarios, and images as Study 1 but differed in the task instructions randomized to participants. Unlike Study 1, we did not include any "firsthand" conditions where participants were instructed to empathize or detach from the victim; instead, task instructions were oriented towards empathizers in all conditions. We additionally included a no-instruction control where participants were not provided with explicit instructions regarding empathy or detachment. In the *empathy* condition, participants were instructed to feel what the empathizers feel; in the *detachment* condition, participants were instructed to remain emotionally detached from the empathizers; in the *control* condition, participants were only instructed to write about the empathizers. See Appendix for full instructions.

#### Measures

All measures were identical to Study 1. As a manipulation check, participants rated how much they tried to feel what the empathizer felt on each trial. Like Study 1, participants also rated how much they tried to feel what the victim felt on each trial; however, because participants were not instructed to empathize, detach from, or write about the victim in any conditions, this measure was largely exploratory. As primary dependent variables, participants rated their concern for the victim and moralization of the scenario ( $\alpha = 0.96$ ), and also rated their concern for the empathizer as an exploratory measure. Participants rated their cognitive effort, demand, negative affect, and efficacy during the task; the effort and demand items were combined (r = 0.64). Participants completed the empathic concern ( $\alpha = 0.79$ ) and perspective taking ( $\alpha = 0.72$ ) sub-scales of the Interpersonal Reactivity Index.

### Results

### **Analysis Strategy**

We report the omnibus effect of condition for all dependent variables. To examine each pairwise contrast between conditions, we ran three linear regressions with the relevant comparison contrast coded in each model (Model 1: Empathy = 1, Detachment = -1; Model 2: Empathy = 1, Control = -1; Model 3: Detachment = 1, Control = -1). An additional set of contrasts was included in each model to ensure full orthogonality (e.g., Detachment/Control = -1, Empathy = 2), but we do not report these given that we did not have hypotheses about these comparisons (see Appendix for coding schemes used in each model).<sup>5</sup>

#### **Manipulation Checks**

There was a significant omnibus effect of condition on how much participants reported trying to feel what the empathizers felt, F(2, 290) = 37.03, p < .001,  $\eta^2 = 0.20$ . Pairwise contrasts (see Table 10 for inferential statistics) revealed that participants reported trying to feel what empathizers felt more in the empathy condition (M = 4.80, SD = 1.33) than in the detachment (M= 3.23, SD = 1.24) and control conditions (M = 3.61, SD = 1.36). In addition, participants in the detachment condition reported trying to feel what the empathizers felt less than participants in

<sup>&</sup>lt;sup>5</sup>Note that while the numeric codes in these models differ from Study 1 (i.e., conditions are coded as 1 in Study 2 vs. 0.5 in Study 1), the coding system used here nonetheless deals with pairwise comparisons using full orthogonal contrast codes, and thus the analysis strategy does not differ substantively between studies. Because pairwise comparisons are coded with a two-unit difference in this study, *b*'s and 95% CI's are multiplied by two to reflect estimated mean differences between conditions.

the control condition. This result reveals that participants successfully followed the instruction to try to feel what empathizers felt in the empathizer condition, and additionally that participants attempted to feel what empathizers felt less when instructed to emotionally detach.

There was also a significant omnibus effect of condition on how much participants reported trying to feel what the victims felt, F(2, 290) = 8.79, p < .001,  $\eta^2 = 0.06$ . Pairwise contrasts (see Table 10 for inferential statistics) revealed that participants reported trying to feel what victims felt less in the detachment condition (M = 4.72, SD = 1.39) than in the empathy (M = 5.45, SD = 1.31) and control condition (M = 5.20, SD = 1.00), while there was no difference between the empathy and control conditions.

#### Table 10

Contrast	b	df	t	р	95% CI	$\eta^2$
Manipulation Check (Empathizer)						
Empathy vs. Detachment	1.57	290	8.38	< .001	[1.20, 1.94]	0.20
Empathy vs. Control	1.18	290	6.15	< .001	[0.80, 1.56]	0.12
Detachment vs. Control	-0.39	290	-2.13	.034	[-0.75, -0.03]	0.02
Manipulation Check (Victim)						
Empathy vs. Detachment	0.73	290	4.07	< .001	[0.38, 1.08]	0.05
Empathy vs. Control	0.25	290	1.33	.183	[-0.12, 0.61]	0.01
Detachment vs. Control	-0.48	290	-2.77	.006	[-0.83, -0.14]	0.03

Pairwise Comparisons for Manipulation Checks – Study 2

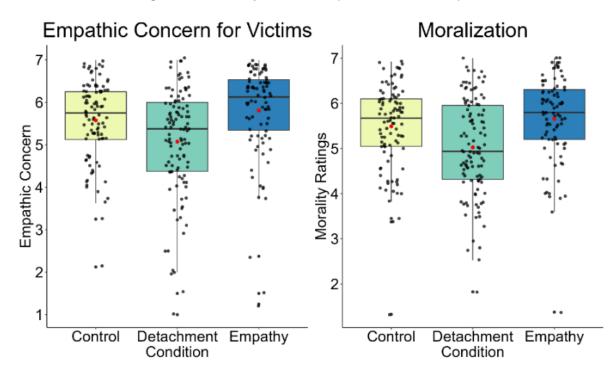
*Note.* Pairwise contrasts for how much participants reported trying to feel what the empathizers felt and how much they reported trying to feel what the victims felt, between conditions. Because conditions were coded with a 2-unit difference, all *b*'s and 95% CI's are multiplied by two to reflect the estimated mean difference between conditions.

#### **Moralization and Concern**

There was a significant omnibus effect of condition on moralization, F(2, 290) = 10.73, p < .001,  $\eta^2 = 0.07$ . Pairwise comparisons (see Table 10 for inferential statistics) revealed that participants in the detachment condition (M = 5.02, SD = 1.08) reported lower moralization than

participants in the control (M = 5.49, SD = 0.95) and empathy (M = 5.66, SD = 0.96) conditions. Contrary to our pre-registered predictions, there was no significant difference between the empathy and control conditions.

There was also a significant omnibus effect of condition on empathic concern for victims,  $F(2, 290) = 11.08, p < .001, \eta^2 = 0.07$ . Pairwise comparisons (see Table 11 for inferential statistics) revealed that participants in the detachment condition (M = 5.07, SD = 1.27) reported lower concern for victims than participants in the empathy (M = 5.81, SD = 1.14) and control (M = 5.58, SD = 0.93) conditions. There was no difference between the empathy and control conditions. See Figure 4 for moralization and empathic concern ratings between conditions. **Figure 4** 



Moralization and Empathic Concern for Victims by Condition – Study 2

*Note*. Boxplots displaying the mean (red dot), median (horizontal line), and interquartile range (vertical box) for moralization and empathic concern (victim) ratings between conditions.

There was an omnibus effect of condition on how much empathic concern participants reported for empathizers, F(2, 290) = 8.78, p < .001,  $\eta^2 = 0.06$ . Pairwise contrasts revealed that participants in the empathy condition (M = 3.23, SD = 1.47) reported higher concern for empathizers than participants in the detachment condition (M = 2.44, SD = 1.26), and control condition (M = 2.62, SD = 1.35). There was no difference between the detachment and control conditions in how much empathic concern participants reported for empathizers.

## Table 11

	b	df	t	р	95% CI	$\eta^2$
Moralization						
Empathy vs. Detachment	0.63	290	4.40	<.001	[0.35, 0.92]	0.06
Empathy vs. Control	0.17	290	1.14	.254	[-0.12, 0.46]	0.00
Detachment vs. Control	-0.47	290	-3.31	.001	[-0.74, -0.19]	0.04
Empathic Concern (Victim)						
Empathy vs. Detachment	0.73	290	4.54	<.001	[0.42, 1.05]	0.07
Empathy vs. Control	0.23	290	1.40	.162	[-0.09, 0.56]	0.01
Detachment vs. Control	-0.50	290	-3.19	.002	[-0.81, -0.19]	0.03
Empathic Concern (Empathizer)						
Empathy vs. Detachment	0.79	290	4.07	<.001	[0.41, 1.17]	0.05
Empathy vs. Control	0.61	290	3.03	.003	[0.21, 1.00]	0.03
Detachment vs. Control	-0.19	290	-0.98	.326	[-0.56, 0.19]	0.00

Pairwise Comparisons for Moralization and Concern Ratings – Study 2

Note. Because conditions were coded with a 2-unit difference, all b's and 95% CI's are multiplied by two to reflect

the estimated mean difference between conditions.

## **Cognitive Effort**

There were no effects of condition on effort, negative affect, or efficacy (See Table 12 for

inferential statistics).

	Omnibus Effect
Effort	$F(2, 290) = 0.36, p = .700, \eta^2 = 0.00$
Negative Affect	$F(2, 290) = 0.28, p = .758, \eta^2 = 0.00$
Efficacy	$F(2, 290) = 1.03, p = .358, \eta^2 = 0.01$
N . O '1 66 . 6	

Inferential Statistics for Cognitive Effort – Study 2

Note. Omnibus effects of condition on ratings of effort, negative affect, and efficacy.

### **Individual Differences**

There was no effect of experimental condition on individual differences in empathic concern or perspective-taking (ps > .120), and these individual differences did not moderate experimental effects. See Table 13 for inferential statistics for interaction effects.

## Table 13

Moderation by Individual Differences – Study 2

	Interaction Effect
Moralization	
IRI Empathic Concern	$F(2, 287) = 0.73, p = .482, \eta^2 = 0.00$
IRI Perspective Taking	$F(2, 287) = 0.20, p = .818, \eta^2 = 0.00$
Empathic Concern (Victim)	
IRI Empathic Concern	$F(2, 287) = 0.68, p = .509, \eta^2 = 0.00$
IRI Perspective Taking	$F(2, 287) = 0.48, p = .620, \eta^2 = 0.00$
Empathic Concern (Empathizer)	
IRI Empathic Concern	$F(2, 287) = 0.52, p = .595, \eta^2 = 0.00$
IRI Perspective Taking	$F(2, 287) = 0.68, p = .505, \eta^2 = 0.00$
Note. Omnibus interaction effects between c	ondition and individual differences in empathic concern and

perspective-taking.

#### **Correlational Effects**

See Table 14 for correlations between variables. Similar to Study 1, moralization was strongly correlated with empathic concern for victims but was only modestly correlated with

empathic concern for empathizers. <sup>6</sup> Efficacy was moderately correlated with moralization and empathic concern for victims but was uncorrelated with empathic concern for empathizers, while effort and negative affect were modestly associated with empathic concern for empathizers and were either uncorrelated or weakly correlated with moralization and empathic concern for victims. Individual differences in empathic concern and perspective taking were strongly associated with moralization and empathic concern for victims but were uncorrelated with empathic concern for empathizers.

### Table 14

## Correlational Effects – Study 2

	1	2	3	4	5	6	7
1. Moralization							
2. Empathic Concern - Victim	0.82**						
3. Empathic Concern - Empathizer	0.15**	0.15*					
4. Effort	0.08	0.12*	0.19**				
5. Negative Affect	0.04	0.05	0.14*	0.52**			
6. Efficacy	0.27**	0.21**	-0.02	-0.07	-0.11		
7. IRI Empathic Concern	0.45**	0.46**	-0.07	-0.08	-0.08	0.24**	
8. IRI Perspective Taking	0.43**	0.38**	-0.02	-0.07	-0.07	0.16**	0.49**

*Note.* \**p* < .05, \*\**p* <. 01

#### Discussion

The goal of Study 2 was to provide a stronger test of whether secondhand empathy can shape moral attitudes towards harm by including an additional control condition. Along with

<sup>&</sup>lt;sup>6</sup>When entering empathic concern for victims and empathic concern for empathizers in a regression predicting moralization, empathic concern for victims significantly predicted moralization, b = 0.73, t(290) = 24.24, p < .001, 95% CI [0.67, 0.79],  $\eta^2 = 0.67$ , while empathic concern for empathizers did not, b = 0.03, t(290) = 1.02, p = .311, 95% CI [-0.02, 0.08],  $\eta^2 = 0.00$ .

testing secondhand empathy against secondhand detachment (akin to Study 1), we compared secondhand empathy to a secondhand, no-instruction control condition where participants were only instructed to write about empathizers. This study replicated the secondhand empathy effect of Study 1, where participants instructed to feel empathizers' empathy showed higher moralization and concern for victims than participants instructed to emotionally detach from empathizers' empathy. However, there was no difference in these outcomes between participants instructed to feel empathizers instructed to only write about empathizers. This suggests that while secondhand *detachment* reduced moralization and concern relative to control, secondhand *empathy* did not increase these outcomes.

While we did not find effects of secondhand empathy on moralization and concern for victims, it is notable that people in the secondhand empathy condition (vs. both detachment and no-instruction control) did report greater attempts to feel what the empathizers felt and greater empathic concern for empathizers, suggesting that people did try to foster secondhand empathy when instructed to do so. This result suggests that while the secondhand empathy manipulation was successful in inducing people to try to vicariously experience empathizers' internal state, these attempts did not translate into greater attempts to empathize with victims, concern for victims, or moralizing attitudes.

One possible explanation for these results is that participants in the no-instruction control may have already directed a high level of empathy towards victims. This may be because the victims were already viewed as deserving of empathy, and as a result, people felt naturally inclined to empathize even when not provided with explicit instructions. This explanation is supported by prior literature. In a meta-analysis, McAuliffe et al. (2020) found that while instructions to empathize with victims often produce differences on relevant outcomes when compared to emotional detachment, empathy instructions often do *not* produce differences from no-instruction controls. The authors concluded that people may show high empathy by default when presented with victims of harm. Thus, instructions to empathize may be unable to increase this already high baseline level of empathy, while instructions to emotionally detach oneself may decrease it.

Although this prior work has only examined empathy for victims (i.e., not secondhand empathy), it is plausible that a similar explanation applies to secondhand empathy: if people are already compelled to empathize with victims by default, there may be little room to increase this tendency further with secondhand empathy. In addition, this explanation is supported by results on manipulation checks: people who were instructed to emotionally detach themselves attempted to feel what victims felt less compared to the other conditions, but people in the no-instruction control condition attempted to feel what victims felt to a similar degree as people in the empathy condition. In the next study, we look to test this possibility by manipulating the degree of empathy that people are inclined to show towards victims at baseline and examining whether this influences people's responsiveness to secondhand empathy instructions.

#### Chapter 4

### Study 3

Secondhand empathy may have had little effect on moral attitudes compared to a noinstruction control in Study 2 because people were already inclined to empathize with the victims' suffering. If this explanation is correct, a follow-up question is how secondhand empathy may influence moral attitudes when people are *not* already inclined to empathize with victims. In Study 3, we examine the following question: if one is reluctant to empathize with a victim, does empathizing with another person's empathy for this victim lead one to override this initial reluctance?

This hypothesis is plausible for multiple reasons. First, prior research demonstrates that instructions to imagine the internal experiences of people who are members of highly stigmatized groups (e.g., homeless people or people with drug addictions), with whom people are often more reluctant to empathize (Decety et al., 2010), can increase empathic concern for them (Batson et al., 2002). In addition, while McAuliffe et al. (2020) found that empathy instructions often have little effect compared to baseline controls, they further speculated that we may see effects of empathy instructions when a victim is viewed as undeserving of empathy or help by default. In other words, explicit instructions to empathize with a stigmatized target may override people's initial reluctance to show empathy for this target, and we may see similar effects when people are instructed to empathize with an empathizer's empathy.

Second, vicariously experiencing an empathizer's empathy may facilitate positive attitudes towards a negatively-valenced target. According to balance theory (Heider, 1958), people attempt to hold attitudes towards different objects in a way that is cognitively consistent. People typically hold positive attitudes towards empathy and empathizers (Goldstein et al., 2014; Wang & Todd, 2021) and thus should, at baseline, view secondhand empathizers positively. However, if an empathizer shows empathy towards a disliked target, this would likely be experienced as cognitively inconsistent because of the conflict between a) viewing the empathizer as positive, and b) viewing the victim as negative despite this victim being the recipient of empathy from a positive target (i.e., the empathizer). According to balance theory, people should be motivated to resolve this inconsistency.

Wang and Todd (2021) found that, when presented with a target who shows empathy towards a negative target, people usually restored cognitive consistency by devaluing the empathizer target and viewing them more negatively. However, we may predict a different pattern of results when participants are instructed to *empathize* with an empathizer's empathy. If an empathizer is viewed positively, people should be relatively susceptible to taking on this target's internal experience. In turn, taking on this empathizer's internal experience – which involves empathy towards the victim – may guide people to view the victim more positively and thus extend greater concern towards them, even if the victim is viewed negatively by default. Thus, empathy instructions may compel people to resolve attitudinal inconsistencies by viewing both the empathizer and victim target positively.

In Study 3, we manipulated secondhand empathy in a similar fashion as Study 2 (i.e., through secondhand empathy, detachment, and no-instruction control conditions) but experimentally varied characteristics of the victim targets. Specifically, we manipulated whether victims were stigmatized and negatively-valenced (i.e., having a prior history of drug abuse and addiction) or relatively non-stigmatized and positively-valenced (i.e., a middle-class American). Prior work finds that people with drug addictions are often viewed as low in both warmth and competence and are often highly stigmatized and dehumanized, while middle-class individuals are often viewed as relatively high in warmth and competence, and receive little stigma (Fiske et al., 2018; Harris & Fiske, 2006; Kuljian & Hohman, 2023). We used these stigmatized and nonstigmatized descriptions to manipulate people's default inclination to empathize with victims. In addition, to ensure that people hold relatively positive, non-stigmatized attitudes towards empathizers, we describe all empathizer targets as middle-class Americans.

Thus, to examine how victim stigma influences secondhand empathy effects, we implemented a 3 (Empathy: Empathy, Detachment, and Control) x 2 (Victim Stigma: Stigmatized vs. Non-Stigmatized) design. We predicted that when victim targets are positive and non-stigmatized, we would see similar results as Study 2: people may view the victim target as deserving of empathy by default and thus we would see little difference between the secondhand empathy and no-instruction control conditions. However, when victim targets belong to a stigmatized group and may be viewed as less deserving of empathy by default, we may see a significant effect of secondhand empathy (compared to the no-instruction control).

If secondhand empathy increases moralization and concern for victims who belong to stigmatized groups, this would hold a number of practical and theoretical implications. Practically, it would suggest that secondhand empathy may be an effective method to foster empathy for stigmatized groups, which could inform future empathy interventions intended to motivate morality and concern towards particular group members. Theoretically, it would also suggest that the effectiveness of empathy depends on the context; that is, secondhand empathy's effectiveness may depend on the characteristics of the target.

#### **Pre-Registered Predictions**

This study was pre-registered on aspredicted.org.<sup>7</sup> We pre-registered two primary predictions. First, we predicted an interaction between empathy instruction (empathy vs. detachment vs. no-instruction control) and victim stigma (stigmatized vs. non-stigmatized) on moralization ratings, such that participants would report higher moralization in the empathy condition compared to the no-instruction control when victims are stigmatized, while there will be a weaker or non-significant difference between the empathy and no-instruction control conditions when victims are non-stigmatized. We additionally predicted that participants would show lower moralization in the detachment condition (vs. the empathy and no-instruction control) across both levels of victim stigma given the results of Study 2. Second, we predicted the same interaction pattern for ratings of empathic concern for victims.

As secondary predictions, we pre-registered main effects of victim stigma and empathy instruction on ratings of moralization and empathic concern. We predicted that, collapsing across empathy instruction, participants would show lower moralization and empathic concern for stigmatized (vs. non-stigmatized) victims, and collapsing across victim stigma, participants would show higher moralization and empathic concern in the empathy condition (vs. the detachment and no-instruction control conditions).

#### Method

#### Design

This study followed a 3 (Empathy Instruction: Empathy vs. Detachment vs. No-Instruction Control) x 2 (Victim Stigma: Stigmatized vs. Non-stigmatized) between-subjects design.

<sup>&</sup>lt;sup>7</sup>Pre-registration URL for Study 3: <u>https://aspredicted.org/VYK\_BMX</u>

### **Participants**

We recruited 452 participants from Prolific ( $M_{age} = 38.29$ ,  $SD_{age} = 13.34$ ; 51.55% women, 42.70% men, 2.88% non-binary). The study followed the same recruitment protocols as Study 1. We recruited enough participants to achieve at least 80% power to detect a small interaction effect ( $\eta_p^2 = 0.02$ ) between empathy instructions and victim stigma, such that empathy instructions increase ratings of moralization and concern compared to the no-instruction control condition to a greater degree when victim targets are stigmatized (vs. non-stigmatized). We analyzed power using the same methods as Study 1 and Study 2 (see Appendix for detailed parameters). Participants were excluded for providing incomplete or irrelevant responses on the open-ended portion of the task, resulting in a final *N* of 448 ( $M_{age} = 38.32$ ,  $SD_{age} = 13.38$ ; 51.79% women, 42.41% men, 2.90% non-binary).

#### Procedure

Participants again read about an ostensible previous research study where one person (the victim target) described a past negative experience while another person (the empathizer target) listened. We manipulated whether the victims were described as belonging to stigmatized versus non-stigmatized groups. At the start of the study, participants in the *stigma* condition (N = 218) read that some participants in the previous study were recruited from organizations that provide counseling services for people with drug addictions (a similar description was used in Batson et al. (2002) to manipulate target stigma), while other participants were middle-class Americans. Participants in the current study were then told that they would read several scenarios where one person, who has a history of becoming addicted to hard drugs, described a past negative experience, while the second person, who is a middle-class American, listened. In the *non-stigma* condition (N = 230), participants read that both participants in the pair were middle-class

Americans as a non-stigmatized control comparison to the information presented in the *stigma* condition.

Participants then completed eight trials using a similar paradigm as Studies 1-2. On each trial, the victim was described as either having a past history of drug addictions or as a middleclass American; in the non-stigma condition, both victim and empathizer targets were described as middle-class Americans. Participants were reminded of the targets' group status on each screen in order to keep this information salient throughout. See Appendix for exact wording. All other aspects of the trials (i.e., scenarios and images) were identical to prior studies.

The *empathy* (N = 145), *detachment* (N = 152), and *control* (N = 151) manipulations were identical to Study 2: participants were either instructed to vicariously experience the empathizers' empathy, remain emotionally detached from it, or write about the empathizers, respectively.

#### Measures

Like Studies 1-2, participants rated how much they tried to feel what the empathizers felt as a manipulation check for the secondhand empathy instructions. We additionally retained the victim manipulation check, where participants rated how much they tried to feel what the victim felt, as an exploratory measure. As our primary outcome measures, participants completed the same measures of moralization ( $\alpha = 0.95$ ) and empathic concern for victims as Studies 1-2.

As discussed throughout the Introduction, secondhand empathy may facilitate moralization by allowing one to vicariously experience an empathizer's concern for a victim. Because experience-sharing with an empathizer is part of this process, it is critical to identify whether secondhand empathy instructions in the current studies actually produce greater experience-sharing for empathizers. To test this idea, we included a measure of experiencesharing on each trial, where participants rated how much they felt what the empathizers felt on a 1-7 scale (note that this is distinct from the manipulation checks, which asked participants to rate how much they *attempted* to feel what empathizers felt).

In addition, secondhand empathy may not only involve vicarious experience of an empathizer's emotions towards the victim, but also their beliefs about the victim. To test this possibility, we included a measure of empathy importance, where participants rated how important they thought it was to feel upset for the victim on a 1-7 scale on each trial. These two new measures – empathizer experience-sharing and empathy importance – were included to examine how empathic emotions (i.e., vicarious experience of the empathizer's concern for victims) and beliefs (i.e., vicarious experience of the belief that the victim should be empathized with) may serve as a conduit to any effects of secondhand empathy on moralization and concern.

In Studies 1-2, we measured how much concern participants felt for the empathizers. However, as discussed, this measure is difficult to interpret because the empathizers were not described as victims of harm. Thus, we did not include this measure in this study and instead opted to include the experience sharing and importance measures discussed above.

We measured cognitive effort during the task using the NASA Task Load Index (Hart & Staveland, 1988); the effort and demand items were highly correlated (r = 0.66) and combined into an effort index. Participants also completed the empathic concern ( $\alpha = 0.86$ ) and perspective-taking ( $\alpha = 0.81$ ) sub-scales of the Interpersonal Reactivity Index (Davis, 1983).

As an exploratory measure, we measured stigmatizing attitudes towards people with drug addictions using an adapted scale from Pescosolido et al. (2010). Social distance is a common method of assessing stigmatizing attitudes (Link et al., 2004) and has been adapted to a range of contexts including drug addictions (Clinton & Pollini, 2021). On this scale, participants

completed five items rating how willing they were to be socially close to a person with a drug addiction in a range of scenarios (e.g., "Work closely with you in a job," 1 = Definitely unwilling, 5 = Definitely willing,  $\alpha = 0.92$ ). We included this measure to examine if empathy instructions have an effect on stigmatizing attitudes towards people with drug addictions.

### Results

### **Analysis Strategy**

We report the omnibus effect of empathy instructions for all dependent variables, as well as the omnibus effect for the interaction between victim stigma and empathy instructions. To examine pairwise contrasts between each level of empathy instruction, we ran three linear regressions using the same coding strategy as Study 2 (Model 1: Empathy = 1, Detachment = -1; Model 2: Empathy = 1, Control = -1; Model 3: Detachment = 1, Control = -1; see Appendix for full coding strategy) and with victim stigma (Stigmatized = -1, Non-stigmatized = 1) and all interactions included as predictors in each model.

#### **Manipulation Checks**

See Table 15 for inferential statistics for pairwise contrasts and Table 16 for estimated marginal means for both the victim and empathizer manipulation checks. There was an omnibus main effect of empathy instruction for both the empathizer, F(2, 442) = 51.18, p < .001,  $\eta^2 = 0.19$ , and victim manipulation check, F(2, 442) = 12.07, p < .001,  $\eta^2 = 0.05$ . When examining pairwise contrasts, participants reported trying to feel what empathizers felt more in the empathy condition than in the detachment and control conditions, while there was no difference between the detachment and control conditions. Participants also reported trying to feel what victims felt more in the empathy condition compared to the detachment and control conditions and reported

trying to feel what victims felt more in the control condition compared to the detachment condition.

This result confirms that participants attempted to feel what empathizers felt more when instructed to do so (vs. the detachment and no-instruction control) and this empathy instruction also led to greater attempts to feel what victims felt. Interestingly, detachment instructions (vs. no-instruction control) did not decrease attempts to feel what empathizers felt, but they did lead to lower attempts to feel what victims felt. This may be because people showed lower attempts to empathize with empathizers by default, and thus it was more difficult to lower this further with empathy instructions.

There was no omnibus interaction between empathy instruction and victim stigma for either the empathizer manipulation check, F(2, 442) = 0.06, p = .941,  $\eta^2 = 0.00$ , or victim manipulation check, F(2, 442) = 0.31, p = .734,  $\eta^2 = 0.00$ . For both manipulation checks, there was no difference between the stigma and non-stigma conditions (see General Discussion for discussion of empathy differences between stigmatized and non-stigmatized targets).

Pairwise Comparisons for Manipulation Checks – Study 3

)
$\eta^2$
6] 0.17
7] 0.12
3] 0.01
3] 0.00
9] 0.05
2] 0.02
03] 0.01
0] 0.01
2

Note. Pairwise contrasts for how much people reported trying to feel what empathizers and victims felt between

conditions. Because conditions were coded with a 2-unit difference, all b's and 95% CI's are multiplied by two to

reflect the estimated mean difference between conditions.

## Table 16

	EMM	SE		EMM	SE
Manipulation Check (Empathizer)					
Empathy Instruction			Victim Stigma		
Empathy	5.66	0.12	Non-Stigma	4.76	0.09
Detachment	4.12	0.11	Stigma	4.69	0.09
Control	4.40	0.11			
Manipulation Check (Victim)					
Empathy Instruction			Victim Stigma		
Empathy	5.39	0.12	Non-Stigma	5.06	0.10
Detachment	4.54	0.12	Stigma	4.84	0.10
Control	4.91	0.12			

Estimated Marginal Means for Manipulation Checks – Study 3

Note. All values refer to estimated marginal means for each condition when collapsing across the other factor. EMM

= Estimated Marginal Mean, SE = Standard Error.

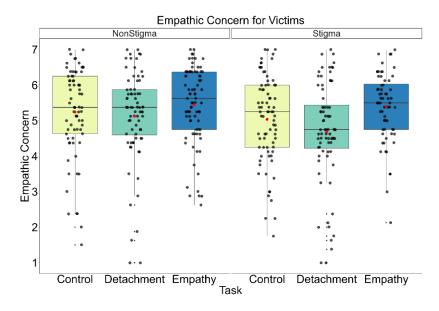
### **Moralization and Concern**

See Table 17 for inferential statistics for pairwise contrasts and Table 18 for estimated marginal means for moralization and empathic concern. Contrary to our primary hypotheses, there was no significant interaction between victim stigma and empathy instruction for either empathic concern for victims, F(2, 442) = 0.93, p = .395,  $\eta^2 = 0.00$ , or moralization, F(2, 442) = 0.29, p = .747,  $\eta^2 = 0.00$ .

There was a significant omnibus main effect of empathy instructions on concern for victims, F(2, 442) = 6.53, p = .002,  $\eta^2 = 0.03$ . Consistent with our secondary hypotheses, participants in the empathy condition reported higher concern for victims than participants in the detachment condition. Participants also reported higher concern for victims in the empathy condition compared to the no-instruction control; this difference was small but reached the standard threshold for statistical significance with a *p* value of .0496 (rounded to 0.050 in Table 17). There was no difference in empathic concern between the detachment and no-instruction control conditions.

Contrary to our secondary hypotheses, there was no omnibus effect of empathy instruction for moralization ratings, F(2, 442) = 2.09, p = .125,  $\eta^2 = 0.01$ . Pairwise contrasts descriptively showed a similar pattern of results as empathic concern (i.e., higher moralization in the empathy condition compared to the detachment and control conditions) but these differences did not reach statistical significance. Consistent with our secondary hypotheses, there were significant main effects of victim stigma for both moralization and concern: participants reported higher moralization and concern when victims were non-stigmatized. See Figure 5 and Figure 6 for empathic concern for victims and moralization by condition, respectively.

# Figure 5

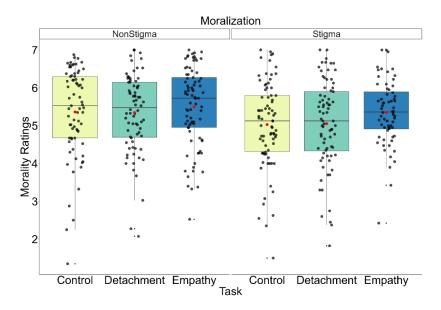


## Empathic Concern for Victims by Condition – Study 3

*Note*. Boxplots displaying the mean (red dot), median (horizontal line), and interquartile range (vertical box) for empathic concern ratings between conditions.

### Figure 6

Moralization of Harms by Condition – Study 3



*Note*. Boxplots displaying the mean (red dot), median (horizontal line), and interquartile range (vertical box) for moralization between conditions.

Contrast	b	df	t	р	95% CI	$\eta^2$
Moralization						
Empathy vs. Detachment	0.22	442	1.76	.078	[-0.03, 0.47]	0.01
Empathy vs. Control	0.23	442	1.80	.073	[-0.02, 0.48]	0.01
Detachment vs. Control	0.00	442	0.04	.972	[-0.24, 0.25]	0.00
Stigma vs. Non-Stigma	0.26	442	2.51	.012	[0.06, 0.46]	0.01
Empathic Concern						
Empathy vs. Detachment	0.51	442	3.61	< .001	[0.23, 0.79]	0.03
Empathy vs. Control	0.28	442	1.97	.050	[0.00, 0.56]	0.01
Detachment vs. Control	-0.23	442	-1.66	.097	[-0.51, 0.04]	0.01
Stigma vs. Non-stigma	0.23	442	2.01	.045	[0.005, 0.46]	0.01

Pairwise Comparisons for Moralization and Concern – Study 3

Note. Because conditions were coded with a 2-unit difference, all b's and 95% CI's are multiplied by two to reflect

the estimated mean difference between conditions.

### Table 18

Estimated Marginal Means for Moralization and Concern – Study 3

	EMM	SE		EMM	SE
Morality					
Empathy Instruction			Victim Stigma		
Empathy	5.42	0.09	Non-Stigma	5.40	0.07
Detachment	5.20	0.09	Stigma	5.14	0.07
Control	5.20	0.09			
Empathic Concern					
Empathy Instruction			Victim Stigma		
Empathy	5.42	0.10	Non-Stigma	5.27	0.08
Detachment	4.91	0.10	Stigma	5.04	0.08
Control	5.14	0.10			

Note. All values refer to estimated marginal means for each condition when collapsing across the other factor. EMM

= Estimated Marginal Mean, SE = Standard Error.

## **Experience Sharing and Empathy Importance**

See Table 19 for inferential statistics for pairwise contrasts and Table 20 for estimated

marginal means for experience sharing for empathizers and importance of empathy for victims.

There was a significant omnibus main effect of empathy instructions on both experience sharing,  $F(2, 442) = 23.12, p < .001, \eta^2 = 0.09$ , and empathy importance,  $F(2, 442) = 5.92, p = .003, \eta^2 =$ 0.03. Participants reported higher experience sharing for empathizers and greater importance of showing empathy for victims in the empathy condition compared to the detachment and control conditions; there was no difference between the detachment and control conditions on either the experience sharing or empathy importance measures.

Experience sharing for empathizers did not differ between the stigma and non-stigma conditions; however, participants reported greater empathy importance for victims when victims were non-stigmatized (vs. stigmatized). There was no interaction between victim stigma and empathy instruction for either experience sharing, F(2, 442) = 0.02, p = .985,  $\eta^2 = 0.00$ , or empathy importance, F(2, 442) = 1.09, p = .336,  $\eta^2 = 0.01$ .

### Table 19

Contrast	b	df	t	р	95% CI	$\eta^2$
Experience Sharing						
Empathy vs. Detachment	0.95	442	6.36	< .001	[0.66, 1.25]	0.08
Empathy vs. Control	0.80	442	5.33	< .001	[0.51, 1.10]	0.06
Detachment vs. Control	-0.15	442	-1.03	.304	[-0.44, 0.14]	0.00
Stigma vs. Non-Stigma	0.15	442	1.23	.221	[-0.09, 0.39]	0.00
Empathy Importance						
Empathy vs. Detachment	0.52	442	3.43	.001	[0.22, 0.81]	0.03
Empathy vs. Control	0.31	442	2.03	.043	[0.01, 0.60]	0.01
Detachment vs. Control	-0.21	442	-1.41	.160	[-0.50, 0.08]	0.00
Stigma vs. Non-stigma	0.29	442	2.37	.018	[0.05, 0.53]	0.01

Pairwise Comparisons for Experience Sharing and Empathy Importance

Note. Because conditions were coded with a 2-unit difference, all b's and 95% CI's are multiplied by two to reflect

the estimated mean difference between conditions.

## Table 20

	EMM	SE		EMM	SE
<b>Experience Sharing</b>					
Empathy Instruction			Victim Stigma		
Empathy	5.23	0.11	Non-Stigma	4.72	0.09
Detachment	4.27	0.11	Stigma	4.57	0.09
Control	4.43	0.11			
<b>Empathy Importance</b>					
Empathy Instruction Victim Stigma					
Empathy	5.27	0.11	Non-Stigma	5.14	0.09
Detachment	4.75	0.11	Stigma	4.85	0.09
Control	4.96	0.11			
Note. All values refer to estimated marginal means for each condition when collapsing across the other factor. EMM					

Estimated Marginal Means for Experience Sharing and Empathy Importance

= Estimated Marginal Mean, SE = Standard Error.

## **Cognitive Effort**

Ratings of effort, negative affect, and efficacy were largely unaffected by the empathy instruction and victim stigma manipulations. Participants reported that the task was more cognitively effortful when presented with stigmatized victims (EMM = 3.25, SE = 0.06) compared to non-stigmatized victims (EMM = 3.07, SE = 0.06), but this effect was small. All other effects for cognitive effort were non-significant (see Table 21 for inferential statistics).

## Table 21

Inferential Statistics for Cognitive Effort – Study 3

	Effect		
Effort			
Empathy Instruction	$F(2, 442) = 0.61, p = .545, \eta^2 = 0.00$		
Victim Stigma	$F(1, 442) = 3.93, p = .048, \eta^2 = 0.01$		
Empathy Instruction x Victim Stigma	$F(2, 442) = 0.56, p = .572, \eta^2 = 0.00$		
Negative Affect			
Empathy Instruction	$F(2, 442) = 0.08, p = .921, \eta^2 = 0.00$		
Victim Stigma	$F(1,442) = 2.28, p = .131, \eta^2 = 0.00$		
Empathy Instruction x Victim Stigma	$F(2,442) = 0.29, p = .748, \eta^2 = 0.00$		
Efficacy			
Empathy Instruction	$F(2, 442) = 0.06, p = .946, \eta^2 = 0.00$		
Victim Stigma	$F(1,442) = 0.62, p = .431, \eta^2 = 0.00$		
Empathy Instruction x Victim Stigma	$F(2,442) = 0.52, p = .593, \eta^2 = 0.00$		

Note. Effects of condition on ratings of effort, negative affect, and efficacy.

#### **Social Distance**

There was no omnibus effect of empathy instruction on stigmatization towards people with drug addictions (measured through social distance), F(2, 442) = 0.66, p = .520,  $\eta^2 = 0.00$ . Participants reported a greater willingness to be socially close to people with drug addictions in the stigma condition (EMM = 2.84, SE = 0.07) than in the non-stigma condition (EMM = 2.49, SE = 0.07), b = -0.35, t(442) = -3.54, p < .001,  $\eta^2 = 0.03$ , 95% CI [-0.55, -0.16]. There was no interaction between empathy instruction and victim stigma on social distance ratings, F(2, 442) = 0.56, p = .571,  $\eta^2 = 0.00$ .

## **Individual Differences**

There was an effect of victim stigma on individual differences in perspective-taking: people who were presented with non-stigmatized targets reported higher trait perspective-taking than people presented with stigmatized targets, b = 0.14, t(442) = 2.21, p = .027, 95% CI [0.02, 0.27],  $\eta^2 = 0.01$ . Because the experimental manipulation directly impacted perspective-taking, we

do not report interaction effects between perspective-taking and experimental condition.

## Table 22

Moderation by IRI Empathic Concern – Study 3

	Interaction Effect		
Moralization			
Empathy Instruction * Empathic Concern	$F(2, 436) = 0.01, p = .986, \eta^2 = 0.00$		
Victim Stigma * Empathic Concern	$F(1, 436) = 0.10, p = .755, \eta^2 = 0.00$		
Empathy Instruction * Victim Stigma * Empathic Concern	$F(2, 436) = 0.43, p = .650, \eta^2 = 0.00$		
Empathic Concern (Victim)			
Empathy Instruction * Empathic Concern	$F(2, 436) = 0.36, p = .695, \eta^2 = 0.00$		
Victim Stigma * Empathic Concern	$F(1, 436) = 3.96, p = .047, \eta^2 = 0.01$		
Empathy Instruction * Victim Stigma * Empathic Concern	$F(2, 436) = 1.29, p = .277, \eta^2 = 0.01$		
Experience Sharing (Empathizer)			
Empathy Instruction * Empathic Concern	$F(2, 436) = 0.41, p = .667, \eta^2 = 0.00$		
Victim Stigma * Empathic Concern	$F(1, 436) = 1.45, p = .229, \eta^2 = 0.00$		
Empathy Instruction * Victim Stigma * Empathic Concern	$F(2, 436) = 2.61, p = .075, \eta^2 = 0.01$		
Empathy Importance			
Empathy Instruction * Empathic Concern	$F(2, 436) = 0.05, p = .952, \eta^2 = 0.00$		
Victim Stigma * Empathic Concern	$F(1, 436) = 1.13, p = .289, \eta^2 = 0.00$		
Empathy Instruction * Victim Stigma * Empathic Concern	$F(2, 436) = 1.28, p = .279, \eta^2 = 0.01$		
Social Distance			
Empathy Instruction * Empathic Concern	$F(2, 436) = 1.28, p = .280, \eta^2 = 0.01$		
Victim Stigma * Empathic Concern	$F(1, 436) = 0.19, p = .662, \eta^2 = 0.00$		
Empathy Instruction * Victim Stigma * Empathic Concern	$F(2, 436) = 0.95, p = .386, \eta^2 = 0.00$		
Note. Interaction effects between empathy instruction, victim stigma, and empathic concern on dependent variables.			

There was a small two-way interaction effect between victim stigma and individual differences in empathic concern on ratings of empathic concern for victims. For individuals high in empathic concern (1 SD above the mean), there was no significant difference in concern for victims between stigmatized and non-stigmatized victims, b = -0.06, t(436) = -0.38, p = .705, 95% CI [-0.35, 0.24],  $\eta^2 = 0.00$ ; individuals low in empathic concern (1 SD below the mean), on

the other hand, reported higher concern for non-stigmatized victims than for stigmatized victims, b = 0.37, t(436) = 2.45, p = .015, 95% CI [0.07, 0.66],  $\eta^2 = 0.01$ . Experimental condition did not impact individual differences in empathic concern (ps > .161), and all other interaction effects were non-significant (see Table 22).

#### **Correlational Effects**

See Table 23 for correlations between variables. Moralization, empathic concern for victims, experience sharing for empathizers, and empathy importance were each highly correlated. These variables were either uncorrelated or weakly correlated with social distance, effort, and negative affect, but were modestly associated with efficacy. Individual differences in empathic concern and perspective-taking were strongly associated with moralization, empathic concern for victims, experience sharing for empathizers, and empathy importance, and were weakly associated with social distance and efficacy.

Although we were primarily interested in whether the experimental manipulations influenced experience-sharing for empathizers, we also tested whether experience-sharing for empathizers predicted moralization when controlling for empathic concern for victims. We did so as an exploratory test of whether vicarious experience of an empathizer's emotional experience itself contributes to moralization, even if it does not elicit concern for victims. Collapsing across condition, experience sharing with empathizers predicted moralization when controlling for empathic concern for victims, b = 0.09, t(445) = 2.39, p = .017, 95% CI [0.02, 0.17],  $\eta^2 = 0.01$ . However, within the secondhand empathy condition, experience sharing for empathizers did not predict moralization, b = 0.04, t(142) = 0.52, p = .604, 95% CI [-0.11, 0.18],  $\eta^2 = 0.00$ , while empathic concern for victims remained a strong predictor of moralization, b = 0.69, t(142) = 8.80, p < .001, 95% CI [0.54, 0.85],  $\eta^2 = 0.35$ . This may suggest that experience-

sharing for empathizers is only associated with moralizing attitudes to the degree that it fosters empathic concern for victims.

In a similar vein, we tested whether empathy importance predicts moralization when controlling for empathic concern for victims. Empathy importance predicted moralization when controlling for empathic concern for victims across conditions, b = 0.41, t(445) = 7.36, p < .001, 95% CI [0.30, 0.51],  $\eta^2 = 0.11$ , and within the secondhand empathy condition, b = 0.22, t(142) = 2.19, p = .030, 95% CI [0.02, 0.42],  $\eta^2 = 0.03$ , suggesting that believing it is important to show empathy for victims can contribute to moralization independently of actually felt empathic concern for victims.

### Table 23

		-	-		_				
	1	2	3	4	5	6	7	8	9
1. Moralization									
2. Empathic Concern (Victim)	0.76**								
3. Experience Sharing (Empathizer)	0.63**	0.77**							
4. Empathy Importance	0.77**	0.90**	0.73**						
5. Social Distance	0.04	0.09*	0.09*	0.09					
6. Effort	-0.02	0.03	0.01	0.01	0.02				
7. Negative Affect	-0.12**	-0.11*	-0.13**	-0.10*	0.03	0.42**			
8. Efficacy	0.24**	0.18**	0.18**	0.18**	0.02	-0.07	-0.27**	k	
9. IRI Empathic Concern	0.38**	0.44**	0.32**	0.42**	0.18**	-0.03	-0.07	0.17**	
10. IRI Perspective Taking	0.27**	0.28**	0.26**	0.26**	0.16**	-0.05	-0.11*	0.23**	0.55**
<i>Note.</i> * <i>p</i> < .05, ** <i>p</i> < .01									

## Correlational Effects – Study 3

#### Discussion

The goal of Study 3 was to test whether secondhand empathy produces moralization and concern when victim targets belong to a stigmatized group (in this case, people with drug addictions). The interaction between empathy instruction and victim stigma was non-significant for all dependent variables; thus, we did not find support for our primary prediction that instructing participants to vicariously experience an empathizer's empathic emotions would lead to higher moralization and concern (when compared to a no-instruction control) when victims are stigmatized (vs. non-stigmatized).

One reason why we did not find the expected interaction effect may be that the stigmatized descriptor of the victim was disconnected from the scenario and behavior. Because a larger portion of the trials were devoted to describing the immoral behavior and the empathizer's response to it, it is possible that people largely ignored information about the victim's stigmatized status while completing the trial. However, our results speak against this possibility: collapsing across empathy instruction, people reported lower moralization and concern when presented with stigmatized victims, suggesting that people were indeed responsive to this stigma information.

Another possibility is that people need to hold relatively positive attitudes towards the empathizer for secondhand empathy to have an effect. As discussed, people may be more likely to foster concern for victims if they view the empathizer positively, as positive attitudes towards the empathizer may be subsequently applied to the victim to achieve cognitive consistency. While empathizer targets were described in a non-stigmatized manner ("middle-class Americans"), it is possible that people had ambivalent reactions to this descriptor. For example, the broad "middle-class" descriptor may have been viewed as neutral by participants; alternatively, it is possible that some participants reacted negatively to this descriptor (e.g., if they hold negative attitudes towards particularly social classes). Our results do indicate that participants in the secondhand empathy condition vicariously experienced the empathizer's thoughts and feelings towards the victim (indicated by results on the manipulation checks and additional measures); however, it is possible that participants need to also view the empathizer as positive by default in order for secondhand empathy to subsequently shape attitudes towards the victim. This possibility could be tested using a 3 (Empathy Instruction: Empathy vs. Detachment vs. No-instruction control) x 2 (Secondhand Target: Positive vs. Negative) x 2 (Victim Target: Stigmatized vs. Non-stigmatized) design, where we would expect moralization and concern towards stigmatized victims to be strongest when secondhand targets are positive.

Collapsing across stigmatized and non-stigmatized targets, there were significant effects of secondhand empathy on empathic concern for victims (vs. detachment and a no-instruction control). This result contradicts Study 2, where secondhand empathy differed from secondhand detachment but not from a no-instruction control. One possible reason for this discrepant finding is that the higher power of the current study afforded a greater ability to detect an effect of secondhand empathy: indeed, the effect size of  $\eta^2 = 0.01$  when comparing the empathy condition to the no-instruction control condition is similar to what was observed in Study 2. It is possible that secondhand empathy produces relatively weak effects when compared to no-instruction controls, and thus greater sample sizes and/or stronger manipulations are needed to detect such effects. Similarly, effects of secondhand empathy descriptively increased ratings of moralization, but these effects were also small and did not reach statistical significance.

Finally, it is notable that secondhand empathy differed significantly from secondhand detachment on primary outcomes, which is consistent with the results from Study 1 and Study 2.

However, the locus of this effect – that is, whether secondhand empathy drives ratings of moralization and concern up or if secondhand detachment drives these ratings down – was inconsistent across studies. While secondhand detachment decreased moralization outcomes in Study 2 compared to a no-instruction control, people did not appear to differentiate between detachment and no-instruction control in the current study, as indicated by null differences between these conditions on manipulation checks. At the same time, while there was little difference between secondhand empathy and the no-instruction control in Study 2, we did find some (albeit small) significant differences between these conditions in Study 3.

Compared to detachment and the no-instruction control, secondhand empathy instructions also increased how much people reported feeling what the empathizers felt. This suggests that the secondhand empathy manipulation may not only increase attempts to feel what empathizers feel (per the manipulation check), but also increases how much a person actually experiences the feelings of the empathizer. The secondhand empathy manipulation similarly increased people's beliefs that it is important to feel concern for victims, suggesting that secondhand empathy may also lead one to take on the beliefs of an empathizer. Taken together, these effects provide evidence that secondhand empathy manipulations may affect both emotional responses (i.e., taking on the belief that a person should be empathized with). While we initially theorized that vicarious experience of an empathizer's emotions may spur moralization of victim suffering, this result suggests that vicarious experience more generally (i.e., *both* emotional and non-emotional) may be involved in these effects. In other words, secondhand empathy may not be strictly limited to empathic emotional experiences.

It should also be noted that when controlling for empathic concern for victims, experience sharing for empathizers did not predict moralization within the secondhand empathy condition, while beliefs about empathy's importance remained a significant predictor. This suggests that vicarious experience of an empathizer's beliefs may play a stronger role in moralization compared to the vicarious experience of an empathizer's emotions. However, given the weak effects of secondhand empathy on moralization and empathic concern for victims, more work is needed to identify how secondhand empathy may translate to moral attitudes towards victims (see General Discussion for more elaboration).

Secondhand empathy also did not influence people's stigmatizing attitudes towards people with drug addictions via the social distance measure. However, participants notably reported more willingness to be socially close to people with drug addictions when presented with victims who had a history of drug addiction. This result may reflect a psychological reactance effect (Brehm, 1966): when presented with stigmatized targets and prompted to report their broader attitudes towards this group, people may have been particularly motivated to report non-stigmatizing attitudes. Social distance was also associated with empathic concern for victims and experience sharing with empathizers, as well as individual differences in empathic concern and perspective-taking: people who gave higher ratings on these state and trait measures reported more willingness to be socially close to people with drug addictions. These associations between empathy and lower stigmatization are consistent with prior literature (Batson et al., 2002), and additionally suggest that empathy directed towards empathizers may similarly be associated with lower stigmatization. However, this association was small and strictly correlational, given that we did not find experimental effects of secondhand empathy on social distance. Overall, while this this study did not support the idea that secondhand empathy would produce stronger effects when involving stigmatized victims, it does provide additional evidence for positive effects of secondhand empathy: secondhand empathy modestly increased empathic concern across both stigmatized and non-stigmatized targets, and additionally increased the belief that it is important to extend concern towards victims. The implications of these findings and what they mean for secondhand empathy are elaborated on in the General Discussion.

#### Chapter 5

## **General Discussion**

We conducted the first investigation into secondhand empathy. We examined how vicariously experiencing an empathizer's empathic emotional response to a victim may shape concern for a victim and moral attitudes in oneself (thus, when using the term "secondhand empathy," we are primarily referring to experience-sharing with an empathizer; see "Facets of Empathy" for more discussion). While we found that people were capable of vicariously experiencing the internal experience of empathizers, we found mixed evidence that this can subsequently influence moralization of victim suffering. In Study 1, people who were instructed to take on the internal experiences of victims of harm (firsthand empathy) and people who were instructed to take on the internal experiences of people who showed empathy for these victims (secondhand empathy) both reported greater beliefs that the harms were morally wrong and greater concern for victims, compared to people who were instructed to either emotionally detach from victims or empathizers. In Study 2, secondhand empathy significantly increased moralization and concern compared to secondhand detachment but did not significantly increase these outcomes when compared to a no-instruction control. People who were instructed to emotionally detach from empathizers reported lower beliefs that harms were morally relevant and lower concern for victims compared to a no-instruction control, indicating that emotional detachment from empathizers may lead people to view harms as less morally relevant. Finally, in Study 3, secondhand empathy increased empathic concern for victims, beliefs that it was important to show concern for victims, and experience sharing for victims, but only descriptively increased moral beliefs about victim suffering. These secondhand empathy effects occurred

regardless of whether victims belonged to a stigmatized or non-stigmatized group, suggesting that secondhand empathy may influence concern for stigmatized individuals.

Across Studies 1-3, secondhand empathy conditions were significantly higher than secondhand detachment conditions on moralization and concern. However, the locus of this effect differed between Study 2 and Study 3: in Study 2, secondhand detachment decreased moralization and concern relative to a no-instruction control, while in Study 3, secondhand empathy mildly increased these outcomes compared to a no-instruction control (with no differences between the no-instruction control and secondhand detachment). This indicates that while the degree to which a person experiences an empathizer's empathic emotions appears to influence relevant moral outcomes, more work needs to be done to reveal whether this occurs as a function of empathic engagement or disengagement (see sections below for further discussion).

#### **Theoretical Implications**

#### Secondhand Empathy as a Construct

The current studies yield a number of novel insights for the empathy literature. As mentioned in the Introduction, one key assumption behind the secondhand empathy-morality link is that empathic responses can be empathized with themselves. Our studies give credence to this idea. In all studies, participants instructed to vicariously experience empathizers' internal states reported greater attempts to feel what empathizers felt. In Study 3, participants who were instructed to vicariously experience empathizers' internal states reported feeling what empathizers felt to a greater degree and were more likely to share empathizers' beliefs about empathy. This suggests that empathic responses are not limited to firsthand interactions: people can attempt to and successfully empathize with the internal experience of a person expressing empathy. Collapsing across experimental conditions, empathy towards empathizers was also correlated with other empathy-relevant measures (e.g., individual differences in empathy), demonstrating construct validity for secondhand empathy as an empathic phenomenon (though this differed on how "empathy" for empathizers was measured; see "Facets of Empathy" section below). Although the current studies were focused on how such secondhand empathy may influence moral responses, empathically responding to another's empathy may have implications for a number of other areas where multiple empathic actors may be involved, such as interactions in social relationships (Davis, 2017) or in teams (e.g., Wolff et al., 2002).

### Locus and Strength of Secondhand Empathy Effects

We found mixed results across studies when examining how secondhand empathy may contribute to moral attitudes. In Study 2, people given secondhand empathy instructions showed no differences from a no-instruction control, while people who were instructed to emotionally detach from empathizers reported lower moralization and concern. This is consistent with McAuliffe et al. (2020), who found that instructions to empathize (on a firsthand basis) often do not differ from no-instruction controls and that emotional detachment may uniquely influence outcomes. Thus, this result may reflect a broader uncertainty in the literature about whether the locus of empathy effects lies in empathy instructions or in emotional detachment instructions. This finding also contributes to the broader literature by suggesting that secondhand emotional detachment may lead to a decrease in the perceived moral relevance of harm. In a similar vein, this study demonstrates one potential area where "demoralization" effects – where perceptions of moral relevance decrease (Rhee et al., 2019) – may occur.

Yet, the results of Study 3 contradict those of Study 2: emotional detachment did not differ from the no-instruction control on manipulation checks or on moralization and concern.

This suggests that, unlike Study 2, participants in Study 3 did not differentiate between the detachment and no-instruction control conditions and thus felt emotionally detached from empathizers by default. Methodologically, the only substantial difference between these studies was the inclusion of information about the empathizer target's group status (i.e., that the empathizer was a middle-class American), which was included on each portion of each trial. It is possible that people already showed a degree of baseline emotional distance from this group, reducing the effectiveness of the detachment manipulation. While this group has previously been used as a high warmth, high competence contrast to stigmatized groups, (i.e., Harris & Fiske, 2006), it is possible that peoples' emotional warmth towards this group – at least when presented as a brief, text-based description as was done here – is not particularly high. This would suggest that the outcomes of secondhand empathy or detachment may depend on group characteristics of the empathizer, and that such characteristics should be carefully considered when implementing secondhand empathy manipulations.

Along with the above methodological difference, another potentially important difference between Studies 2 and 3 is the sample. In Study 2 we recruited participants who were undergraduates at Penn State, while in Study 3 we recruited a sample from the general US population on Prolific. The most substantial difference between these samples is likely age: after exclusions, the mean age was 19.12 in Study 2 and 38.32 in Study 3. Are there important-age related differences in how people responded to the various experimental manipulations in these studies? For example, perhaps different ages differ in baseline stigmatization towards people with drug addictions, potentially influencing default levels of empathy towards these stigmatized individuals and willingness to foster empathy for them. While we do not have strong hypotheses here, the demographic makeup of participants may be an important contextual factor to consider, especially given work that has suggested demographic differences in empathy (e.g., generational differences in self-reported trait empathy; Konrath et al., 2011).

In addition, in Study 3 we found a small effect of secondhand empathy instructions on empathic concern for victims, again contradicting the results of Study 2. Given similar effect sizes between studies ( $\eta^2 = 0.01$ ), it is possible that effects of secondhand empathy on concern for victims are relatively weak, and thus the greater sample size of Study 3 afforded a greater ability to detect this effect. The same may be true for moralization: although condition did not significantly influence moralization, the effect was descriptively trending in the same direction as empathic concern with a similarly sized effect.

#### **Empathic Actors and Observers**

There are several potential reasons for the relatively weak effects of secondhand empathy. One reason is the more indirect and circuitous nature of secondhand responses. Recall that prior literature finds that when directly empathizing with a victim, people often infer from their emotional response that they value the victim's suffering (Batson et al., 1995). In the case of secondhand empathy, one's emotional response originates from the empathizer – not a victim of harm – and thus there may be little reason to make moral inferences about a victim based on this emotional response.

In addition, there may be important differences between first-person empathic actors (i.e., firsthand empathizers) and empathic observers (i.e., secondhand empathizers) in how a display of empathy is interpreted and explained. For example, because first-person actors have greater access to the reasons behind their own behavior, they are more likely to attribute their behavior to their beliefs (Malle, 2006). This may mean that when empathizing with a victim directly, people are more likely to view their empathic response as a reflection of their broader moral

beliefs and attitudes. A secondhand observer, on the other hand, does not have direct access to an empathizer's reasons for empathizing, and thus may be less likely to attribute this empathic response to a broader moral compass. These actor-observer asymmetries are widely documented in the literature (Nisbett et al., 1973), and can additionally depend on a variety of factors such as event valence and relational intimacy between actors and observers (Malle, 2006). Although there is little work on differences between empathic actors and observers – given that extradyadic empathic interactions are a new area of research (Wang and Todd, 2021) – it is reasonable to expect such asymmetries to emerge given broader actor-observer asymmetries documented in the literature.

#### Secondhand Empathy and Self-Other Overlap

It is also possible that a greater degree of self-other overlap between a person and an empathizer is required for one to feel concern for victims themselves. Self-other overlap refers to the degree of correspondence between the internal experience of self and other and is often viewed as an important feature of empathic responses (Preston & Hoeflich, 2012). While self-other overlap is often a feature of empathy, it is not strictly necessary to produce concern for victims in firsthand contexts: for example, imagine-self perspective-taking with a victim can lead to greater self-other overlap than imagine-other perspective taking even though both types of perspective-taking are associated with empathic concern (Myers et al., 2014; Buffone et al., 2017).

It is possible that when extending empathy to empathizers in secondhand empathic interactions, self-other overlap is necessary for one to become concerned for victims. Because one is essentially taking on the empathy expressed by another person, this empathy may be more likely to emerge when there is strong correspondence between an empathizer's response and one's own. In the current studies, participants in the secondhand empathy conditions were more likely to report experiencing the feelings of empathizers; however, they may have nonetheless viewed these feelings as distinct from their own. This would mean that empathy manipulations that are more likely to bridge the gap between self and other (e.g., imagine-self perspectivetaking) may be more likely to produce moralizing effects of secondhand empathy.

#### **Methodological Limitations**

It is possible that people did not believe that the empathizer actually displayed a high level of empathy. In other words, participants may have viewed the empathizer's display of empathy as modest, and as a result, only vicariously experienced a modest level of empathy themselves. This would present a methodological limitation of our studies: a stronger, more convincing expression of empathy may elicit stronger secondhand responses. While our data cannot speak to this possibility – given that we did not measure or manipulate the degree to which the empathizer expressed empathy – future work could examine this possibility by, for example, manipulating the degree of empathy displayed by empathizers (e.g., high empathy vs. low empathy) and testing whether this manipulation impacts the severity secondhand empathic responses.

The methodological paradigm that we employed in all studies presented ostensible interactions between empathizers and victims, and participants were not told that these scenarios were fictitious. The purpose of this method was to increase immersion and engagement with stimuli and manipulations, but it is possible that not all participants believed this cover story and suspected that the scenarios and images were fictitious. We did not measure believability of these scenarios, and so our data cannot speak to whether suspicion influenced results. However, it is worth noting that many studies on empathy, moral attitudes, and judgments deal with hypothetical scenarios (Ellemers et al., 2019), and such scenarios can still be informative for real-world emotions and thoughts (e.g., Bostyn et al., 2018). Thus, it is plausible that participants who were suspicious of the cover story could nonetheless engage with the scenarios in a hypothetical fashion and make judgments accordingly.

## **Differences between Secondhand and Firsthand Empathy**

We should note that while there are reasons we might expect firsthand empathy (i.e., vicariously experiencing a victim's suffering) to have a greater effect than second and empathy - such as the greater degree of direct contact with a victim's suffering – we did not actually find substantial differences between the two in Study 1. It is possible that secondhand and firsthand empathy evoked similar levels of moralization and concern in this study but for different reasons. For example, firsthand empathy may involve stronger direct contact with a victim's suffering, while second and empathy may involve weaker contact with a victim's suffering but a higher degree of social cueing due to greater engagement with a third-party empathizer (see section below for discussion of potential mechanisms behind second and empathy). In other words, while firsthand empathy may offer greater potential for moralization in some ways (i.e., greater contact with victims), secondhand empathy may offer greater potential for moralization in other ways (i.e., greater potential for social influence), and these differences may effectively cancel out when directly comparing the two. We did not test for these potential differences in explanatory mechanisms, and thus it is an open question whether second and firsthand empathy may involve different underlying processes.

It should also be noted, however, that there were differences between firsthand and secondhand empathy in the pilot study: while firsthand and secondhand empathy did not significantly differ between each other in moralization and concern, only firsthand empathy significantly increased moralization relative to detachment. It is possible that this is because of methodological differences between the pilot study and Study 1. For example, in the pilot study, we used morally ambiguous scenarios, while in Study 1, we used direct moral violations. When harm done to a victim is less clear and direct (as in the pilot study), it is possible that people are more inclined to moralize this harm if they directly empathize with the victim; otherwise, people may have greater difficulty viewing the target as a victim given the scenario's greater moral ambiguity. Furthermore, it may be more difficult to understand why an empathizer is showing empathy for a victim in cases of ambiguous harm, perhaps making people less willing or able to vicariously experience an empathizer's reaction themselves.

In addition, firsthand and secondhand empathy were contrasted against an emotional detachment control in the pilot study; while the secondhand empathy condition was not significantly higher in moralization than the detachment condition on moralization outcomes in the pilot, this difference was significant across Studies 1-3. This may be because of the greater moral ambiguity in the pilot study: it may be more difficult for people to apply moral judgments to an ambiguous scenario if they are only instructed to indirectly engage with an empathizer (rather than with the victim directly). This may mean that secondhand empathy may be more sensitive to the type of moral violation than firsthand empathy and may only influence moralization when involving clear and direct violations.

Our studies also do not indicate whether our results are specific to *secondhand* empathy per se. While we compared firsthand and secondhand empathy in Study 1, we found little difference between the two and focused solely on secondhand empathy in Study 2 and Study 3. It is possible that the effects documented in Study 2 and Study 3 – including heterogenous findings between studies – would also occur if participants were instructed to show empathy for victims

directly rather than for empathizers. This would suggest that the heterogeneity of results here are not specific to secondhand empathy and may be a function of how people empathically responded to the scenarios and manipulations more generally. This possibility could be examined in a follow-up study by experimentally separating target type (empathizer vs. victim), empathy instruction (empathy vs. detachment vs. control), and stigmatization (stigma vs. non-stigma), in order to diagnose similarities or differences between firsthand and secondhand empathy in the locus of effects and responsiveness to stigmatized targets.

#### **Secondhand Empathy for Stigmatized Targets**

In Study 3, people reported lower concern for victims who were described as belonging to a stigmatized group (i.e., people with drug addictions). However, the stigmatized status of victims had no bearing on how people responded to secondhand empathy instructions. The null interaction between stigma and empathy instruction is again inconsistent with prior literature, which suggests that people's baseline level of empathy for targets may determine the strength of empathy instruction effects (McAuliffe et al., 2020). One reason for this may be that victim stigma matters less when empathy instructions are not directed towards the victims themselves: because people were instructed to vicariously experience an empathizer's empathic emotions towards the victim, they may have viewed their own level of empathy for the victim as irrelevant to this task.

Alternatively, it could be that people are relatively willing to engage in the exercise of empathizing with stigmatized targets even if they feel less empathy for them at baseline. Prior research does show that empathy instruction can increase concern for stigmatized group members (Batson et al., 2002); the findings here might simply suggest that this occurs to a similar degree as with non-stigmatized group members.

### Mechanisms and Processes behind Secondhand Empathy

#### **Belief-Sharing vs. Emotion-Sharing**

In Study 3, second-and empathy increased how much people believed it was important to extend concern towards victims. Although not an emotional response, this "belief-sharing" can nonetheless be considered empathic, as it involves vicariously taking on another's internal thoughts. This suggests a potential distinction between vicarious experience of another's emotional state versus vicarious experience of another's beliefs. Furthermore, because secondhand empathy influenced both experience-sharing and belief, both of these responses are potential explanatory mechanisms for the small effect of second hand empathy on empathic concern. Additionally, while our primary hypothesis was that secondhand empathy would spur moralization and concern, the finding that secondhand empathy led people to view concern for victims with greater importance is not insignificant, as it suggests that second and empathy could be a vehicle for acute changes in beliefs. It is also notable that when participants engaged in secondhand empathy, beliefs about empathy's importance remained a significant predictor of moralization when controlling for empathic concern for victims – while emotional experience sharing did not – suggesting that vicarious experience of an empathizer's beliefs may play a stronger role in moralization compared to vicarious experience of an empathizer's emotions. Thus, the downstream outcomes of vicariously taking on another's beliefs about empathy would be a fruitful area to explore in future work.

#### Social Norms

As discussed in the Introduction, secondhand targets introduce the potential of social influence. In Study 2 and Study 3, we attempted to isolate effects of secondhand empathy from social influence in general by testing the secondhand empathy manipulation against a no-

instruction control: this allowed us to test whether *empathy* for a secondhand target's experience influences moral attitudes beyond the *presence* of a secondhand target. However, as discussed, our findings were mixed when comparing the secondhand empathy condition to this no-instruction control.

It may be that because secondhand empathy inherently involves an additional target, it is difficult to disentangle secondhand empathy from social norming entirely. Thus, future work on secondhand empathy may benefit from examining both empathy and social forces simultaneously, as well as potential dynamic interactions between the two. For example, secondhand empathy may be more pronounced when there is greater potential for social influence. If a person is highly motivated to glean social information from a target (e.g., because the target is socially close), they may be more amenable to considering and taking on this target's thoughts and feelings. In addition, secondhand empathy may be more pronounced when there are a greater number of empathizers present. Because the current studies were focused on identifying unique effects of experience-sharing with secondhand targets, these nuanced questions regarding social influence and how they may intersect with empathy are beyond the scope of the current work.

#### Perceptions of Harm and the Causal Sequence of Secondhand Empathy

One limitation of the current studies is that it is unclear whether perceptions of harm to a victim is necessary at the outset for secondhand empathy to lead to moralization. We used simple and direct moral violations that were found to be viewed as moderately immoral in prior studies (Clifford et al., 2015). Because participants read these scenarios *before* engaging in the secondhand empathy portion of the trial, it is reasonable to expect that participants already perceived harm to the victim before attempting to experience the empathizers' empathic

response. It is unclear whether this sequence is necessary. It is possible, for example, that if a person experiences another's empathic emotion towards a victim but does not actually perceive the victim as a "victim of harm," it may be more difficult to direct this empathy towards the victim themselves. Conversely, directing concern towards a victim may lead one to infer that harm has been done to them even if one did not initially view them as a victim (e.g., the backwards inference process described by Batson et al., 1995), meaning that initial perceptions of harm are not necessary for secondhand empathy to lead to moralization.

A related concern is the causal sequence of secondhand empathy and moralization more broadly. Throughout this paper, we have assumed the following sequence: a person vicariously experiences an empathizer's emotional response to a victim, feels concerned for the victim themselves, and this concern subsequently facilitates moralization of harm. This sequence is consistent with prior literature on the link between empathic concern and moralization (Batson et al., 1995; Feinberg et al., 2019), which has formed much of the theoretical basis for this paper. However, it is also possible that vicariously experiencing an empathizer's concern facilitates moralization directly, which then facilitates concern for victims. For example, direct contact with an empathizer's emotions through experience-sharing may lead people to recognize that harm has been done to the victim; this recognition of harm may lead to greater valuation of the victim's suffering and subsequently greater concern. This process would nonetheless be empathic – given that it would occur through experience-sharing with an empathizer – but would suggest a different sequential process than what we have assumed in this paper. Future studies could thus attempt to experimentally unpack this sequential process by manipulating the presence or absence of perceptions of harm along with secondhand empathy.

### **Other Processes**

There are a number of other features of the process of secondhand empathy that we did not empirically explore in this paper. One such unexplored feature is the assumptions that people may make about empathizers. For example, participants in our studies may have viewed the empathizer targets as particularly morally good for showing empathy towards a stranger; these upward moral comparisons can lead one to view the behavior of others as morally exceptional and thus irrelevant to one's behavior (Monin, 2007). In our studies, this may have weakened effects of secondhand empathy because participants felt less need to extend concern towards victims themselves, as this was viewed as merely an example of exceptional behavior from the empathizer. Similarly, people may also believe that when a victim is already shown empathy by another person, it is no longer incumbent upon oneself to do the same.

People may have also assumed that the empathizers responded with empathy because the empathizers themselves were victims of similar moral transgression in the past. The implications of this possibility are unclear. For example, it may have led to the perception that both empathizer and victims were part of a similar social group as a result of their shared adversity, creating additional perceived distance between oneself and both targets and thus a lower willingness to empathize. However, people did show greater experience-sharing for empathizers when instructed to do so, suggesting that this potential group dynamic did not serve as a barrier to empathy.

Additionally, if people assumed that empathizers were victims of prior transgressions, they may have viewed the empathizers essentially as victims themselves. This possibility might mean that there was little distinction between empathy directed towards empathizers or victims. We attempted to minimize this possibility by describing both targets as participants in a randomized experiment with no prior association or relationship with each other; the empathizer target descriptions were also entirely based on their empathic response to the victim. Because participants reported feeling the empathizers' emotions more when instructed to do so and these emotions were purely described as empathy for the victim, we can reasonably infer that participants in the secondhand empathy condition were responding primarily to the empathizer's empathic response rather than the empathizer's perceived status as a prior victim. In addition, people reported substantially greater empathic concern for victims than for empathizers across studies in Studies 1-2, suggesting that people likely ascribed greater victimhood to victims compared to empathizers. Nevertheless, the importance of perceiving prior adversity in the empathizer could be tested experimentally by manipulating whether empathizers have prior experience (vs. not) with similar adversities as the victim, and future research may employ these methods to examine such questions.

#### **Secondhand Empathy and Empathic Motivation**

As an exploratory question, we examined how secondhand empathy may influence perceptions of effort, given that empathy is often viewed as cognitively effortful (Cameron et al., 2019). Experimental manipulations largely did not influence cognitive effort, negative affect, or efficacy in any study. While people did report greater effort when presented with stigmatized (vs. non-stigmatized) targets in Study 3, this did not influence how people responded to secondhand empathy manipulations and all other experimental effects on effort were non-significant. Because we compared firsthand empathy and secondhand empathy in Study 1, this may mean that vicariously experiencing a victim's internal state is viewed as similarly cognitively challenging as vicariously experiencing another's empathy for this victim. There are multiple implications of this result. First, perceptions of cognitive effort can motivate how often a person chooses to experience empathy (Cameron et al., 2019). If firsthand and secondhand empathy are perceived to be similarly cognitively challenging, this may mean that people are just as likely to choose to experience secondhand empathy as they are with firsthand empathy. There may, however, be instances where secondhand and firsthand empathy differ in their perceived cognitive challenge and where people show a preference for one type over the other. For example, if a victim is socially distant and an empathizer is socially close, it may be easier to show empathy for the latter. Such dynamics may influence when and for whom people choose to experience secondhand versus firsthand empathy.

Second, the relative frequency with which people choose to experience secondhand empathy also raises questions about how often it occurs outside of the lab. People likely encounter empathic responses from others in everyday life, and the responses from empathizer targets in our studies were intended to reflect the kinds of empathic reactions from others that people may naturalistically encounter. However, the explicit instruction to vicariously experience an empathizer's empathic emotions may have been artificial; it remains unclear how often this occurs in everyday life. It should be noted that this limitation is not exclusive to this set of studies: many paradigms in moral psychology, for example, have been criticized as overly artificial and lacking in ecological validity (Bauman et al., 2014; FeldmanHall et al., 2012). Researchers have increasingly employed methods such as ecological momentary assessment (EMA) to examine how both moral (Hofmann et al., 2014) and empathic (Depow et al., 2021) experiences occur in everyday life, and such techniques could be applied to examine the day-today occurrence of secondhand empathy.

#### Empathy as a "Good" or "Bad" Force for Moralization

It is important to note that there are many debates about whether empathy is an optimal guide to moral decision making. Empathy – at least when defined as the vicarious sharing of others' experience – has often been criticized as capricious, biased, and partial, leading people to prioritize individuals or groups for whom they feel empathy (Bloom, 2017; Decety, 2021; Prinz, 2011). Furthermore, the moralization of victim suffering is not inherently a positive outcome: in many cases, a person may believe that a victim's suffering is not a legitimate moral issue. The current research was not focused on whether a person's response to another's distress is morally optimal. Rather, we were interested in how secondhand empathy may produce moralization: the increase in moral relevance of a judgment. While increasing moral concern can often be considered a positive outcome, this depends on one's own beliefs and could lead to a number of downstream positive or negative behavioral consequences. Thus, the ethical ramifications of moralization and its behavioral consequences – while important – are not within the empirical scope of this paper.

#### **Limitations and Extensions**

#### **Facets of Empathy**

There may be different predictions for secondhand empathy depending on how "empathy" is defined, manipulated, and measured. Throughout all studies, we manipulated empathy through experience sharing, where participants were instructed to imagine what the empathizer was feeling and to feel this themselves. We chose to manipulate empathy in this manner because it seemed most likely to compel participants to take on the empathizer's empathic response to victims. While we might expect weaker effects for different facets of empathy (e.g., perspective-taking, concern), our data cannot speak to how secondhand empathy may vary by different empathy manipulations.

In addition, although the empathizers' empathy in our studies emphasized emotional experience, these descriptions were not limited to one specific facet. We may expect different effects of secondhand empathy depending on the empathy expressed by the empathizer. For example, secondhand empathy may be more potent when an empathizer is expressing compassion: compassion is often described as other-oriented and positive (Bloom, 2017), and thus people may be more likely to moralize victim suffering when vicariously experiencing an empathizer's compassion (vs. an empathizer's experience-sharing or perspective-taking). Indeed, much prior work on empathy and moralization has focused on compassion (Batson et al., 1995; Feinberg et al., 2019). Finally, our empathy outcomes were limited to empathic concern (measured for both victims and empathizers in Study 1 and Study 2) and experience-sharing (measured for empathizers in Study 3), and thus it is unclear how secondhand empathy may influence other typical empathic outcomes (e.g., personal distress, perspective-taking), as well as helping behaviors that may arise from empathic responses.

It is also worth noting that some empathic phenomena may be more applicable than others when applied to secondhand contexts. For example, we measured empathic concern towards empathizers in Studies 1 and 2, which was only weakly associated with outcomes of moralization and empathic concern for victims. This concern for empathizers measure was also not associated with trait empathic concern or perspective taking. However, when replacing this measure with experience-sharing for empathizers in Study 3, this outcome was strongly correlated with moralization, concern for victims, and empathy importance, and was also associated with trait empathic concern and perspective-taking. Furthermore, concern for empathizers was associated with greater feelings of negative affect in Studies 1 and 2 and lower feelings of efficacy on the task in Study 1; in Study 3, however, experience-sharing for empathizers (like moralization, empathic concern for victims, and empathy importance) was associated with greater efficacy and lower negative affect while completing the task. These correlational results together may mean that experience-sharing (vs. concern) for empathizers more meaningfully reflects empathic responses, given its positive association with other trait and state empathy measures and similar associations to negative affect and efficacy as other empathy-relevant outcomes.

Empathic concern for empathizers, however, was not consistently associated with other empathy measures and showed different relationships from these measures to effort-related measures (e.g., negative affect, efficacy). As discussed, this may be because empathizers in these studies were not clear victims of harm and thus people may have had difficulty reporting their level of concern towards these empathizers; as a result, this measure may have captured other, non-empathic psychological experiences while completing the task. These results suggest that the facet of empathy being measured should be carefully considered when examining secondhand empathy. It should also be noted that while concern for empathizers may not have tracked with empathy in these studies, it may be a more meaningful measure in other secondhand contexts (for example, if an empathizer was also a victim of harm).

#### Moral Psychological Stimuli

In the current studies, we used relatively simple and straightforward examples of moderate immoral behavior (i.e., Clifford et al., 2015). While using standardized scenarios in this manner allowed for more experimental control by holding many relevant factors constant (e.g., severity, complexity), the landscape of moral judgment is significantly more intricate and varied than the stimuli we used. Moral judgments of a behavior can be shaped and molded by myriad factors, including judgments of knowledge and belief (Young et al., 2007), intentionality (Malle & Knobe, 1997), character perceptions (Uhlmann et al., 2015), harm perceptions (Schein & Gray, 2018), and disgust/purity (Chapman & Anderson, 2013; Horberg et al., 2009), to name a few examples. In addition, research on moralization often deals with behaviors or scenarios that are widely viewed as morally neutral (e.g., eating meat; Feinberg et al., 2019). It is possible that secondhand empathy may produce stronger effects when a person begins from a morally neutral standpoint: people might be more amenable to shifting their moral viewpoints when they do not have a strong default moral judgment. Similarly, there are many moral domains – such as politics – where attitudes are often strongly held and inflexible (Skitka, 2010; Skitka et al., 2021).

Lastly, the studies here are limited to instances of *immoral* rather than *moral* behavior. A worthwhile extension, then, is whether secondhand empathy increases positive moral judgments when a person is the recipient of a morally good action.

### **Target Type**

While the behaviors in the current studies are limited to specific types of immoral actions, the target stimuli are additionally limited to specific visual images. In all studies, target race and emotional expression were held constant. Such target features can be an important determinant for moral judgments (Hester & Gray, 2020). In addition, people's positive or negative attitudes towards the empathizer target may matter for how people empathize with these targets: as mentioned, more positive attitudes towards an empathizer may make it more likely for secondhand empathy to produce positive attitudes (and thus, moralization and concern) towards victims. Similarly, people are more likely to extend empathy towards people who are socially

close to them (Depow et al., 2021), and thus the strength of secondhand empathy as a moral force may depend on one's relationship to the empathizer target. Future studies can thus include explicit manipulations of empathizer target closeness and attitudes to examine these possibilities.

## Conclusion

We provide the first demonstration for secondhand empathy as a phenomenon and provide initial (albeit mixed) evidence that it may play a role in the formation of moral concern for victims. Future work can seek to investigate when and how secondhand empathy may serve as a guide for morality.

## Supplementary Materials, Methods, and Results

## **Pilot Study Materials**

## **Experimental Manipulation Wording**

## Secondhand Empathy Condition

*Introductory Screen*: "In this study, you will read several scenarios where person describes something that they did in the past. Please carefully read each scenario. After reading each scenario, you will be shown an image of a person who feels for somebody from the scenario and understands how they feel. You will be instructed to write a couple sentences empathizing with the person in the image. While writing these sentences, you should empathically focus on how the person feels. Try to feel what the person feels, and empathically focus on their internal experience."

*Trial Screen:* "This is an image of [empathizer target name], who feels for [victim target name] and understands how he/she feels. Please write a couple sentences empathizing with [empathizer target name]. You should empathically focus on how [empathizer target name] feels. Try to feel what [empathizer target name] feels, and empathically focus on his/her internal experience."

## Firsthand Empathy Condition

*Introductory Screen:* "In this study, you will read several scenarios where a person describes something that they did in the past. Please carefully read each scenario. After reading each scenario, you will be shown an image of somebody from the scenario. You will be instructed to write a couple sentences empathizing with the person in the image. While writing these sentences, you should empathically focus on how the person feels. Try to feel what the person feels, and empathically focus on their internal experience."

*Trial Screen:* "This is an image of [victim target name]. Please write a couple sentences empathizing with [victim target name]. You should empathically focus on how [victim target name] feels. Try to feel what [victim target name] feels, and empathically focus on his/her internal experience."

## **Control Condition**

*Introductory Screen:* "In this study, you will read several scenarios where a person describes something that they did in the past. Please carefully read each scenario. After reading each scenario, you will be shown an image of somebody from the scenario. You will be instructed to write a couple sentences describing this person. While writing these sentences, you should detach yourself from the emotional experiences, feelings, and beliefs of this person. Try to be objective, and focus on the person's external appearance."

*Trial Screen:* "This is an image of [victim target name]. Please write a couple sentences describing [victim target name]. You should detach yourself from the emotional experiences,

feelings, and beliefs of [victim target name]. Try to be objective, and focus on [victim target name]'s external appearance.

# Vignettes

Below is a list of vignettes from Knutson et al. (2010) that were included in the pilot study.

	Vignette
Trial 1	I had a party and didn't invite my friend, Anna, because I didn't think that she would mix well with the other guests. The other guests were all new friends and she was an old friend. I asked one of the attendees not to mention it to her, as he is a mutual acquaintance.
Trial 2	My father, Paul, is manic-depressive. He is very difficult to deal with and has made life really hard and everyday situations unpleasant. I talk about him in a really negative way because it is so hard for me to deal with.
Trial 3	My friend, Sarah, has always been putting down all the men I date because she is jealous. I recently confronted her about it and said some really mean comments to her about how no man wants her. I hurt her feelings a lot.
Trial 4	I left my second marriage and I left my step-kids there too. My youngest stepson, Chris, has some disabilities, but I left him there. I cannot cope with his druggy, drinking father and so I decided to leave everything behind.
Trial 5	I said some bad things about this guy, Jacob, that I work with. He told me some secrets that I promised not to share, but I did anyway. He hasn't found out but I am afraid if he does, he might do something crazy.
Trial 6	Instead of contributing more to my mother Kimberly's economic stability, by helping her out monetarily in her retirement, I travel. I spend money on travel, on vacations. Some of that money could go to her.
Trial 7	For the last two years, I have been dating a woman, Jessica. She is really serious about settling down but I'm not interested in that. But I want to keep dating so I haven't been honest to her about my feelings.
Trial 8	When I was a scriptwriter in Hollywood I was in a writer's group and sold a TV show and got an agent. My friend Sean asked if I could send his stuff to my agent. I didn't send his stuff to my agent; instead I told my friend that my agent didn't like his work.

# Image Codes

	Image Code
Trial 1	WF-001-003-N
Trial 2	WM-258-512-N
Trial 3	WF-033-002-N
Trial 4	WM-209-038-N
Trial 5	WM-254-152-N
Trial 6	WF-251-014-N
Trial 7	WF-228-196-N
Trial 8	WM-257-161-N

## **Studies 1-3 Materials**

## **Introductory Screen (Studies 1-2)**

Participants read the text below at the start of the study; this text was modified in Study 3

as part of the victim stigma manipulation (see "Victim Stigma Manipulation (Study 3)" section).

"In this study, you will read about participants from a previous research study on listening and empathy. During the study, we had pairs of strangers talk to each other. One person talked about a past negative experience they had, while the second person listened. The first person described what the experience was like, while the second person described what it was like to listen. After the study, we took photos of the participants."

## Victim Stigma Manipulation (Study 3)

### **Stigma Condition**

*Introductory Screen:* "In this study, you will read about participants from a previous research study. In this previous study, we were interested in listening and empathy between middle-class Americans and people with a history of drug abuse and addiction. We recruited some research participants who described themselves as middle-class and American, and others from organizations that provide counseling services for people with drug addictions.

During the study, we had pairs of strangers talk to each other. One person, who has a history of becoming addicted to hard drugs (e.g., heroin, cocaine, etc.), talked about a past negative experience they had, while the second person, a middle-class American, listened. The first person described what the experience was like, while the second person described what it was like to listen. After the study, we took photos of the participants."

*Trial Screen:* "[Victim target name] has a history of drug abuse and addiction. [Empathizer target name] is a middle-class American who listened to [victim target name] describe the scenario below, felt for him/her, and understood how he/she felt."

### Non-Stigma Condition

*Introductory screen*: "In this study, you will read about participants from a previous research study. In this previous study, we were interested in listening and empathy between people who identify as middle-class Americans. We recruited research participants who described themselves as being middle-class and American.

During the study, we had pairs of strangers talk to each other. One person, who identified as a middle-class American, talked about a past negative experience they had, while the second person, another middle-class American, listened. The first person described what the experience was like, while the second person described what it was like to listen. After the study, we took photos of the participants."

*All Trial Screens:* "[Victim target name] is a middle-class American. [Empathizer target name] is a middle-class American who listened to [victim target name] describe the scenario below, felt for him/her, and understood how he/she felt."

## **Empathy Manipulation Wording**

## **Empathy Condition (Studies 1-3)**

*Introductory Screen*: "You will read about several of these pairs. After reading, you will be instructed to focus on one person in the pair and feel empathy for this person. To feel empathy, try to imagine what the person is feeling and feel this yourself."

*Trial Screen 1*: "On the next page, you will be instructed to feel what [empathizer or victim target name] feels."

*Trial Screen 2*: "Try to imagine what [empathizer or victim target name] is feeling while feeling this yourself. Please write down one or two sentences about what [empathizer or victim target name] feels."

## **Detachment Condition (Studies 1-3)**

*Introductory Screen:* "You will read about several of these pairs. After reading, you will be instructed to focus on one person in the pair and remain objective. To be objective, try to remain emotionally detached from what the person is feeling."

*Trial Screen 1:* "On the next page, you will be instructed to describe [empathizer or victim target name]."

*Trial Screen 2:* "Try to describe [empathizer or victim target name] objectively while remaining emotionally detached. Please write down one or two sentences describing [empathizer or victim target name]."

## No-Instruction Control Condition (Studies 2-3)

*Introductory Screen:* "You will read about several of these pairs. After reading, you will be instructed to focus on one person in the pair and write about this person."

*Trial Screen 1*: "On the next page, you will be instructed to write about [empathizer target name]."

Trial Screen 2: "Please write down one or two sentences about [empathizer target name]."

# **Scenarios and Target Descriptions**

# Scenarios (adapted from Clifford et al., 2015)

Listed below are harm scenarios presented to participants on each trial of Studies 1-3.

	Harm Scenario
Trial 1	A girl dumped her hot coffee on Amy, who is dating the girl's ex-boyfriend.
Trial 2	A woman commented out loud about how fat Lauren looked in her jeans.
Trial 3	A man canceled a blind date with Jamie as soon as he saw her.
Trial 4	James was hit on the side of his head by his wife for coming home late.
Trial 5	Alan's friend laughed at him when he realized Alan's dad is the janitor.
Trial 6	A woman slapped Lily when they were arguing in the parking lot.
Trial 7	Chris sat on a thumbtack placed there by another student.
Trial 8	A girl told Ashley that she was too ugly to be a varsity cheerleader.

## Victim Target Quotes (Victim Condition – Study 1)

Listed below are quotes that were included underneath the image the victim target on

each trial of Study 1.

	Victim Name	Victim Quote
Trial 1	Amy	"The coffee being thrown on me really hurt and I was surprised she did that."
Trial 2	Lauren	"I felt really insecure after the woman said that, she really hurt my feelings."
Trial 3	Jamie	"I felt really upset that my blind date was canceled, I was confused."
Trial 4	James	"I already felt guilty for being late and my head really hurt."
Trial 5	Alan	"I felt betrayed and humiliated being laughed at by my friend like that."
Trial 6	Lily	"I didn't expect that woman to slap me so hard, I became really mad about it."
Trial 7	Chris	"I felt a lot of pain sitting on the thumbtack and was also mildly embarrassed."
Trial 8	Ashley	"Being called ugly made me feel really bad and uncomfortable about trying out for cheerleading."

# Empathizer Targets (Empathizer Condition – Studies 1-3)

Listed below are quotes that were included underneath the image of the empathizer target on each trial of the Empathizer condition in each study.

	Empathizer Name	Empathizer Quote
Trial 1	Jessica	"I felt bad for Amy, hot coffee sounds painful and she seemed really distressed."
Trial 2	Mary	"I felt bad for Lauren, what the woman said was really mean and she seemed hurt."
Trial 3	Kate	"I felt bad for Jamie, she seemed sad about her canceled date."
Trial 4	David	"I felt sorry for James and I'm sure he felt bad for coming home late."
Trial 5	Charles	"It's embarrassing to be picked on by your friend, I felt sorry for Alan."
Trial 6	Erica	"Lily seemed enraged about that woman slapping her, I felt bad for her."
Trial 7	Paul	"I really felt for Chris, it sounded embarrassing and sitting on a thumbtack sounded like it hurt."
Trial 8	Kim	"I imagine Ashley felt insecure after being called ugly and was afraid to try out to be a cheerleader."

# Image Codes

Listed below are codes for each image used from the Chicago Face Database (Ma et al.,

2015). The images used were identical for each study.

	Image Code
Trial 1	WF-001-003-N
Trial 2	WF-033-002-N
Trial 3	WF-228-196-N
Trial 4	WM-012-001-N
Trial 5	WM-209-038-N
Trial 6	WF-217-085-N
Trial 7	WM-037-025-N
Trial 8	WF-022-071-N

# **Supplementary Analyses**

## **Demographics**

Participants reported their race/ethnicity by selecting among several options and were instructed to select all that apply. See Supplemental Table 1 for the race/ethnicity percentages of our samples in all studies.

## **Supplemental Table 1**

Race/Ethnicity Percentages for Study 1, Study 2, and Study 3 Samples	

	Study 1	Study 2	Study 3
White	73.10%	74.40%	63.84%
Black/African-American	7.61%	2.39%	8.04%
Hispanic/Latino	5.33%	3.41%	5.36%
Asian/Pacific Islander	3.55%	7.85%	10.49%
White, Hispanic/Latino	2.79%	5.12%	3.57%
White, Black/African-American	1.78%	1.02%	1.12%
White, Asian/Pacific Islander	1.52%	1.71%	1.34%
Other	1.02%	1.02%	1.12%
White, Black/African-American, Native American	1.02%	0.34%	0.00%
White, Native American	0.76%	0.00%	1.34%
Black/African-American, Hispanic/Latino	0.00%	0.68%	0.67%
Black/African-American, Asian/Pacific Islander	0.00%	0.68%	0.22%
Hispanic/Latino, Native American	0.25%	0.00%	0.22%
Black/African-American, Other	0.25%	0.00%	0.00%
Hispanic/Latino, Other	0.25%	0.00%	0.00%
Black/African American, Native American	0.25%	0.00%	0.22%
White, Other	0.25%	0.68%	0.00%
White, Black/African-American, Hispanic/Latino	0.00%	0.34%	0.45%
Hispanic/Latino, Asian/Pacific Islander	0.00%	0.00%	0.89%
White, Native American, Other	0.00%	0.00%	0.22%
Black/African-American, Native American, Other	0.00%	0.00%	0.22%
White, Hispanic/Latino, Native American	0.25%	0.00%	0.45%

### **Power Analyses**

For all studies, we calculated power using a simulation-based approach with the

"superpower" package in R (Lakens & Caldwell, 2021).

#### Study 1

We analyzed power assuming a sample size of 100 participants per experimental group (for a total sample size of 400) and a standard deviation of 1.00 per group. We aimed to achieve enough power to detect significant main effects of empathy instructions, main effects of target, and a significant interaction between empathy instructions and target type on our primary dependent variables of moralization and empathic concern. While we did not have strong predictions about the nature of the interaction effect, we thought it was most reasonable that effects of empathy instructions on outcomes would be stronger when directed towards the victim target rather than the empathizer target; thus, we assumed this interaction pattern when analyzing power.

#### Study 2

We analyzed power assuming a sample size of 100 participants per group (300 participants in total) and a standard deviation of 1.00 per group, similar to Study 1. We assumed a pattern of results consistent with our a priori hypotheses, where ratings on primary outcomes of moralization and empathic concern would be highest in the empathy condition, followed by the control condition, and lowest in the detachment condition.

#### Study 3

We analyzed power assuming a sample size of 90 participants per group (450 participants in total) and a standard deviation of 1.00 per group. We assumed a pattern of results in which there is a significant interaction between empathy instruction and victim stigma, with pairwise comparisons revealing that the difference between the secondhand empathy condition and noinstruction is greater when victim targets are stigmatized. We also assumed main effects of secondhand empathy instruction, where, collapsing across victim stigma, ratings on primary outcomes are lower in the objective condition compared to the empathy and no-instruction control conditions, as well as a main effect of victim stigma where people report greater empathy and concern when victim targets are non-stigmatized.

### **Condition Coding**

See Supplemental Table 2 for the orthogonal contrast coding used for the empathy instruction variable in Study 2 and Study 3. Inferential statistics for contrast code 1 are reported for each model in the main text, while we did not examine contrast code 2 because it was not relevant to our primary hypotheses.

#### **Supplemental Table 2**

Orthogonal Contrasts for Empathy Instructions in Study 2 and Study 3

Model 1			
	Empathy	Describe	Control
Contrast Code 1	1	-1	0
Contrast Code 2	-1	-1	2
Model 2			
	Empathy	Describe	Control
Contrast Code 1	1	0	-1
Contrast Code 2	-1	2	-1
Model 3			
	Empathy	Describe	Control
Contrast Code 1	0	1	-1
Contrast Code 2	2	-1	-1

### Outliers

In all studies, we tested for outliers by examining studentized deleted residuals and using a cut-off value of |4|. With this criterion, there were two outliers on the moralization outcome and one outlier on the empathic concern (victim) outcome in Study 2. When excluding outliers, the omnibus test remained significant for both moralization, F(2, 288) = 14.16, p < .001,  $\eta^2 = 0.09$ ,

and empathic concern, F(2, 289) = 13.06, p < .001,  $\eta^2 = 0.08$ , and the pattern of results for pairwise contrasts was unchanged (see Supplemental Table 3).

#### **Supplemental Table 3**

Pairwise Comparisons for Moralization and Concern Ratings, Excluding Outliers

	b	df	t	р	95% CI	$\eta^2$
Moralization						
Empathy vs. Detachment	0.68	288	5.03	< .001	[0.42, 0.95]	0.08
Empathy vs. Control	0.17	288	1.25	.212	[-0.10, 0.45]	0.01
Detachment vs. Control	-0.51	288	-3.85	< .001	[-0.77, -0.25]	0.05
Empathic Concern (Victim)						
Empathy vs. Detachment	0.79	289	4.99	< .001	[0.48, 1.10]	0.08
Empathy vs. Control	0.28	289	1.76	.079	[-0.03, 0.60]	0.01
Detachment vs. Control	-0.50	289	-3.28	.001	[-0.80, -0.20]	0.04

*Note.* Because conditions were coded with a 2-unit difference, all *b*'s and 95% CI's are multiplied by two to reflect the estimated mean difference between conditions.

#### **Heterogeneity of Variance**

In Study 1, a Levene's test for heterogeneity of variance was significant for all measures except for concern for the empathizer. This means that our models for these measures show significant heteroscedasticity and may violate the assumption of the general linear model that variances are equal across groups.

However, the models reported in the main text are likely robust to heteroscedasticity. First, the study is well-powered, and heteroscedasticity is more likely to present an issue when sample sizes are small (Penn State Eberly College of Science, 2023). Second, while there was significant heteroscedasticity, this was not severe for most variables. One rule of thumb is that when the sample size is equal across groups, the general linear model is robust to violations of homogeneity of variance if the difference between the lowest and highest variance is less than 4 times (Penn State Eberly College of Science, 2023). Although sample sizes were not equal across groups in the current study, they did not differ substantially. In addition, when comparing variances between groups (see Supplemental Table 7), the highest variance only exceeds the lowest variance by a factor of 4 for the victim manipulation check.

To help ensure that the homogeneity of variance violation did not substantially impact our results, we used two commonly recommended methods for handling significant heteroscedasticity. We transformed the variables for which there was significant heteroscedasticity using a Box-Cox transformation – a common method for eliminating heteroscedasticity (Rosopa et al., 2013) – and tested whether heteroscedasticity was still present. While this transformation eliminated heteroscedasticity for the moralization variable, there was still significant heteroscedasticity across other variables. Because the transformation did not resolve the issue for all variables, we then ran our models using heteroscedasticity-consistent standard errors, which computes standard errors to be robust to violations of homogeneity of variance assumptions (Rosopa et al., 2013). These models yielded the same pattern of results as those reported in the main text. Supplemental Table 4 reports Levene's tests for both transformed and non-transformed variables, Supplemental Table 5 reports inferential statistics for the effect of condition on each variable when using heteroscedasticity-consistent standard errors, and Supplemental Table 6 reports results of these models when transforming variables using a Box-Cox transformation.

Because the violation of the homogeneity of variance was largely non-severe and the pattern of results remain unchanged when applying Box-Cox transformations and heteroscedastic-consistent standard errors, we concluded that we could still adequately test our hypotheses using the general linear models reported in the main text.

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Variable	Levene Test (non-transformed)	Levene Test (transformed)
Moralization	F(3, 390) = 4.32, p = .005	F(3, 390) = 2.58, p = .054
Empathic Concern - Victim	F(3, 390) = 9.83, p < .001	F(3, 390) = 4.75, p = .003
Empathic Concern - Empathizer	F(3, 390) = 0.76, p = .515	х
Manipulation Check - Victim	F(3, 390) = 26.40, p < .001	F(3, 390) = 14.77, p < .001
Manipulation Check - Empathizer	F(3, 390) = 6.46, p < .001	F(3, 390) = 11.09, p < .001

Tests for Homogeneity of Variance for all Dependent Variables – Study 1

# Supplemental Table 5

Dependent Variables by Condition using Robust Standard Errors – Study 1

	b	t	df	p	95% CI
Moralization					
Target	-0.06	-0.58	390	.563	[-0.28, 0.15]
Empathy Instruction	0.52	4.70	390	< .001	[0.30, 0.74]
Target x Empathy Instruction	-0.27	-1.19	390	.234	[-0.71, 0.17]
Empathic Concern - Victim					
Target	-0.07	-0.51	390	.609	[-0.34, 0.20]
Empathy Instruction	1.15	8.41	390	< .001	[0.88, 1.42]
Target x Empathy Instruction	-0.42	-1.53	390	.127	[-0.96, 0.12]
Empathic Concern - Empathizer					
Target	0.45	2.91	390	.004	[0.14, 0.75]
Empathy Instruction	0.65	4.19	390	<.001	[0.34, 0.95]
Target x Empathy Instruction	0.55	1.80	390	.073	[-0.05, 1.16]
Manipulation Check - Victim					
Target	-0.23	-1.45	390	.148	[-0.54, 0.08]
Empathy Instruction	1.73	10.85	390	< .001	[1.42, 2.04]
Target x Empathy Instruction	-0.78	-2.44	390	.015	[-1.40, -0.15]
Manipulation Check - Empathizer					
Target	1.27	7.53	390	<.001	[0.94, 1.60]
Empathy Instruction	1.30	7.69	390	<.001	[0.97, 1.63]
Target x Empathy Instruction	1.29	3.82	390	<.001	[0.62, 1.95]

Dependent Variables by Condition using Box-Cox Transformed Variables – Study 1

	b	t	df	р	95% CI	$\eta^2$
Moralization						
Target	-0.36	-0.66	390	.507	[-1.43, 0.71]	0.00
Empathy Instruction	2.44	4.48	390	<.001	[1.37, 3.51]	0.05
Target x Empathy Instruction	-1.51	-1.39	390	.165	[-3.65, 0.62]	0.01
Empathic Concern - Victim						
Target	-0.27	-0.47	390	.639	[-1.42, 0.87]	0.00
Empathy Instruction	5.25	9.03	390	<.001	[4.11, 6.39]	0.17
Target x Empathy Instruction	-2.02	-1.74	390	.083	[-4.30, 0.27]	0.01
Empathic Concern - Empathizer						
Target	0.20	3.27	390	.001	[0.08, 0.31]	0.03
Empathy Instruction	0.28	4.73	390	< .001	[0.17, 0.40]	0.05
Target x Empathy Instruction	0.26	2.18	390	.030	[0.03, 0.50]	0.01
Manipulation Check - Victim						
Target	-0.84	-1.79	390	.075	[-1.76, 0.08]	0.01
Empathy Instruction	5.41	11.52	390	<.001	[4.48, 6.33]	0.25
Target x Empathy Instruction	-2.73	-2.91	390	.004	[-4.58, -0.89]	0.02
Manipulation Check - Empathizer	•					
Target	0.87	7.31	390	<.001	[0.64, 1.11]	0.12
Empathy Instruction	0.90	7.55	390	<.001	[0.67, 1.14]	0.13
Target x Empathy Instruction	0.87	3.62	390	<.001	[0.40, 1.34]	0.03

# Supplemental Table 7

Variances by Condition – Study 1

	Detachment	Detachment	Empathy	Empathy
	Victim	Empathizer	Victim	Empathizer
Moralization	1.48	1.58	0.90	0.84
Empathic Concern - Victim	2.39	2.58	0.77	1.42
Empathic Concern - Empathizer	2.28	2.54	2.51	2.00
Manipulation Check - Victim	3.54	3.72	0.60	1.67
Manipulation Check - Empathizer	2.70	3.36	3.23	1.91

Heteroscedasticity was only present for the empathic concern (empathizer) measure in Study 2 (see Supplemental Table 8) and the manipulation check (empathizer) in Study 3 (see Supplemental Table 10). Comparing variances between conditions again reveals that this issue was non-severe in both Study 2 (see Supplemental Table 9) and Study 3 (see Supplemental Table 11).

### **Supplemental Table 8**

Homogeneity of Variance Tests for all Dependent Variables – Study 2

Variable	Levene Test (non-transformed)
Moralization	F(2, 290) = 2.45, p = .088
Empathic Concern - Victim	F(2, 290) = 2.46, p = .087
Empathic Concern - Empathizer	F(2, 290) = 3.36, p = .036
Manipulation Check - Victim	F(2, 290) = 2.32, p = .100
Manipulation Check - Empathizer	F(2, 290) = 0.87, p = .418

### **Supplemental Table 9**

Empathic Concern (Empathizer) Variances by Condition – Study 2

	Empathy	Detachment	Control	
Empathic Concern - Empathizer	2.16	1.58	1.82	

### **Supplemental Table 10**

Homogeneity of Variance Tests for all Dependent Variables – Study 3

Variable	Levene Test (non-transformed)
Moralization	F(5, 442) = 1.57, p = .168
Empathic Concern - Victim	F(5, 442) = 1.22, p = .301
Experience Sharing	F(5, 442) = 1.16, p = .329
Empathy Importance	F(5, 442) = 1.75, p = .121
Manipulation Check - Empathizer	F(5, 442) = 5.15, p < .001
Manipulation Check - Victim	F(5, 442) = 1.69, p = .136

		Manipulation Check (Empathizer)
Empathy	Stigma	0.95
	Non-Stigma	1.04
Detachment	Stigma	2.59
	Non-Stigma	2.45
Control	Stigma	1.88
	Non-Stigma	2.50

Manipulation Check (Empathizer) Variances by Condition – Study 3

#### **Between and Within-Subjects Variance**

Because participants responded to 8 scenarios, we conducted several multilevel models (using the "nlme" package in R; Pinheiro et al., 2017) to examine how much variance in participants' responses to the moralization and empathic concern (victim) measures resided at the between-person and within-person (i.e., by scenario) level for Studies 1-3. We conducted this analysis by treating scenario as an 8-level categorical variable and creating 7 orthogonal contrasts between scenarios using a Helmert coding strategy (see Supplemental Table 13 for coding). We included all contrasts as level-1 predictors with random intercepts and random slopes, with experimental conditions included as level-2 predictors (using the same coding schemes as those reported in the main text) along with all cross-level interaction terms between scenario contrasts and experimental condition. The majority of the variance resided between-person, though there was still some variance within-person – indicating that the scenario type may have influenced how people assessed moralization and concern. See Supplemental Table 12 for the percentage of between-person, within-person, and unexplained (residual) variance per study for the moralization and empathic concern (victim) measures.

We additionally examined all two-way and three-way interactions between scenario and experimental condition from these models. In Study 1, there were no interactions between the effects of scenario, empathy instruction, or target type on moralization (ps > .080) or empathic concern (ps > .086). Similarly, there were no interaction effects between condition and scenario in Study 2 for either moralization (ps > .065) or empathic concern (ps > .093).

In Study 3, there were four small interactions between scenario effects and empathy instruction on empathic concern for victims: these interactions were between contrast 6 (i.e., contrasting trial 7 against trials 1-6) and the pairwise contrast between the empathy and control condition (p = .021), contrast 6 and the pairwise contrast between the empathy and detachment condition (p = .003), contrast 2 (i.e., contrasting trial 3 against trials 1 and 2) and the pairwise contrast between the empathy and control condition (p = .037), and contrast 2 and the pairwise contrast between the detachment and control condition (p = .013). All other two-way and three-way interaction effects were non-significant for moralization (ps > .052), and there were no significant two-way or three-way interactions for moralization (ps > .071). Because most interaction effects were non-significant and the significant interaction effects further.

Study 1		
	Moralization	Empathic Concern (Victim)
Between	62.05%	65.88%
Within	29.16%	24.66%
Residual	8.80%	9.46%
Study 2		
	Moralization	Empathic Concern (Victim)
Between	64.97%	60.75%
Within	25.87%	29.29%
Residual	9.16%	9.97%
Study 3		
-	Moralization	Empathic Concern (Victim)
Between	58.32%	59.75%
Within	32.75%	30.40%
Residual	8.92%	9.84%

Between- and Within-Person Variance per Study for Moralization and Concern

## **Supplemental Table 13**

	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7	Trial 8
Contrast 1	-1	1	0	0	0	0	0	0
Contrast 2	-1	-1	2	0	0	0	0	0
Contrast 3	-1	-1	-1	3	0	0	0	0
Contrast 4	-1	-1	-1	-1	4	0	0	0
Contrast 5	-1	-1	-1	-1	-1	5	0	0
Contrast 6	-1	-1	-1	-1	-1	-1	6	0
Contrast 7	-1	-1	-1	-1	-1	-1	-1	7

Coding Strategy for Trial-Level Effects

We also examined reliability across trials for our primary outcome measures of

moralization and empathic concern for victims, as an additional way to examine potential triallevel variability. This analysis revealed high reliability across trials for moralization (Study 1:  $\alpha$   $\alpha = 0.91$ ; Study 3:  $\alpha = 0.91$ )

### Exclusions

Participant data exclusions did not appear to differ substantially by condition. See

Supplemental Table 13, 14, and 15 for rates of participant exclusions by condition in Study 1, 2,

and 3, respectively.

# **Supplemental Table 13**

Number of Participants Excluded in Each Condition – Study 1

	Victim	Empathizer
Empathy	0 (0.00%)	1 (1.01%)
Detachment	2 (2.17%)	3 (3.09%)

### **Supplemental Table 14**

Number of Participants Excluded in Each Condition – Study 2

	Exclusions
Empathy	1 (1.12%)
Detachment	2 (1.81%)
Control	4 (3.96%)

#### Supplemental Table 15

Number of Participants Excluded in Each Condition – Study 3

	Non-stigma	Stigma
Empathy	0 (0.00%	0 (0.00%
Detachment	0 (0.00%	2 (2.56%)
Control	1 (1.35%)	1 (1.27%)

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# **Stephen Anderson**

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## PEER-REVIEWED PUBLICATIONS

- Anderson, S., Cameron, C. D., & Beaty, R. E. (2023). Creative empathy. *Creativity Research Journal*. doi: 10.1080/10400419.2023.2229649
- Anderson, S. & Cameron, C.D. (2023). How the self guides empathy choice. *Journal of Experimental Social Psychology*, *106*, 104444.
- Cameron, C.D., Scheffer, J. A., Hadjiandreou, E., & Anderson, S. (2022). Motivated empathic choices. *Advances in Experimental Social Psychology*, *66*, 191-279.
- Gray, K., Anderson, S., Chen, E., Kelly, J. M., Christian, M., Patrick, J., Huang, L., Kennett, Y. N., & Lewis, K. (2019). "Forward Flow": A new measure to quantify free thought and predict creativity. *American Psychologist*, 74(5), 539-554. doi: 10.1037/amp0000391
- Meyer, M. N., Heck, P. R., Holtzman, G. S., Anderson, S., Cai, W., Watts, D., & Chabris, C. F. (2019). Objecting to experiments that compare two unobjectionable policies or treatments. *Proceedings of the National Academy of Sciences, 116*(22), 10723-10728. doi: 10.1073/pnas.1820701116

## **CONFERENCE PRESENTATIONS**

- **Anderson, S.** & Cameron, C.D. (2023). The self guides empathy choice. Symposium presentation at Society for Affective Science Annual Conference, Long Beach, CA.
- Anderson, S. & Cameron, C.D. (2023). Examining the moral significance of secondhand sources of empathy. Video presentation at Pennsylvania State University Graduate Exhibition, State College, PA 2023.
- \*Received Third-Place Award in Video category.

Anderson, S., Cameron, C. D., & Beaty, R. (2021). Creative empathy. Poster presented as flash task at the Society for Affective Science conference, Online.
\*Selected as "Top-Ranked Abstract" and published as supplement in *Affective Science*.

## **AWARDS & HONORS**

Delbert F. and Marie S. Welch Graduate Fellowship	2023-2024
Superior Teaching and Research (STAR) Award (Awarded \$2000)	2023
Office of Research and Graduate Studies Dissertation Award (Awarded \$1500)	2023

May 2024 Aug 2020

May 2016