

Lying Because We Care:  
Compassion Increases Prosocial Lying

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### Abstract

Prosocial lies, or lies intended to benefit others, are ubiquitous behaviors that have important social and economic consequences. Though emotions play a central role in many forms of prosocial behavior, no work has investigated how emotions influence behavior when one has the opportunity to tell a prosocial lie—a situation that presents a conflict between two prosocial ethics: lying to prevent harm to another, and honesty, which might also provide benefits to the target of the lie. Here, we examine whether the emotion of compassion influences prosocial lying, and find that compassion causally increases and positively predicts prosocial lying. In Studies 1 and 2, participants evaluated a poor-quality essay and provided feedback to the essay writer. Experimentally induced compassion felt towards the essay writer (Study 1) and individual differences in trait compassion (Study 2) were positively associated with inflated feedback to the essay writer. In both of these studies, the relationship between compassion and prosocial lying was partially mediated by an enhanced desire to prevent emotional harm. In Study 3, we found moderation such that experimentally induced compassion increased lies that resulted in financial gains for a charity, but not lies that produced financial gains for the self. This research illuminates the emotional underpinnings of the common yet morally complex behavior of prosocial lying, and builds on work highlighting the potentially harmful effects of compassion—an emotion typically seen as socially beneficial.

*Keywords:* Positive Emotion, Morality, Empathy, Prosocial Behavior, Deception

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When people are asked to report their most important moral value, the most frequent response is honesty (Graham, Meindl, Koleva, Iyer, & Johnson, 2015). Nevertheless, people report lying several times daily on average (DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996). Many of these lies are told with the intention of benefiting others in some way, thus earning the classification “prosocial lie” (Levine & Schweitzer, 2014; 2015).

Despite the benevolent intentions behind prosocial lies, however, it is often the case that when given the opportunity to tell a prosocial lie, both lying and honesty can have different prosocial—and antisocial—consequences. For example, imagine a professor is asked by an undergraduate advisee to review his application essays for a prestigious doctoral program. After reading the essays, the professor thinks it unlikely that the student would be accepted into the program. Knowing that the student cares deeply about his academic identity and that he has put several months’ effort into the materials, the professor believes the truth would be devastating to the student. At the same time, the professor understands that honest feedback will give the student an opportunity to revise the essays and significantly improve his chances at admission.

If the professor were to experience a rush of compassion for the student, how would it impact whether or not the professor gives the student honest feedback? One possibility is that compassion would lead the professor to consider the benefits of the honest feedback, and drive the professor to tell the student the hurtful, but beneficial truth. That is, compassion could promote a focus on the student’s career goals and help the professor see past the temporary emotional consequences of the feedback. Alternatively, compassion could instead focus the

professor on the negative emotional impact of the feedback, and lead the professor to tell a lie in the form of overly positive feedback.

In this paper, we explore, for the first time, the emotional basis of prosocial lying. Specifically, we examine how and why compassion impacts behavior when one has the opportunity to tell a prosocial lie. Determining how compassion influences prosocial lying is important for predicting the circumstances under which these lies might be told, as well as for developing an understanding of the counterintuitive and potentially detrimental effects of compassion on individuals, relationships, and organizations.

### **The Benefits and Limitations of Compassion**

Compassion is an emotion elicited by appraisals of need or undeserved suffering (Goetz, Keltner, & Simon-Tomas, 2010; Haidt, 2003; Lazarus, 1991).<sup>1</sup> Compassion is evoked by witnessing or learning about others' physical or emotional pain (Batson et al., 1997; Condon & DeSteno, 2011; Eisenberg et al., 1989; Stellar, Cohen, Oveis, & Keltner, 2014; Stellar, Feinberg, & Keltner, 2014; Stellar, Manzo, Kraus, & Keltner, 2012; Van Kleef et al., 2008) or victimization (Cameron & Payne, 2011; Valdesolo & DeSteno, 2011a), and by viewing depictions of suffering others such as homeless and malnourished people (Oveis et al., 2009; Oveis, Horberg, & Keltner, 2010). Philosophers and psychologists consider compassion to be the prototypical prosocial emotion, as it guides decisions about whom to help and how to help them (e.g., Cameron & Payne, 2012; Haidt, 2003; Nussbaum, 1996).

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<sup>1</sup> Others have labeled this emotion and related states as sympathy, empathy, or empathic concern (Batson, 1991; Batson & Shaw, 1991; Davis, 1983; Eisenberg, 1991; Eisenberg, 2002; Goetz et al., 2010; Lazarus, 1991; Nussbaum, 1996; Wispé, 1986; see Haidt, 2003 for a discussion of construct terminology).

Because compassion involves appraisals of suffering in others, it is no surprise that this emotion facilitates prosocial behaviors aimed at alleviating suffering and harm. For example, participants induced to experience compassion become more willing to receive painful electric shocks in place of other people (see Batson & Shaw, 1991 for a review). Those experiencing compassion will also help others even if they can escape the situation without doing so (Batson, Duncan, Ackerman, Buckley, & Birch, 1981). Non-verbal behaviors aimed to reduce suffering have been observed cross-culturally, including soothing touch and skin-to-skin contact (Hertenstein, Keltner, App, Bulleit, & Jaskolka, 2006). Compassion is also a motivator of generosity towards those who suffer (Saslow et al., 2013).

Not only does compassion facilitate prosocial behaviors that involve *preventing* suffering and harm, but it is also plays a role in behaviors that *promote* the welfare of others. When a person experiences compassion, their focus turns away from the goals and needs of the self and toward enhancing the welfare of others (Horberg, Oveis, & Keltner, 2011; Oveis et al., 2010; Valdesolo & DeSteno, 2011b). As such, research suggests that compassion facilitates behaviors intended to help others, even at a cost to oneself. For example, compassion promotes forgiveness (Condon & DeSteno, 2011; Rudolph, Roesch, Greitemeyer, & Weiner, 2004), increases volunteerism (Omoto, Malsch, & Barraza 2009), and facilitates cooperation (Singer & Steinbeis, 2009).

Despite the multitude of work highlighting compassion's central role in prosocial behavior, however, researchers have recently begun documenting the limitations of compassion, as well as conditions under which this emotion can actually have perverse effects. An underlying theme of this work is that compassion is associated with biases that can sometimes misguide our attention away from doing the "most good." This idea is well-illustrated by the story of Baby

Jessica, who enraptured media attention and brought in hundreds of thousands of dollars in charitable donations after falling down a well, while elsewhere in the world, humanitarian crises such as the Kurdish genocide (which resulted in hundreds of thousands of lives being lost) received little attention. Individuals experience more compassion towards identifiable victims than relatively greater numbers of victims described using statistics (Small & Loewenstein, 2003), and people downregulate their compassion when they encounter multiple victims in need because those needs appear overwhelming (Cameron & Payne, 2011). Compassion is also more easily and more often felt for those whose suffering is vivid (Loewenstein & Small, 2007), and in-group members, such as those who are closely related (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997), or those who share our ethnicity or nationality (Stürmer, Snyder, Kropp, & Siem, 2006). It has been argued that the biased nature of compassion is a contributing factor to neglect of the world's greatest atrocities, the rectification of which requires overcoming of these biases so that people may recognize and act where help is needed most (Bloom, 2014; Slovic, 2007).

### **Prosocial and Selfish Lying**

Prosocial lying is ethically ambiguous. On one hand, lying violates the principle of honesty, a widely held moral value (Graham et al., 2015). Yet, these lies differ in their intentions from *selfish lies*, or those which are told to benefit oneself, potentially at the expense of others (Levine & Schweitzer, 2014). Selfish lies, such as those told for personal monetary gain, to protect one's status or position, or to attain social approval, are commonly viewed as reprehensible (Buller & Burgoon, 1994; Lewis & Saarni, 1993). In contrast, prosocial lies are colored by people's good intentions, such as to prevent others from feeling hurt or embarrassed (DePaulo et al., 1996), or to benefit others financially (Erat & Gneezy, 2012).

It is important to note, however, that prosocial lies are benevolent in *intent*, but not necessarily in their ultimate consequences. That is, although those who tell prosocial lies have good intentions, these lies can have harmful effects on others. Providing overly positive feedback (such as in the professor-student example earlier) is one such context in which prosocial lies can ultimately backfire. Inflated feedback can harm performance (Ellis, Mendel, & Aloni-Zohar, 2009) and lead to avoidance of challenges (Brummelman, Thomaes, Orobio de Castro, Overbeek, & Bushman, 2014), which could have negative economic consequences for organizations. Conversely, research has documented clear benefits to receiving accurate performance feedback. Accurate feedback can foster motivation to achieve goals and improve performance (Hyland, 1988; Ilgen, Fisher & Taylor, 1979; Locke & Latham, 1990). Research in organizational behavior has demonstrated the importance of accurate feedback for workplace productivity (Hillman, Schwandt, & Bartz, 1990), as well for clarifying expectations and reducing employee uncertainty (Ashford & Cummings, 1983). Thus, while prosocial lies are intended to benefit others, they may ultimately have detrimental effects on individuals and organizations.

Because of the adverse consequences that can result from prosocial lies, scholars across several domains of psychology (social, developmental, organizational behavior) and behavioral economics have sought to better understand these lies through research. One clear finding is that prosocial lying is ubiquitous. Prosocial lying is socialized early in life; parents lie to their children to promote positive emotions (Heyman, Luu, & Lee, 2009), and children in turn understand and tell prosocial lies themselves (Broomfield, Robinson, & Robinson, 2002; Talwar et al., 2007). Adults also tell prosocial lies regularly, especially in close relationships (DePaulo & Kashy, 1998). Recent research has focused on responses to prosocial lying: Whereas selfish lies

generally lead to distrust of the liar, prosocial lies that provide clear economic benefits to the target of the lie (hereafter “target”) can increase trust and positive moral evaluations of the liar (Levine & Schweitzer, 2014; 2015). Yet, when the benefits of lying do not clearly outweigh those of honesty in the eyes of the target, prosocial lies can harm trust and moral judgments, and communicating benevolent intent may do little to mitigate these negative effects (Lupoli, Levine, & Greenberg, 2016). Other work has focused on predictors of prosocial lying: Research reveals that people are more likely to lie when others stand to gain (Gino, Ayal, & Ariely, 2013; Gino & Pierce, 2009; Wiltermuth, 2011), and prosocial lying is observed even when there is a cost to the self (Erat & Gneezy, 2012). Thus far, however, no work has examined what is likely a critical antecedent of prosocial lying: emotion, and in particular, the emotion of compassion.

### **Compassion and Prosocial Lying**

Considering that compassion facilitates prosocial behavior, it seems likely that compassion would play *some* role in prosocial lying. What complicates matters, however, is that prosocial lying may not necessarily be the most beneficial action to take when considering targets’ interests, because the alternative to prosocial lying might be helpful to them as well. When faced with the opportunity to tell a prosocial lie, two prosocial ethics are pitted against one another. Individuals must either lie in order to reduce harm or provide care to another, or tell the truth, which could also provide benefits for the target. Thus far, it is unclear how compassion influences behavior in moral dilemmas when different prosocial values are in conflict. In what direction might compassion influence prosocial lying, if any? Answering this question is critical to understanding compassion’s influence on moral behavior, and this knowledge could inform policy initiatives aimed at increasing compassion in society and in organizations (e.g., Rynes, Bartunek, Dutton, & Margolis, 2012).



On one hand, compassion could decrease prosocial lying (and thus produce increased honesty) for two reasons. First, when faced with the opportunity to tell a prosocial lie, those experiencing compassion might consider what is in the overall best interest of the target. As noted earlier, compassion has been shown to result in both harm-preventing behaviors, as well as behaviors that promote the wellbeing of others in ways unrelated to suffering. While no work has addressed how compassion influences behavior when harm prevention and non-harm-related welfare promotion are in conflict, one possibility is that compassion leads individuals to do whatever provides the greatest magnitude of benefits for others. Thus, if the benefits of a hurtful truth clearly outweigh the temporary pain inflicted by the truth, compassion could then lead an individual to be more honest. Recall the aforementioned example of the professor asked to evaluate the student's essays: Although hearing that that he is unlikely to be accepted would be painful, this would be a small price if honest criticism helps him improve his application and ultimately gain admission. A compassionate individual might then be honest with the student about the flaws in his application.

Second, because lies have damaging effects on relationships, compassion may make individuals averse to telling lies in general. Deception can harm relationships by decreasing liking (Tyler, Feldman, & Reichert, 2006), intimacy (DePaulo et al., 1996), and trust (Schweitzer, Hershey, & Bradlow, 2006), and can also provoke revenge (Boles, Croson, & Murnighan, 2000). Additionally, in close relationships, such as friendships and romantic relationships, there are strong expectations of honesty (Stiff, Kim, & Ramesh, 1992). The discovery that one has been lied to can have negative emotional effects on the lie recipient, and damage or destroy the relationship (Haselton, Buss, Oubaid, & Angleitner, 2005; McCornack & Levine, 1990). It is possible that a lifetime of exposure to the harmful consequences of lying in

general could have spillover effects towards perceptions of prosocial lying. Thus, one experiencing compassion might opt to uphold the social contract of honesty, in part because of the detrimental effects that lying could have on one's relationships.

On the other hand, because compassion involves a heightened sensitivity to the suffering of others, this emotion could increase prosocial lying by focusing individuals on the harm inherent in a painful truth. That is, if lying is seen as a means to prevent or decrease suffering, then compassion might increase this type of lying. Consistent with this analysis is aforementioned work showing that compassion's effects on prosocial behavior are not necessarily calibrated toward promoting the *most* welfare-enhancing behavior, but instead toward promoting the welfare of others whose suffering is vivid (Loewenstein & Small, 2007). The circumstances under which lies are told lend well to compassion's biases: Lies are often told face-to-face, whereby the target is identifiable (e.g., Small & Loewenstein, 2003), and the pain that might result from the truth would be immediately apparent (i.e., vivid) to the potential deceiver. If the perceived harm that honesty might cause to the target is to be experienced in the here-and-now, compassion could act as a catalyst for prosocial lying in order to avoid this harm.

### **The Present Studies**

In three studies, we provide the first tests of the influence of compassion on prosocial lying. We approach compassion at three levels (Han, Lerner, & Keltner, 2007; Rosenberg, 1998): as an experimentally-induced state experienced toward the potential target of a prosocial lie, or *integral compassion*; as an enduring emotional *trait*; and as an experimentally-induced state elicited by stimuli unrelated to the potential target of a prosocial lie, or *incidental compassion*. We also test whether a particular cognitive mechanism concerning the welfare of others—the importance placed on preventing emotional harm—might underlie the relationship between

compassion and prosocial lying. Studies 1 and 2 examine prosocial lies that prevent emotional harm; Study 3 examines lies that promote the gains of others, while also investigating compassion's influence on selfish lies. All three studies measure real behavior.

### **Study 1:**

#### **Integral Compassion Increases Prosocial Lies That Prevent Emotional Harm**

Study 1 tested whether experimentally-induced compassion (versus neutral feelings) would influence prosocial lying. Prosocial lying was operationalized as the inflation of feedback to the writer of a poorly written essay, as compared to participants' previous, private evaluations of that same essay. This behavioral paradigm simulates a regular occurrence in schools and workplaces in which individuals first evaluate an underperforming individual and then must decide whether to give accurate feedback.

Study 1 employed an integral manipulation of compassion; that is, the person who elicited compassion in the participants was also the potential target of the prosocial lie. This type of manipulation allowed us to examine compassion's relation to prosocial lying as it often occurs in the real world. We measured other emotions to test whether the effect of compassion on prosocial lying (if any) was driven by compassion specifically, rather than by other discrete emotions or positive or negative affect. We also measured social perceptions of the essay writer that could potentially account for the effect of compassion on prosocial lying. Lastly, we tested a potential cognitive mechanism of compassion's influence on prosocial lying—an enhanced importance placed on preventing harm to others, which is a primary appraisal of compassion (Goetz et al., 2010)—as well as potential alternative mechanisms.

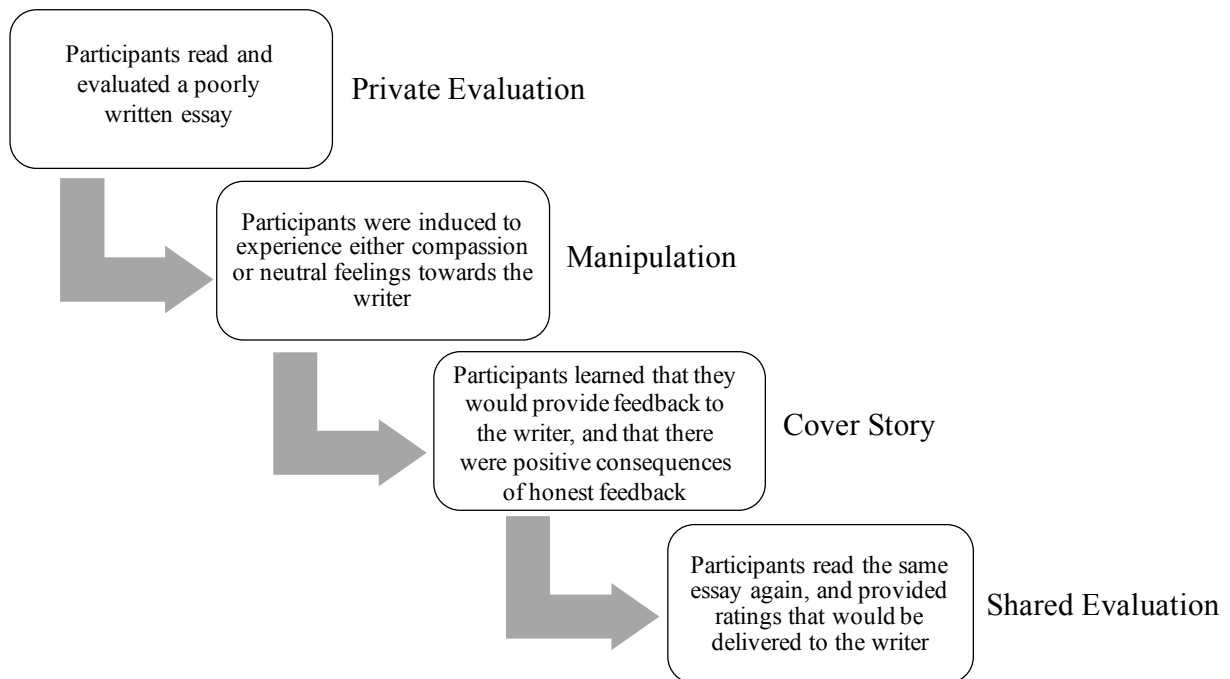
### **Methods**

**Participants, design, and procedure.** Participants were 434 undergraduates from a large U.S. public university. Participants were randomly assigned to the compassion or neutral condition in a two-cell between-subjects design. Twenty-four participants were excluded for failing an attention check, and nine participants were excluded for reporting suspicion that they were not actually paired with another individual. This left a final sample of 401 participants ( $M_{age} = 21.3$ , 54.6% female), which met our a priori target sample size of 400 (200 per cell). A sample of this size would give us 81% power to detect a small-to-medium effect size of  $d = .28$  (Cohen, 1992) at  $\alpha = .05$ . Though we did not have sufficient precedent to make a precise estimate of effect size, we used  $d = .28$  in our power calculation as a lower bound of an effect size that would justify further study.

Participants completed the prosocial lying task (which included the compassion versus neutral manipulation), provided reports on their experienced emotions, and answered questions to assess potential mechanisms. Finally, we measured social perceptions of the writer to rule out potential confounding variables.

***Prosocial lying task.*** We adapted a behavioral measure of prosocial lying (Jampol & Zayas, 2016) in which participants first provided private ratings of an essay written by another individual. They then read about a recent experience in this individual's life, which served as our manipulation of compassion or neutral feelings toward the essay writer. Next, they received a cover story explaining that they would have the opportunity to give the writer feedback, and that this feedback could help the writer improve the essay and thus improve his/her chance to earn a prize (see details below in section entitled, "Assessment of prosocial lying"). Finally, participants evaluated the essay a second time on the same dimensions, except this time with the

knowledge that their evaluations would be shared with the essay writer. This procedure is graphically depicted in Figure 1.



*Figure 1.* Overview of prosocial lying task in Study 1.

As in Jampol and Zayas (2016), participants were first told that they would be paired with a student from another university who had written an essay about why he/she should be admitted to a graduate program. Participants were told that the purpose of the task was to let the researcher know (1) the quality of the student’s writing, and (2) whether the writing sample should be provided to students who are applying to graduate school as an example of good “off the cuff” writing—that is, writing not prepared in advance. To bolster the believability of the cover story and to increase the salience of an identifiable target, participants were provided with the student’s initials (“CG”) and a short introductory message from this ostensible partner. Participants were also provided with a description of criteria they would use to evaluate specific

essay attributes (i.e., focus, logic, organization, support, mechanics), and were given an example of a high quality essay. Participants then read and rated the essay, which was pretested to be of relatively low quality ( $N = 36$ , sample drawn from same student population;  $M = 44.56$ ,  $SD = 20.69$ ;  $0 = worst$ ,  $100 = best$ ).

***Private essay evaluations.*** Participants first provided their private ratings of the essay. Participants rated *quality* by indicating how the essay ranks “in general, compared to the best writing from someone in your peer-group/students at your university” ( $0 = worst$ ,  $100 = best$ ). Participants’ ratings of the focus, logic, organization, support, and mechanics of the essay—five attributes that are important in good essay writing, which were defined for participants—were averaged to form an *attributes* score ( $\alpha = .62$ ;  $1 = worst$ ,  $5 = best$ ). Finally, participants provided their *recommendation* for the essay (“How likely would you be to recommend this essay as a good example of off the cuff writing for students preparing for graduate admissions?”;  $1 = very unlikely$ ,  $7 = very likely$ ). At no point were participants told that the writer would learn their identity or view their evaluation; thus, they were free to give any ratings they wished without social repercussions.

***Manipulation of compassion versus neutral feelings toward the essay writer.*** After providing their initial private essay evaluations, participants received the manipulation of compassion or neutral feelings toward the writer. This manipulation was implemented in the form of a message ostensibly written by the essay writer about an event that recently occurred in his/her life. To reduce the potential for demand effects that could arise from identification of the purpose of this message, we told participants that they would receive this message because “we want to give you the chance to know him/her [the writer] better,” and that “he/she [the writer] was not given any specific instructions about what type of event he/she should write about.”

Participants randomly assigned to the compassion condition then read a short paragraph adapted from Stellar, Feinberg, and Keltner (2014) that depicted the experience of a family member's death (with intentional spelling and punctuation errors to match the writing quality of the essay):

*I dont know if this will be interesting to you but the only thing I can think of is two days ago my cousin passed away. It was really hard for me since we were so close. I spent a lot of time with her when I was younger we were best friends as kids. After I found out I just came home and sat in my room for a while by myself, my whole body was tired and I just felt so drained. I haven't talked to anyone about it really... I just couldn't believe it I, I wish I had gotten a chance to talk to her one last time. She was a really great person and she was a really big part of my life.*

Participants in the neutral condition read a paragraph about an ordinary grocery shopping experience.

**Assessment of prosocial lying.** After receiving the emotion manipulation, participants were asked to provide feedback to the writer about the quality of his/her essay. To (a) make the benefits of honesty salient, and (b) reduce demand effects that might arise from the perception that participants were expected to inflate their shared evaluations, we presented the following explanation to participants before they provided their feedback:

*Your feedback is important. Each writer in this project must decide whether they would like to rewrite their essay before submitting it into a contest in which they can win a small prize that we will hold at the end of the semester. So, the information that you provide will help the writer improve his/her essay.*

Participants again rated the *quality* and *attributes* of the essay and provided their *recommendation* for the essay on the same scales described above, but this time they received an on-screen reminder that their essay ratings would be shared with the essay writer. Private ratings on each evaluation criterion (essay *quality*, *attributes*, and *recommendation*) were subtracted from the shared ratings, and these difference scores served as the measures of prosocial lying. These three measures of prosocial lying were also standardized and averaged to form our focal measure of *overall prosocial lying* ( $\alpha = .79$ ). For all measures, the higher the difference score, the more participants inflated their ratings when giving feedback to the writer.

***Experienced emotions.*** After providing their shared ratings, participants were asked to think back to the message they read about the recent experience in the writer's life (the emotion manipulation), and to indicate the extent to which they experienced several emotions while reading this message (1 = *very slightly or not at all*, 5 = *extremely*). Twenty of the items assessed were taken from the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), and three additional items were used to assess compassion ("compassionate," "sympathetic," "moved"; Oveis et al., 2010). We calculated composite scores for positive affect (10 items: interested, excited, strong, enthusiastic, proud, alert, inspired, determined, attentive, active;  $\alpha = .86$ ), negative affect (10 items: distressed, upset, guilty, scared, hostile, irritable, ashamed, nervous, jittery, afraid;  $\alpha = .79$ ), and compassion (3 items,  $\alpha = .89$ ). The order of the emotion items was randomized for each participant.

***Mechanism: Harm prevention.*** A primary appraisal associated with compassion is a heightened focus on the suffering of others. Thus, we hypothesized that compassion's influence on prosocial lying would be mediated by an enhanced desire to prevent emotional harm. To assess this mechanism, participants responded to the following prompt: "When you were giving



feedback to the student with whom you were paired during the second round of grading, how important was it for you to prevent any emotional harm or negative feelings that might have occurred as a result of your feedback?" (1 = *not at all important*, 7 = *extremely important*).

We also assessed alternative potential mechanisms by asking participants to indicate on the same scale how important it was to "give honest feedback," and how important it was to "give feedback that would help the student improve his/her writing." All mechanism questions were presented in randomized order.

***Social perceptions.*** Next, we measured several perceptions of the writer. Participants were first asked, "How optimistic would you be about CG's [the writer's] success as a future graduate student?" (1 = *not at all*, 7 = *very*). They then received a series of questions on the same 1 to 7 scale in the following format: "How \_\_\_ is CG?" Participants rated the writer on the following dimensions: smart, dominant, warm, agreeable, competent, confident, open, likeable, trusting, trustworthy."

On the next survey page, we asked participants to indicate their beliefs about the gender of the student with whom they were paired (1 = *the student was very likely to be female*, 2 = *the student was probably female*, 3 = *the student could have been male or female*, 4 = *the student was probably male*, 5 = *the student was very likely to be male*). Lastly, participants responded to several exploratory individual differences scales, which are reported in the Supplemental Material and do not moderate the results.

## **Results**

**Manipulation check.** The compassion induction was successful: Participants in the compassion condition reported feeling more compassion ( $M = 3.15$ ,  $SD = 1.02$ ) than did those in the neutral condition ( $M = 1.46$ ,  $SD = 0.64$ ),  $t(399) = 19.93$ ,  $p < .001$ ,  $d = 1.99$ .

**Overall levels of prosocial lying across conditions.** The prosocial lying task successfully generated prosocial lying. The mean difference score for each evaluation criterion was positive, indicating that participants provided more positive evaluations when the writer would view those evaluations, compared to their private evaluations ( $M_{quality} = +2.94$ ,  $SD_{quality} = 9.40$ ;  $M_{attributes} = +0.10$ ,  $SD_{attributes} = 0.41$ ;  $M_{recommendation} = +0.33$ ,  $SD_{recommendation} = 0.73$ ). Furthermore, t-tests revealed that each of these difference scores significantly differed from zero ( $ps < .001$ ), thus enabling us to reject the null hypothesis that no prosocial lying occurred.

**Compassion produced increased levels of prosocial lying.** Consistent with our hypothesis, the compassion condition ( $M_{compassion} = +0.16$ ,  $SD = 0.85$ ) produced increased overall prosocial lying compared to the neutral condition ( $M_{neutral} = -0.15$ ,  $SD = 0.80$ ),  $t(399) = 3.74$ ,  $p < .001$ ,  $d = .37$ .<sup>2</sup> Further, those in the compassion condition exhibited greater levels of prosocial lying in their ratings of quality ( $M_{compassion} = +4.75$ ,  $SD = 9.14$  vs.  $M_{neutral} = +1.20$ ,  $SD = 9.33$ ;  $t(399) = 3.85$ ,  $p < .001$ ,  $d = .38$ ), attributes ( $M_{compassion} = +0.17$ ,  $SD = 0.37$  vs.  $M_{neutral} = +0.04$ ,  $SD = 0.44$ ;  $t(399) = 2.99$ ,  $p < .01$ ,  $d = .30$ ), and recommendation ( $M_{compassion} = +0.42$  vs.  $SD = 0.80$ ;  $M_{neutral} = +0.24$ ,  $SD = 0.65$ ;  $t(399) = 2.54$ ,  $p = .01$ ,  $d = .25$ ; see Figure 2).

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<sup>2</sup> Note that overall prosocial lying scores are standardized.

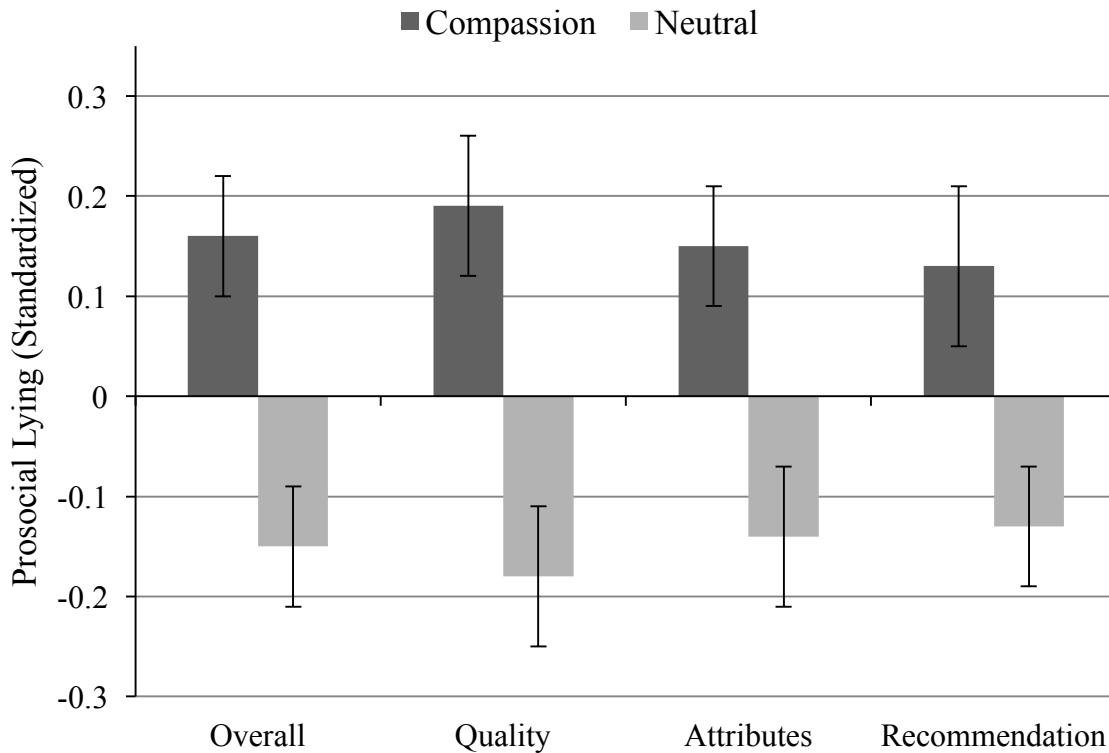


Figure 2. The effect of integral compassion on overall prosocial lying and prosocial lying on each of the evaluation criteria in Study 1. All scores are standardized. Error bars signify standard errors.

**Importance placed on harm prevention partially mediated the effect of compassion on prosocial lying.** After establishing that the compassion induction significantly increased prosocial lying, we assessed whether compassion also increased the importance placed on preventing emotional harm or negative feelings. Indeed, those in the compassion condition reported a significantly greater importance placed on preventing emotional harm than those in the neutral condition,  $\beta = .39, p = .02$ . The importance placed on emotional harm also significantly predicted overall prosocial lying,  $\beta = .06, p = .02$ . We therefore examined the relationship between this potential mediator and overall prosocial lying. Using the bootstrapping

method, a mediation model with 20,000 bootstrap resamples confirmed that the importance placed on preventing emotional harm was a partial mediator of the relationship between compassion and overall prosocial lying,  $\beta = .02$ , 95% CI [.001, .05]. In contrast, neither the importance placed on giving honest feedback nor the importance given to helping the student improve his/her writing was predicted by the compassion induction ( $ps > .25$ ), thus ruling these items out as mediators of the relationship between compassion and prosocial lying.

**Experienced compassion mediated the effect of the compassion manipulation on prosocial lying.** In order to establish that the observed effects on prosocial lying were driven by the experience of compassion and not some other difference between the two experimental conditions, we first tested whether prosocial lying was predicted by experienced compassion as measured by the manipulation check. Overall prosocial lying was significantly predicted by experienced compassion ( $\beta = .20$ ,  $p < .001$ ). This effect held for both participants in the compassion condition ( $p < .001$ ), as well as those in the neutral condition ( $p = .01$ ). We also tested whether the data were consistent with a mediation model in which the experience of compassion mediates the influence of the compassion (versus neutral) condition on prosocial lying. The data were indeed consistent with such a model: A mediation model with 20,000 bootstrap resamples and bias-corrected confidence estimates revealed a significant indirect effect of the manipulation through experienced compassion on prosocial lying,  $\beta = .36$ , 95% CI [0.18, 0.55].

In addition, we tested multiple mediation models containing experienced compassion and other items of the PANAS scale. A model containing experienced compassion, positive affect, and negative affect revealed a significant indirect effect of compassion,  $\beta = .35$ , 95 % CI [.13, .56], while confidence intervals around the indirect effects of positive and negative affect both

contained zero. We also ran a model containing experienced compassion and the items that are conceptually relevant to compassion experiences (inspired, distressed, upset, and guilty). There was again a significant indirect effect of experienced compassion,  $\beta = .34$ , 95% CI [.14, .55], but 95% confidence intervals for the items “inspired,” “distressed,” “upset,” and “guilty” all contained zero. These analyses serve as a test of the specificity of the effect, indicating that increases in prosocial lying stemmed from participants’ experience of compassion, rather than other emotions.

**Controlling for positive affect, negative affect, and specific emotions did not account for the observed effects.** The effect of the compassion manipulation on overall prosocial lying remained significant in a model controlling for positive and negative affect ( $p < .01$ ), as well in a model controlling for every specific emotion item assessed in the PANAS ( $p < .001$ ).

**Controlling for social perceptions of the writer did not account for the observed effects.** Finally, we looked for differences in social perceptions resulting from the compassion and neutral manipulation to determine if they could explain the effects on prosocial lying. Overall, those in the compassion condition ( $M = 3.37$ ,  $SD = 1.41$ ) reported being more optimistic about the writer’s future as a graduate student than those in the neutral condition ( $M = 2.94$ ,  $SD = 1.34$ ),  $t(399) = 3.24$ ,  $p < .01$ . The writer in the compassion condition was also perceived as significantly more warm, agreeable, competent, open, likeable, trusting, trustworthy, and more likely to be female compared to the neutral condition ( $ps < .05$ ). There were no significant differences between the two conditions in perceptions that the writer is smart, dominant, or confident ( $ps > .20$ ). Importantly, the effect of the compassion manipulation on prosocial lying remained significant in a model controlling for each of these social perceptions significantly predicted by the compassion manipulation ( $p < .001$ ). Furthermore, a multiple mediation model

with these perceptions entered as mediators revealed no significant indirect effects (all confidence intervals contained zero).

## **Discussion**

Study 1 provided the first demonstration that compassion increases prosocial lying. By examining peer feedback, the experimental design in this study simulated a common context in which prosocial is likely to occur. Moreover, we identified a mechanism: The effect of compassion on prosocial lying was partially mediated by the importance placed on preventing emotional harm that could occur as a result of their feedback. Other emotions and social perceptions of the target did not drive the effect.

### **Study 2:**

#### **Trait Compassion Predicts Increased Prosocial Lying To Prevent Emotional Harm**

Study 2 tested whether individual differences in trait compassion predict prosocial lying using the same feedback paradigm implemented in Study 1. Trait emotions are enduring aspects of a person's personality that show stability over time and reflect elevated baseline levels of an emotion, increased tendencies to experience an emotion, and/or a decreased threshold for triggering the experience of an emotion (Rosenberg, 1998; Shiota, Keltner, & John, 2006). Investigating trait compassion thus offers another important glimpse into how prosocial lying effects are likely to emerge in the real world.

## **Methods**

**Participants, design, and procedure.** Participants were 145 Amazon Mechanical Turk (Mturk) workers located in the United States. Four participants were excluded for failing an attention check, and two participants were excluded for reporting disbelief that they were paired with another individual. This left a final sample of 139 participants ( $M_{age} = 35.5$ , 60.5% female).

Before collecting data, we had a target of 150 participants, which would give us an 80% power to detect a small-to-medium effect size of  $r = .22$  at  $\alpha = .05$ . We used this effect size as a benchmark because we obtained comparable effect sizes in Study 1.

No variables were manipulated in Study 2, thus eliminating the potential for demand characteristics that could arise from identification of the experimental manipulation. All participants completed the assessment of trait compassion, a filler task, the prosocial lying task, and the mechanism measures, as detailed below.

***Trait compassion.*** Trait compassion was measured using two validated scales administered in counterbalanced order: the Empathic Concern subscale of the Interpersonal Reactivity Index (IRI-EC; Davis, 1983) and the compassion subscale of the Dispositional Positive Emotion Scales (DPES; Shiota et al., 2006). For the 7-item IRI-EC, participants indicated their agreement or disagreement (1 = *strongly disagree*, 5 = *strongly agree*) with items such as, “Other people’s misfortunes usually do not disturb me a great deal,” (reverse-scored) and “I often have tender, concerned feelings for people less fortunate than me.” Internal reliability was high ( $\alpha = .88$ ). For the 5-item Compassion DPES, participants rated their agreement or disagreement (1 = *disagree strongly*, 7 = *agree strongly*) with items such as “Taking care of others gives me a warm feeling inside,” and “I am a very compassionate person.” Internal reliability was also high for this scale ( $\alpha = .88$ ). As expected, the two scales were highly correlated ( $r(137) = .86$ ), so we standardized and averaged them to form the composite measure of trait compassion ( $\alpha = .92$ ).

***Filler task and demographics.*** In order to disguise our hypotheses and preclude the desire for consistent responding with the trait compassion measures, it was important to temporally separate the compassion measures from the focal dependent variables. Thus, we

provided participants with filler measures after assessing trait compassion. Here, participants answered demographic questions, then engaged in a task in which they formed neutral sentences from a series of scrambled words.

***Prosocial lying task.*** We used the prosocial lying task from Study 1, with the cover story adapted for Mturk participants. Specifically, participants were told that we were interested in assessing Mturk workers' (those who participate in tasks on Mturk) perspectives on Mturk workers' writing. Participants were informed that they would be paired with another Mturk worker, and that this worker had been asked to write a short essay about the benefits of Mturk for both workers and requesters (those who post tasks on Mturk). As in Study 1, participants were informed that the purpose of the task was to let the researcher know the quality of the writing, and also to determine whether the essay should be included in an introductory manual for people potentially interested in using Mturk.

Similarly to Study 1, participants were shown the Mturk worker's initials and short introductory message. They then learned about the same criteria for evaluating specific essay attributes that were used in Study 1 (i.e., focus, logic, organization, support, mechanics). Next, participants provided private evaluations of the essay, which was rated in a pretest by Jampol and Zayas (2016) to be of low quality ( $M = 22.20$ ,  $SD = 19.20$  on a 0 [*worst*] to 100 [*best*] scale). The evaluation measures implemented here were also similar to those used in Study 1, with minor changes. In Study 2, all measures were assessed on 0 to 100 scales. Participants rated the *quality* of the essay (0 = *worst*, 100 = *best*), the five essay *attributes* (0 = *worst*, 100 = *best*;  $\alpha = .74$ ), and the degree to which they would recommend the essay to be published in an introductory manual for online research (*recommendation*; 0 = *very unlikely*, 100 = *very likely*). The essay was provided on the screen while participants made their ratings.



After giving their initial, private evaluations, participants were asked to provide feedback to the writer about the quality of his/her essay. Before they gave their feedback, we presented participants with a similar explanation from Study 1 for why they would provide the feedback—that is, that their feedback was important because it could help the writer improve his/her essay before submitting it “into a future HIT [survey on Mturk] in which they can earn a bonus [extra money].” As in Study 1, we presented this information in order to make the benefits of honesty salient and to reduce potential demand effects.

Participants then evaluated the essay on the same three measures as before, with the addition of an on-screen reminder that these ratings would be shared with the essay writer. The difference between the shared ratings and the private ratings on each evaluation criterion (essay quality, attributes, and recommendation) again served as our measures of prosocial lying. These three measures of prosocial lying were averaged to form a composite measure of overall prosocial lying ( $\alpha = .62$ ).

***Mechanism: Harm prevention.*** Following the prosocial lying task, we asked participants the same question from Study 1 to assess the hypothesized mechanism—an enhanced focus on harm prevention—except that the writer was now referred to as a “worker” instead of a “student.” Specifically, participants were asked, “When you were giving feedback to the worker with whom you were paired during the second round of grading, how important was it for you to prevent any emotional harm or negative feelings that might have occurred as a result of your feedback?” (1 = *not at all important*, 7 = *extremely important*). They were also asked the same two questions from Study 1 to assess two alternative mechanisms: the importance placed on giving honest feedback, and on giving feedback that would help the worker improve his/her writing (1 = *not at all important*, 7 = *extremely important*).

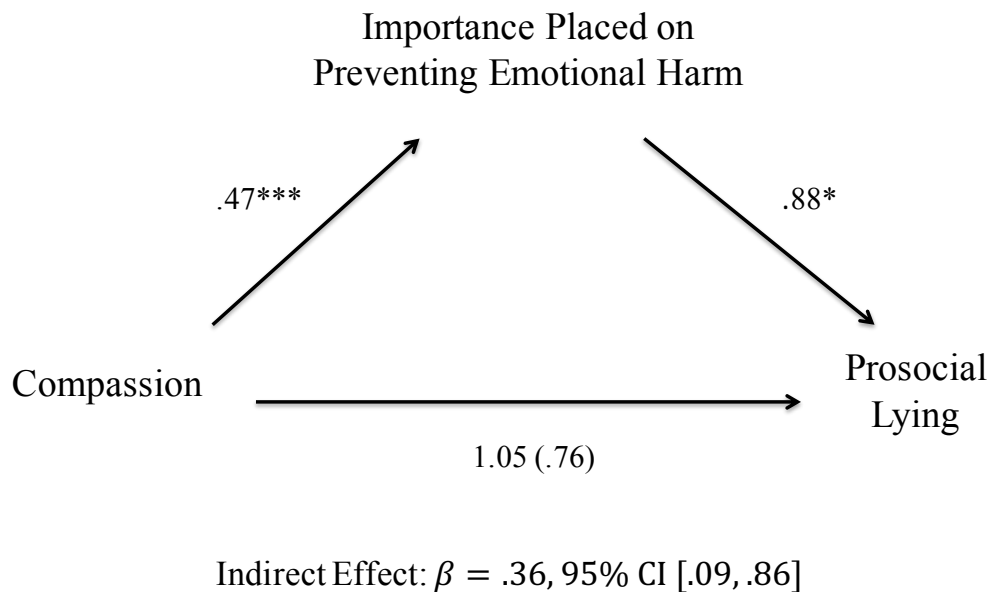
## Results

**Overall levels of prosocial lying.** Once again, the prosocial lying task resulted in prosocial lying. Positive difference scores for overall prosocial lying as well as each evaluation criterion indicated that participants inflated their ratings when they would be shared with the writer, compared to their private evaluations ( $M_{overall} = +3.51$ ,  $SD_{overall} = 7.55$ ;  $M_{quality} = +3.25$ ,  $SD_{quality} = 10.84$ ;  $M_{attributes} = +1.08$ ,  $SD_{attributes} = 7.87$ ;  $M_{recommendation} = +6.19$ ,  $SD_{recommendation} = 11.06$ ). Additionally, t-tests revealed that difference scores for quality and recommendation measures significantly differed from zero ( $ps < .001$ ), though difference scores for the attributes measure did not differ significantly from zero ( $p = .11$ ).

**Trait compassion predicts increased prosocial lying.** To test our main hypothesis, we first examined correlations between trait compassion and overall prosocial lying. Because the distributions of trait compassion scores were skewed (most participants rated themselves as relatively high in compassion), we conducted non-parametric Spearman rank-order correlations. Consistent with our predictions, trait compassion was significantly correlated with overall prosocial lying,  $\rho(137) = .17$ ,  $p = .04$ . We then examined how prosocial lying correlated with the three evaluation criteria that comprised the composite measure. These analyses revealed a significant positive correlation between compassion and prosocial lying about essay quality,  $\rho(137) = .18$ ,  $p = .03$ , and recommendation,  $\rho(137) = .21$ ,  $p = .01$ . The relationship between trait compassion and prosocial lying about the essay attributes was not significant ( $p > .25$ ).

**Importance placed on harm prevention partially mediated the relationship between trait compassion and prosocial lying.** The relationship between compassion and our hypothesized mediator—the importance placed on preventing emotional harm or negative feelings—was significant,  $\rho(137) = .28$ ,  $p < .01$ . The relationship between importance placed on

harm prevention and overall prosocial lying was also significant,  $\rho(137) = .23, p < .01$ . As such, we tested whether the importance placed on preventing emotional harm mediated the relationship between trait compassion and prosocial lying. Consistent with Study 1, a mediation model with 20,000 bootstrap resamples indicated that the desire to prevent harm was a partial mediator of this relationship,  $\beta = .36, 95\% \text{ CI } [.09, .86]$  (See Figure 3).



*Figure 3.* The relationship between compassion and prosocial lying as mediated by the importance placed on preventing emotional harm. Regression coefficients are unstandardized. Coefficient in parentheses represents the relationship between compassion and prosocial lying controlling for importance placed on preventing emotional harm. \*  $p < .05$ , \*\*\*  $p < .001$ .

Unlike in Study 1, however, compassion also predicted the importance placed on helping the worker improve his/her writing,  $\rho(137) = .25, p < .01$ , and the importance placed on giving honest feedback,  $\rho(137) = .20, p = .02$ . Prosocial lying was significantly predicted by the desire to provide honest feedback,  $\rho(137) = -.30, p < .001$ , and marginally predicted by the desire help the worker improve,  $\rho(137) = -.15, p = .07$ . Therefore, we ran a multiple mediation model examining all three of these potential mediators simultaneously. There was again a significant indirect effect of the importance placed on harm prevention,  $\beta = .27, 95\% \text{ CI } [.04, .73]$ . However, confidence intervals for the indirect effects of the importance placed on helping the writer improve and on being honest both contained zero, thus ruling these out as mediators of the relationship between trait compassion and prosocial lying.

## Discussion

In Study 2, trait compassion predicted increased prosocial lying. While this study implemented a correlational design, the results are consistent with those of Study 1, thus offering more evidence for the positive relationship between compassion and prosocial lying. Further supporting this evidence is the identification of the same underlying mechanism in Studies 1 and 2. In both of these studies, the desire to prevent emotional harm partially mediated the relationship between trait compassion and prosocial lying, rather than alternative mechanisms.

### Study 3:

#### **Compassion Increases Prosocial Lies That Promote the Gains of Others But Not the Self**

Whereas Studies 1 and 2 examined how compassion influences and relates to lies that *prevent* harm to others, Study 3 instead examines lies that *promote* positive outcomes for others. Specifically, Study 3 investigated whether experimentally-induced compassion would increase lies that procure financial gains of others—in this case, a charity. By examining prosocial lying

in a different context, Study 3 helps to assess the external validity of the effects seen in Studies 1 and 2. Moreover, in this study, we examined a third form of compassion by testing the effect of incidental state compassion on prosocial lying. That is, we manipulated compassion that was unrelated to the subsequent target of a prosocial lie. Testing the effects of incidental compassion on prosocial lying offers another key glimpse into how prosocial lying might unfold in the real world, as emotions can have spillover effects on decision-making in a variety of domains (e.g., Han et al., 2007). Lastly, we tested discriminant validity by investigating both prosocial and selfish lies, predicting moderation such that compassion would increase prosocial lies, but either decrease or have no effect on selfish lies.

## Methods

**Participants, design, and procedure.** Participants were 455 undergraduates from a large U.S. public university. Participants were randomly assigned to one of four conditions in a 2 (Emotion: compassion vs. neutral) x 2 (Lie Type: prosocial vs. selfish) between-subjects design. Ten participants were excluded due to a computer malfunction, three were excluded for being familiar with the lying task, six were excluded for guessing the hypothesis of the study, and four were excluded for displaying consistent responding that demonstrated a lack of understanding or concern for the task (by giving the payoff-minimizing response for the first 100 trials of the task). This left a final sample of 432 ( $M_{\text{age}} = 21.3$ , 49.2% female). Before collecting data, we had a target sample size of 460, or 115 per cell. This would give us an 80% power to detect a small-to-medium effect size of  $d = .37$  at  $\alpha = .05$ . We used this effect size as a benchmark because it was just below the effect size for the effect of compassion on prosocial lying observed in Study 1. All participants received course credit in exchange for participation; additional incentive

payments were made to a random selection of 10% of participants according their responses in the lying task (it was possible to gain up to \$10 in incentive payments for the self or for charity).

To obscure the study's purpose, participants were first told that they would be participating in a study about "how personality and visual stimuli influence memory." To bolster the cover story about the memory task, participants were told, "For this study, we are investigating how different visual stimuli affect memory. You will view a series of photos and a short movie. You will later be asked to recall aspects of the photos and movie, so please pay close attention." Next, participants filled out the Big Five Personality Inventory (BFI; John, Donahue, & Kentle, 1991), which assessed control variables. Then, participants received the compassion or neutral emotion induction, completed the lying task (where lies benefited the self or others), and finally reported on their experienced emotions.

***Big Five Personality Inventory (control variables).*** Participants completed the 44-item BFI on 1 (*strongly disagree*) to 5 (*strongly agree*) scales. We measured agreeableness as a control variable because of its potential relationship with decisions to lie prosocially, and because agreeableness, along with extraversion, tends to covary with positive emotionality (John & Srivastava, 1999). Neuroticism was measured as a control variable because of its empirical links with negative emotionality. We additionally included conscientiousness and openness to experience as control variables because they make up the other two major dimensions of personality.

***Emotion manipulation – compassion vs. neutral.*** Next, participants received the emotion manipulation. Those in the compassion condition viewed a validated 15-slide compassion induction (photographs depicted helplessness and vulnerability; Oveis et al., 2010) followed immediately by a validated 46-second film induction of compassion (about child

malnutrition and starvation; Côté et al., 2011). Importantly, the slides and video selected were not connected to the target organization of the prosocial lying task, nor was it plausible based on photo/video content or procedure that participants would later believe that they were benefiting the individuals depicted in the compassion induction.

Participants in the neutral condition viewed 15 neutral slides from the International Affective Picture System (IAPS; Lang, Bradley, & Cuthbert, 1999) immediately followed by a 46-second clip from the film *All the President's Men* depicting two men talking in a courtroom—a clip that past research has shown to elicit a neutral state (Hewig et al., 2005). All stimuli used in the manipulation can be found in the Supplemental Material.

***Lying task – prosocial lies vs. selfish lies.*** Immediately after the emotion induction, participants engaged in a lying task adapted from Gino, Norton, and Ariely (2010). For this task, participants viewed a series of arrays of dots dispersed within a square. Each square had a diagonal line cutting it in half, such that some dots were displayed to the right of the diagonal, and some dots to the left of the diagonal. After a 1-second exposure to each trial, participants were asked report whether there were more dots to the left or the right of the diagonal by pressing one of two keys.

Participants in the selfish lie condition were told that they would be paid 0.5 cents each time they reported that there were more dots on the left, and 5 cents for each time they reported that there were more dots on the right “because most people can easily identify the number of dots on the left side.” That is, they were incentivized to say that there were more dots on the right regardless of whether or not this was true.

In the prosocial lie condition, participants received the same information, but were told that the money earned based on their responses would be donated to a real charity—the Against

Malaria Foundation. Participants in this condition were also given a short paragraph about the nature of the charity, which provides insecticide-treated mosquito nets for the prevention of malaria (see Supplemental Material for full description provided to participants). All money earned by participants in the prosocial lie condition was actually donated to the Against Malaria Foundation.

Following Gino et al. (2010), all participants first performed 15 practice trials. After the practice phase, there were 200 trials divided into two blocks with 100 trials each. Each of the two blocks contained 34 trials in which there were clearly more dots on the left (a right-to-left ratio of less than  $2/3$ ), 50 trials in which it was ambiguous whether there were more dots on the left or the right (a right-to-left ratio greater than or equal to  $2/3$  and less than or equal to  $3/2$ ), and 16 trials in which there were clearly more dots on the right (the ratio of the number of dots on the right to the number of dots on the left was greater than  $3/2$ ). As in Gino et al. (2010), *clearly dishonest* responses were defined as “more on the right” responses—the response that yielded the higher payoff—when there were clearly more dots on the left. *Ambiguously dishonest* responses were defined as “more on the right” responses when it was ambiguous whether there were more dots on the right or left. *Honest* responses were defined as “more on the right” responses when they were clearly more dots on the right.

***Experienced emotions.*** Immediately following the lying task, participants completed the same measures of experienced emotions as in Study 1. Here, participants were asked to indicate the extent to which they experienced each emotion after viewing the slides and video. We once again calculated scores for positive affect (10 items,  $\alpha = .89$ ), negative affect (10 items,  $\alpha = .90$ ), and compassion (3 items,  $\alpha = .90$ ). All items were displayed in a randomized order. Due to a



programming error, only 269 of the 432 participants were asked about their experienced emotions.

## Results

**Manipulation check.** As expected, the previously validated emotion induction successfully induced compassion. Participants in the compassion condition ( $M = 3.38$ ,  $SD = 0.98$ ) reported more experienced compassion than those in the neutral condition ( $M = 1.62$ ,  $SD = 0.82$ ),  $t(267) = 16.06$ ,  $p < .001$ ,  $d = 1.96$ .

**Prosocial and selfish lying.** Overall, this procedure successfully produced prosocial and selfish lying. Those in the prosocial lie conditions exhibited on average 41.15 clearly dishonest responses ( $SD = 14.66$ ) out of a potential 68 trials (60.51%), and 63.72 ambiguously dishonest responses ( $SD = 18.50$ ) out of a potential 100 trials (63.72%). Those in the selfish lie conditions demonstrated on average 38.08 clearly dishonest responses ( $SD = 13.31$ ) out of 68 trials (56.0%), and 60.13 ambiguously dishonest responses ( $SD = 17.02$ ) out of 100 trials (60.13%).

For each dependent variable (clearly dishonest responses, ambiguously dishonest responses, honest responses), we conducted a 2 (Emotion: compassion / neutral) x 2 (Lie Type: prosocial / selfish) ANOVA.<sup>3</sup>

For clearly dishonest responses, as predicted, there was a significant Emotion x Lie Type interaction,  $F(1,428) = 6.51$ ,  $p = .01$ ,  $\eta^2_p = .01$  (see Figure 4, Panel A). Participants in the compassion condition ( $M = 43.25$ ,  $SD = 16.05$ ) exhibited more clearly dishonest responses for the benefit of the charity (i.e., prosocial lying) than those in the neutral condition ( $M = 39.21$ ,  $SD = 13.03$ ),  $t(212) = 2.03$ ,  $p = .04$ ,  $d = .28$ . There was no statistically significant difference in

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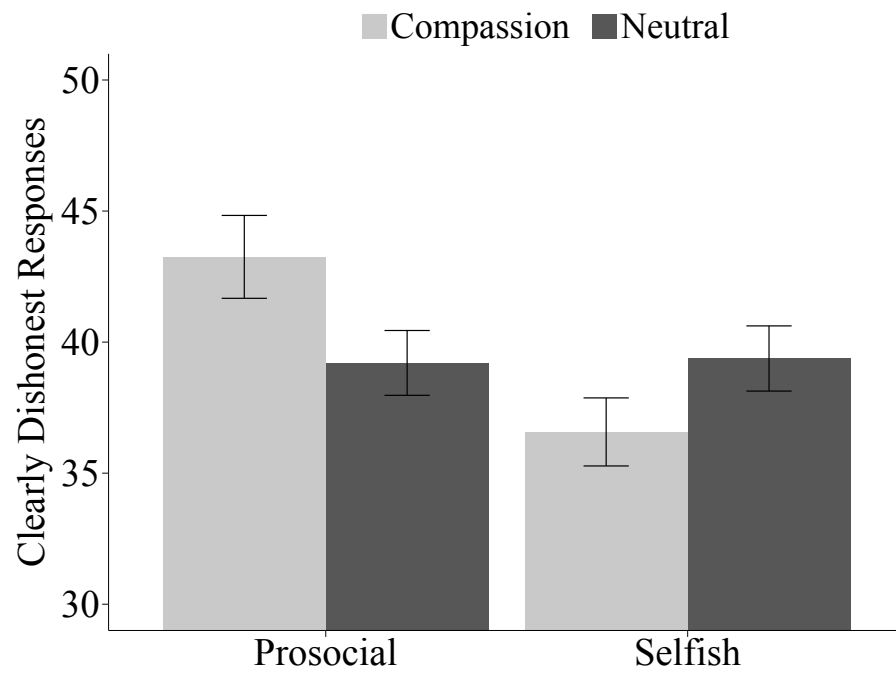
<sup>3</sup> Repeated measures analyses with block (first vs. second) included as a factor are included in the Supplemental Material, though inclusion of block as a factor does not alter the results.

clearly dishonest responses for participants' own monetary gain (i.e., selfish lying) between those in the compassion condition ( $M = 36.57$ ,  $SD = 13.04$ ) and those in the neutral condition ( $M = 39.38$ ,  $SD = 13.45$ ;  $p = .12$ ). In addition, there was a main effect lie type,  $F(1,428) = 5.23$ ,  $p = .01$ ,  $\eta^2_p = .01$ . Those in the prosocial lie conditions ( $M = 41.15$ ,  $SD = 14.66$ ) demonstrated more clearly dishonest responses than those in the neutral conditions ( $M = 38.08$ ,  $SD = 13.31$ ). There was no main effect of emotion ( $p > .25$ ).

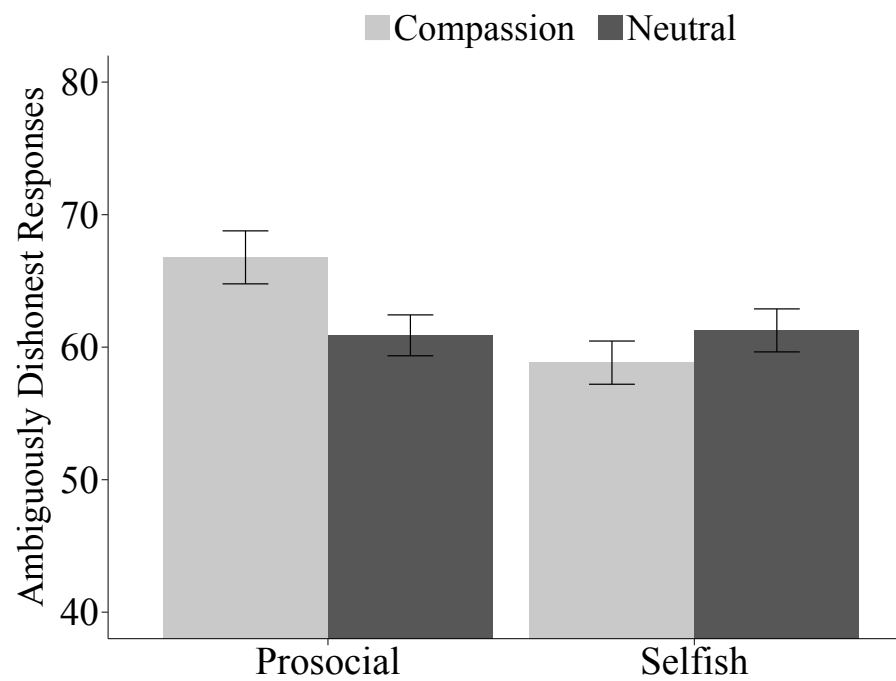
For ambiguously dishonest responses, similar results were obtained (see Figure 4, Panel B). As predicted, there was a significant Emotion x Lie Type interaction,  $F(1,428) = 5.96$ ,  $p = .02$ ,  $\eta^2_p = .01$ . Those in the compassion condition ( $M = 66.78$ ,  $SD = 20.29$ ) exhibited more prosocial lying than those in the neutral condition ( $M = 60.89$ ,  $SD = 16.26$ ),  $t(212) = 2.35$ ,  $p = .02$ ,  $d = .32$ . There was no statistically significant difference in selfish lying between those in the compassion condition ( $M = 58.83$ ,  $SD = 16.39$ ) and those in the neutral condition ( $M = 61.26$ ,  $SD = 17.54$ ;  $p > .25$ ). There was also a main effect of lie type,  $F(1,428) = 4.37$ ,  $p = .04$ ,  $\eta^2_p = .01$ , such that participants engaged in more lying in the prosocial lie condition ( $M = 63.72$ ,  $SD = 18.50$ ) than in the selfish lie condition ( $M = 60.14$ ,  $SD = 17.02$ ). There was no significant effect of emotion ( $p > .25$ ).

For honest responses, as predicted, there was no significant Emotion x Lie Type interaction ( $p > .25$ ; see Figure 4, Panel C). There was also no main effect of lie type ( $p = .11$ ) nor emotion ( $p > .25$ ).

**A**



**B**



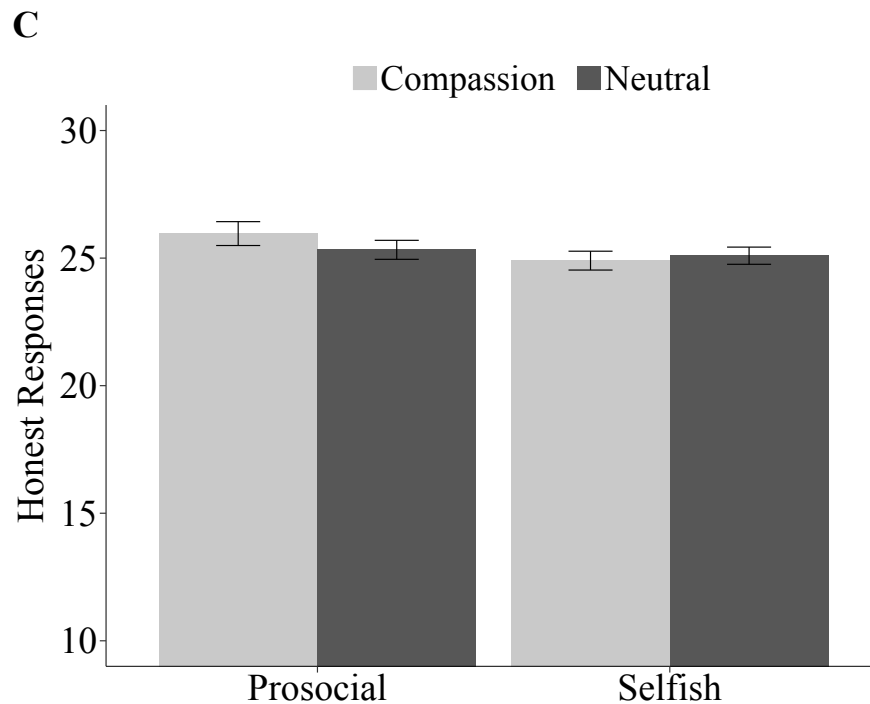


Figure 4. The effect of incidental compassion on clearly dishonest responses (Panel A), ambiguously dishonest responses (Panel B), and honest responses (Panel C) for prosocial and selfish causes in Study 3. Error bars signify standard errors. Note: Maximum possible number of clearly dishonest, ambiguously dishonest, and honest responses was 68, 100, and 32, respectively.

**Experienced compassion predicted prosocial lying.** As an additional test of the specificity of the observed effects, we examined whether prosocial lying was predicted by experienced compassion, as measured by our manipulation check. Experienced compassion marginally predicted clearly dishonest responses ( $p = .07$ ), and significantly predicted ambiguously dishonest responses ( $p = .04$ ). However, experienced compassion did not mediate the effect of compassion on prosocial lying.

**Controlling for positive affect, negative affect, and specific emotions did not account for the observed effects.** To ensure that these effects were specific to compassion and were not due to related emotions or generalized positive or negative affect, we examined the effect of the compassion manipulation on prosocial lying with the inclusion of covariates to control for these other emotions. The effect of compassion on prosocial lying (for both clearly dishonest and ambiguously dishonest responses) held in models controlling for positive and negative affect ( $ps < .05$ ), as well as in models controlling for all individual items of the PANAS ( $ps < .01$ ).

**Personality traits did not account for the observed effects.** The effect of compassion on prosocial lying (for both clearly dishonest and ambiguously dishonest responses) held in models simultaneously controlling for extraversion, agreeableness, neuroticism, conscientiousness, and openness ( $ps < .05$ ). Thus, enduring personality traits could not account for the observed effects.

## **Discussion**

Consistent with Studies 1 and 2, Study 3 found that incidental compassion increased prosocial lying. Critically, the compassion-eliciting stimuli were unrelated to the charity that benefited from participants' dishonest behavior, and the compassion induction still increased prosocial lying.

These results expand the findings of Studies 1 and 2 in several ways. First, Study 3 employed a different operationalization of compassion, and also examined a different type of compassion. Using a large sample, we found that prosocial lying is not only associated with integral (Study 1) and trait (Study 2) compassion, but is also increased by incidental compassion (Study 3). These results offer further evidence for the causal influence of compassion on prosocial lying. Second, the use of another operationalization of prosocial lying in Study 3

bolsters support for the external validity of the effect. In addition to being associated with prosocial lying that prevents emotional harm in the context of providing performance feedback, compassion also increased prosocial lies that promoted financial benefits for a humanitarian aid charity. This phenomenon could present itself in the real world in the form of a charity employee lying on tax returns to reserve more funds for humanitarian work. Third, by examining two types of lies—selfish and prosocial lies—we demonstrated that the beneficiary of the lie is an important moderator of the relationship between compassion and deception. Compassion increased prosocial lying, but not selfish lying. Furthermore, we again ruled out important alternative explanations: other emotions did not explain these effects, nor did personality traits linked to positive affect (extraversion and agreeableness), negative affect (neuroticism), or prosocial behavior (agreeableness).

### **General Discussion**

The present studies provide the first investigation of the emotional underpinnings of prosocial lying. Across studies, we examined compassion at three different levels, demonstrating that both integrally (Study 1) and incidentally (Study 3) induced state compassion causally increase prosocial lying, and that individual differences in trait compassion (Study 2) are positively associated with prosocial lying. Not only did we implement multiple operationalizations of compassion, but we also studied two different types prosocial lies: those that prevent emotional harm, and those that promote financial gain for others. All studies investigated actual lying behavior, rather than attitudes toward lying or hypotheticals. Furthermore, we ruled out alternative explanations across studies that could potentially account for our results—that is, we found that the observed increases in prosocial lying were due to compassion specifically, rather than other discrete emotions, generalized positive or negative

affect, or social perceptions of the target. Together, this research demonstrates how compassion increases prosocial lying.

In addition to uncovering the relationship between compassion and prosocial lying, we also identified a mechanism behind this effect. In Studies 1 and 2, the effect of compassion on prosocial lying was partially mediated by the importance placed on preventing emotional harm. Compassion has been shown to increase prosocial behaviors associated with both harm prevention (e.g., Batson et al., 1981) as well as non-harm-related welfare promotion (e.g., Condon & DeSteno, 2011). However, this mechanism suggests that compassion may make individuals particularly attuned to the preventing suffering of others, even when additional routes to helping others are available (e.g., providing honest feedback).

Moreover, in Study 3, we showed that compassion increased lies that helped a charity, but had no effect on lies that financially benefited participants themselves. This suggests that compassion does not exert global effects on deception, but rather that the beneficiary of the lie is an important moderator of the relationship between compassion and dishonesty. Although the present investigation is focused on how compassion influences prosocial lies, it is worth noting that, to our knowledge, these are the first data to investigate whether compassion influences selfish lies. Thus, while compassion may promote prosocial behavior, this emotion may not have any appreciable (negative) effect on antisocial behavior.

This work contributes to the nascent literature on prosocial lying in several ways. First, no research has yet examined emotion as a causal driver of prosocial lying. Previous research on prosocial lying has focused on identifying contexts in which these lies are told (e.g., DePaulo et al., 1996), responses to those who tell prosocial lies (e.g., Levine & Schweitzer, 2014), or qualitative assessments of reasons for lying (e.g., DePaulo & Kashy, 1998). Our research extends

theory on prosocial lying by providing the first demonstration that compassion is related to and causally influences prosocial lying. In addition, this research provides insight into an important real world context in which prosocial lies are told. Past work has often operationalized prosocial lying using economic games, which afford experimental control but are somewhat limited in external validity (e.g., Erat & Gneezy, 2012; Levine & Schweitzer, 2014; 2015). Given the usefulness of these games for cleanly differentiating prosocial lies from other types of lies (e.g., selfish lies), we borrowed from this approach for our lying task in Study 3. However, by examining prosocial lying in the form of overly inflated person-to-person feedback in Studies 1 and 2, we shed light on how compassion influences behavior in a common situation that affords the opportunity for prosocial lying.

This work also informs scholarly understanding of compassion and how it shapes ethical behavior. While compassion's positive influence on prosocial behavior has been widely documented, little work has examined how compassion affects moral decision making, and no work has examined how compassion influences behavior when different ethical principles are pitted against one another. According to Moral Foundations Theory (Graham et al., 2011; Haidt & Graham, 2007; see also Shweder, Much, Mahapatra, & Park; 1997), people across cultures conceive of actions and beliefs in several different domains as morally relevant. Lying may be regarded as a violation of the principle of honesty (Graham et al., 2015) and the decision to tell a prosocial lie presents a conflict between the principle of honesty and the principle of harm and care—the obligation to aid the welfare of others. Our work suggests that compassion might cause people to consider harm and care more heavily in ethically ambiguous situations. More research would help to illuminate how compassion influences the weighting of harm/care relative to other moral values across a broader spectrum of moral dilemmas.



In addition, this research contributes to a growing body of work that highlights how, despite the prosocial benefits it often affords, compassion can sometimes lead individuals to act contrary to what is truly in others' best interests (e.g., Bloom, 2014; Cameron & Payne, 2011). Similarly to how compassion draws attention and resources to identifiable victims rather than to comparably greater atrocities (Small, Loewenstein, & Slovic, 2007), our results suggest that compassion may bias individuals toward alleviating immediate emotional harm rather than attending to others' longer-term goals (e.g., performance improvement resulting from critical feedback). However, it may also be that when honesty is perceived to result in future benefits for a target that far outweigh the benefits of lying, compassion could lead individuals to be more honest. While recent work has begun to address how positive emotions such as gratitude influence temporal discounting (DeSteno, Li, Dickens, & Lerner, 2014; Dickens & DeSteno, 2016), further research is necessary to understand how compassion influences valuations of others' short-term and long-term goals.

Another area for future research lies in how the relationship between the lie teller and the target of the lie moderates the effect of compassion on prosocial lying. One limitation of the present studies is that participants were given the opportunity to lie only to strangers. As such, it is critical to determine whether these effects generalize to closer relationships. The relationship between compassion and prosocial lying may differ depending on the in-group/out-group membership of the lie target, or the lie teller's perceived closeness to the target. People feel more compassion towards those to whom they are closely related (Cialdini et al., 1997), and people also tell more prosocial lies to close others than selfish lies (DePaulo & Kashy, 1998). Thus, it is possible that an interaction exists between compassion and the closeness of the lie target on

prosocial lying. If this is the case, then compassion would exert an even stronger influence on prosocial lies told between friends, coworkers, or relationship partners.

According to Ralph Waldo Emerson (1888), “the purpose of life...is to be honorable, to be compassionate, to have it make some difference that you have lived and lived well.” Unfortunately, Emerson did not offer guidelines for how one should behave when helping others requires an act that some may view as dishonorable, such as lying. The present research suggests that compassion may provide that moral compass by leading individuals to tell lies that are intended to benefit others. Indeed, many people likely lie not in spite of their concern for others, but rather because they care.

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