



Articles

Mere Civility, or Genuine Forgiveness? Prosocial Consequences of Belief in Free Will

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Abstract

Recent empirical findings suggest that greater belief in free will predicts positive behavioral outcomes, such as lowered aggression, decreased cheating, bettered work performance, and improved learning. To expand on this research, the current investigation re-examines the link between stronger belief in free will and pro-social behavior in the context of transgressions in interpersonal relationships. Taking into account that one's philosophical beliefs can fluctuate in strength and across time, we conducted a daily diary survey of 85 undergraduates who reported interpersonal offenses for 14 days. Data were analyzed with a multi-level approach. We found that believing more strongly in free will was associated with greater decisional forgiveness, but was unrelated to emotional forgiveness. Higher levels of belief in scientific determinism, on the other hand, were related to greater emotional forgiveness. These relationships were not mediated by relationship attributions.

Keywords: forgiveness, beliefs, attributions, free will, determinism

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Introduction

Research suggests that one's philosophical beliefs, such as beliefs in free will and determinism, can lead to different patterns of overt behavior. Belief in free will, a philosophical stance regarding humans' responsibility and power to choose outcomes, has been shown to predict better work performance as well as attitudes about work (Stillman, Baumeister, Vohs, Lambert, Fincham, & Brewer, 2010) and facilitation of learning (Stillman & Baumeister, 2010). On the other hand, determinism, a stance that suggests that antecedent forces produce inevitable results, has been aligned with negative outcomes. In previous experimental work, when participants demonstrate stronger belief in determinism, as opposed to free will, they are more likely to cheat on tests (Vohs & Schooler, 2008) offer less help, and behave more aggressively (Baumeister, Masicampo, & DeWall, 2009). Similarly, disbelief in free will is associated with reports of more maladaptive behaviors (e.g., drug addiction, Vohs & Baumeister, 2009). This research suggests two important critiques that have not received much attention in the literature. The first is that these findings suggest that our beliefs are not static, but fluctuate in magnitude and across time based on our experiences, despite what we might report regarding the philosophical merits our particular belief sets. Both attitudinal and behavioral measures evidence such fluctuation. The second important critique is that the effects

of our philosophical beliefs are not well understood beyond individual-centered tasks that can be carried out in an experimental arena. Work is needed that assesses beliefs across time in a naturalistic context.

To be clear, this paper will not address or purport to resolve the intractable debate surrounding free will and determinism. We intend only to observe behaviors that occur in conjunction with the fluctuations in our beliefs over the course of time. It is also important to note that we do not hold free will and determinism to be the only two candidate beliefs individuals can have, or that these are mutually exclusive belief sets. Many contemporary models allow for compatibilism, or a stance that allows concurrent belief in free will and determinism (Paulhus & Carey, 2011).

Past work has shown that priming can modify one's beliefs. In seminal work by Vohs and Schooler (2008), it was shown that individuals can be influenced relatively quickly to believe more strongly in deterministic forces by having participants read a series of deterministic messages for about one minute each. In this case, the relative strength of one's belief is reflective of a higher score on a psychometric instrument, and indicates that one will be more likely to exhibit behaviors in accordance with a particular viewpoint. Thus, beliefs are not simply tenets that one either subscribes to or does not, but they make different environmental possibilities accessible to individuals according to their relative level of activation. Given the ease with which the priming manipulation was accomplished, it seems quite likely that one's philosophical stances naturally fluctuate over time, and according to circumstance. However, the temporal fluctuation that occurs in real-world settings is not well understood. For example, temporal fluctuation might lead one to espouse a strong belief in free will on one day, and a more moderate view the next. Thus, it is important to measure several philosophical beliefs concurrently in order to perform an appropriate analysis of fluctuation.

Furthermore, past work has tended to study philosophical stances such as belief in free within a narrow range of contexts (e.g., workplaces, academic, laboratory environments). In these studies, those whose beliefs in free will are the strongest seem to be well equipped to excel at subsequent tasks in these environments. These settings share in common a tendency to emphasize individual merit, performance, and the pursuit of self-interest, perhaps making belief in free will naturally advantageous. After all, belief in free will is characterized by believing that one's strength of mind prevails over all obstacles. A student who embodies this belief set will likely succeed, by merit of putting in more study hours, or recruiting more resources like tutoring or outside help. By contrast, believing in a world determined by constraints and personal limits might inhibit achievement, rather than facilitate it. An office worker who strongly believes he/she is determined by external forces, such as management dictates, genes, or upbringing, might feel less motivation to strive, to express creative or novel ideas, be cooperative with coworkers, and be less likely to set goals for himself/herself.

On the other hand, some contexts do not confer the same advantages to free, unrestricted mindsets in the same way. For instance, an interpersonal relationship context is quite different from those mentioned above. Research has long heralded the importance of reciprocal conduct (Buunk & Schaufeli, 1999; Gouldner, 1960). Partners make prolonged attempts to maintain equity through mutual cooperation, and failure to consistently meet partners' expectations can lead to a host of interpersonal issues (Eisenberger, Lynch, Aselage, & Rohdieck, 2004; Falk & Fischbacher, 2006) and even psychological problems (Glantz & Pearce, 1989). Thus, perhaps relationships *require* a person to be determined by forces outside the self. We often restrain ourselves in intimate relationships; for example, each partner usually is forbidden to have other concurrent or extradyadic partners, and they are expected to share important standards for religious and political observances, as well as ordinances governing shared

spaces (e.g., cleanliness, keeping appointments), and social engagements, to name a few. Thus, to some extent we expect that our partners will submit to our expectations.

Considering these relational boundaries, it might be reasonable to expect that believing in a scientifically determined world—one in which present circumstances result from known, unchanging antecedents and causes (Paulhus & Carey, 2011)—might have unique adaptive advantages in a relationship. Being in a relationship in which behaviors are determined by a set of mutual, tacitly or explicitly agreed upon norms might be considered “safer” than being in a relationship where a partner refuses to be bound by common rules or assumptions (Gordon, Baucom, & Snyder, 2004). Situations in which partners have violated these mutual assumptions or relationship rules could become particularly salient in betrayal situations and perceptions regarding whether one’s partner violated these rules voluntarily (or of his/her own free will) or involuntarily due to external influences are likely to influence the likelihood of forgiveness. Along these lines, research has shown that believing in free will is associated with harsher judgments of criminal conduct (Stroessner & Green, 1990). Further, it has been demonstrated that experimentally inducing *anti*-free will belief is associated with the recommendation of fewer years of imprisonment for criminals in hypothetical trials (Shariff, Greene, & Schooler, 2009). These results call into question the hypothesis that believing in free will leads to more positive outcomes in general, and suggest that the relational context needs to be investigated further, particularly in the case of interpersonal transgressions.

In the current paper, we examine a philosophical model proposed by Paulhus and Carey (2011), which suggests that a person’s beliefs are comprised of four non-exclusive belief factors (free will, scientific determinism, fatalistic determinism, and unpredictability). In this approach, scientific deterministic beliefs are those in which biological or environmental forces shape one’s behaviors, such as genes or upbringing. Fatalistic determinism, on the other hand, involves assertions that fate controls all outcomes, and humans have no sway. Additionally, there is a viewpoint that supposes that happenstance, chance conditions as responsible for the events in life (unpredictability). In this paper, we are mainly interested in individuals’ belief in free will and scientific determinism, but we continue to consider the influence of fatalistic determinism and unpredictability as well as the other belief factors could introduce confounding influences. For instance, individuals have been found to perceive greater free will in others following presentation of randomly sequenced events compared to predictable ones (Ebert & Wegner, 2011). We readily that there is an ongoing debate surrounding the measurement of philosophical beliefs (see Nadelhoffer, Shepard, Nahmias, Sripada, & Ross, 2014), but we believe our approach, which allows for compatibilism, to be adequate for an initial foray into the predictive patterns of naturalistically-occurring beliefs.

The current paper investigates the possibility that mechanistic views of the world (i.e., greater belief in scientific determinism) are related to greater forgiveness. One reason for this association is that offenders could be perceived as less responsible for misdeeds, because their misconduct is a natural outgrowth from their antecedents. Perhaps such a belief set allows a person to be more objective, and thus more open to the possibility of perspective taking. Indeed, the capacity to take another’s perspective has shown positive associations with forgiveness in past literature (Brown, 2003; Exline, Baumeister, Zell, Kraft, & Witvliet, 2008; Takaku, Weiner, & Ohbuchi, 2001; Welton, Hill, & Seybold, 2008), as has the capacity to see oneself as similar to an offender (Exline, Baumeister, Zell, Kraft, & Witvliet, 2008). It has not been demonstrated, however, whether believing more strongly in the power of general, broad-scale, scientific, deterministic antecedents, such as genes, one’s upbringing, past situations, heredity, would be associated with greater forgiveness. Such a finding would be a novel contribution, because it suggests that one’s naturally-occurring philosophical beliefs might be predictive of forgiveness of offenses.

The current study defines forgiveness as a restorative stance one can adopt toward an offender, which can be either a relatively behavior-focused and incomplete process, not necessarily resolving negative thoughts or feelings (i.e., *decisional forgiveness*) or an in-depth, comprehensive attempt to replace negative feelings, cognitions, and behaviors with positive ones (i.e., *emotional forgiveness*; Worthington, Witvliet, Pietrini, & Miller, 2007). Decisional forgiveness is considered to be a diminished form of forgiveness, in which an injured person volitionally modifies his/her behavior to appear forgiving and claims to have forgiven an offender, but still might harbor many negative feelings. By contrast, emotional forgiveness occurs when a victim actively replaces negative thoughts, feelings, and motivations regarding an offender with more positive ones, and experiences renewed warmth toward an offender.

The primary aim of this paper is to examine whether there is a concurrent association between one's philosophical beliefs and forgiveness of transgressions. However, since belief sets are indigenous to the individual, it is possible that one's belief could prospectively affect future forgiveness in general. That is, we should consider not only that one's beliefs could influence forgiveness at the time of assessment, but it is also possible that one's philosophical beliefs at one time could influence forgiveness reports of unrelated offenses committed by other individuals at a later time. Longitudinally studying philosophical stances and subsequent forgiveness of offenses requires that we test both *concurrently* with philosophical beliefs (on the same time point), but also *prospectively* (on subsequent time points).

Hypotheses

Following our review of the literature, we have advanced the following hypotheses for our study:

Hypothesis 1: Higher belief in free will should predict lower emotional forgiveness, as it is expected that the personal responsibility entailed in a free will worldview should be associated with perceiving offenders as blameworthy, intentional perpetrators of a misdeed. Baumeister et al. (2009) suggest that certain positive outcomes become more likely as one believes in free will, but as discussed earlier, the opposite might be expected in the context of interpersonal relationships where a transgression has occurred. If a betrayed individual believes strongly that people are free to choose, can change, and are fully responsible for what they do, holding such beliefs implies that an offender's wrongdoings were willful decisions and that the offender could have chosen to do otherwise.

Hypothesis 2: Greater *scientific* determinism, which represents a worldview that is mechanistic and predictable—but not fatalistic determinism—should predict greater emotional forgiveness in relationships. If a person believes strongly that actions are scientifically determined, predictable outcomes, emotional forgiveness might be more likely, as these beliefs imply that anyone might be expected to perform this misdeed given a pre-existing set of antecedents (e.g., personality, upbringing, genes).

Hypothesis 3: Because decisional forgiveness does not require the erasure of negative feelings, only the change of one's outwardly visible forgiving behaviors, greater decisional forgiveness should therefore be associated with greater belief in free will. Since free-will believing victims should perceive greater control over this behavior, they would be expected to choose more honorable, civil, publically magnanimous behaviors rather than grudge-holding, embittered ones. Again, belief in fatalistic determinism and unpredictability were used as controls.

Hypothesis 4: Beliefs should be prospectively linked with emotional and decisional forgiveness. Specifically, we expected that belief in scientific determinism on any given day should be associated with greater emotional forgiveness on subsequent days. Furthermore, we expected that belief in free will on any given day should be associated with greater decisional forgiveness on subsequent days. Since we are investigating the role of beliefs as facilitators or inhibitors of decisional and emotional forgiveness, it is important to consider that the influence of beliefs could be observable on multiple days. This finding would be consonant with past research, which has shown that changes in one's state beliefs can lead to distinct differences in subsequent behavioral and emotional patterns (Baumeister, Masicampo, & DeWall, 2009; Vohs & Schooler, 2008).

Hypothesis 5: We expected that the negative association between one's philosophical beliefs and emotional forgiveness should be mediated by attributions of responsibility. Relationship attributions are clustered into two main types, responsibility and causality. Responsibility attributions have to do with how blameworthy, responsible, and intentional a partner's behavior is thought to be. Believing in free will emphasizes personal choices and responsibility regardless of environment or biological conditions, and therefore we suggest that offenders would be viewed as more responsible for the wrongdoings they perpetrate. Accordingly, relationship attributions, or the characteristic ways that individuals explain the behaviors of their partners (Fincham & Bradbury, 1992), might be implicated in the relationship between free-will beliefs and forgiveness.

Hypothesis 6: It is expected that the negative association between free will belief and emotional forgiveness should be partially mediated by responsibility attributions and that the positive association between scientific determinism and emotional forgiveness should be partially mediated by causal attributions. Causal attributions represent the extent to which a partner's behavior is interpreted as internally or externally caused (locus), consistent or variable (stability), and pertains to broad or narrow dimensions of character (globality; Hall & Fincham, 2006). Accordingly, belief in scientific determinism presumes that environmental and biological forces can strongly influence behaviors, a viewpoint that might influence the causal attributions made about a transgression, which in turn might influence levels of forgiveness. Further, we investigated whether certain subtypes of responsibility (intentionality, blameworthiness, selfishness) and causality (stability, locus, and globality) attributions demonstrated stronger mediational links in their respective relationships with belief in free will/scientific determinism and emotional forgiveness than the total scores.

Methods

Participants

A total of 85 native English-speaking participants were recruited from a mid-sized southeastern university. Average age was 19.2 years. Participants were recruited from introductory psychology courses to participate in an online study having to do with interpersonal transgressions. There were no exclusionary criteria regarding race, sex, religious affiliation, or sexual orientation, though it was required that participants be enrolled as undergraduates and be at least 18 years of age.

Measures

Belief in free will/determinism — Participants will complete the FAD-Plus (Paulhus & Carey, 2011) on each day of measurement to gauge belief in free will, scientific determinism, fatalistic determinism, and unpredictability.

Responses to each item range from 1 (“totally disagree”) to 5 (“totally agree”). Sample items include “Strength of mind can always overcome the body’s desires,” and “No matter how hard you try, you can’t change your destiny.” Reliabilities for each of the four subscales of the FAD-Plus are .63 (unpredictability), .69 (free will), .69 (scientific determinism), and .82 (fatalistic determinism). Construct validity of the measure has been assessed by correlations with Big-5 Extraversion and Agreeableness, as well as discriminant validity with regard to locus of control, (Paulhus & Carey, 2011) consistent with previous free will scale findings (Stroessner & Green, 1990).

Forgiveness — The Emotional Forgiveness Scale (EFS) and Decisional Forgiveness Scale (DFS) will be used for the present study (Worthington, Hook, Utsey, Williams, & Neil, 2007). They each consist of 8 items, completed in reference to a specific offender and offense situation. Participants report their behavioral intentions and forgiving emotions by endorsing items on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*). Reliabilities for each scale are good, above .80. The scales demonstrate construct validity through correlation with measures of relationship motivations as well as interpersonal forgiveness (Worthington, Hook, et al., 2007).

Attributions — Fincham and Bradbury’s Relationship Attributions Measure (RAM; 1992) will be used to measure the extent to which people make attributions of responsibility or cause about the behaviors of each of 14 transgressors they will have encountered throughout the study. The scale has been adapted for this study, replacing stems “spouse” and “partner” with “this person.” The RAM used here is a 4-item measure designed to assess dimensions of individuals’ explanations for their transgressors’ hypothetical behaviors. It measures six dimensions: (a) cause attributions such as locus, stability, globality of the cause for the transgressors’ behaviors; and (b) blame attributions such as the motivation, intentionality, and justification for the transgressors’ behaviors. The scale showed acceptable reliability (all *r*’s > .70) and validity through appropriately high correlations with marital satisfaction and anger (Fincham & Bradbury, 1992).

Procedures

Participants filled out an initial demographic questionnaire, followed by a two-week daily diary study, for which data collection occurred nightly between 7:00 and 9:00 P.M., Eastern Standard Time. Participants received course credit in return for their participation in this study. Participants recalled offenses they had suffered on each day, and completed the questionnaires about that offense. Instructions were given not to report on the same offense on subsequent days, and offense reports were checked. Questionnaires were administered in the same format each day. All data were analyzed using a multi-level modeling approach, specifying within-persons effects for the variables studied.

Analyses

Effects were modeled using the Hierarchical Linear Modeling 6.08 computer program (Bryk, Raudenbush, & Congdon, 2004). All predictors were group-centered, meaning that effects are modeled using each individual participant’s mean rather than a grand mean, which gives us greater confidence that any effects found will not be attributable to influential scores and give us a better picture of processes that might give rise to certain forgiveness attitudes. Additionally, we controlled for mean levels of level of belief in free will and scientific determinism at the second level. All analyses were run specifying non-random effects at slopes.

We separately regressed individual's emotional forgiveness and decisional forgiveness onto participants' belief in free will, scientific determinism, fatalistic determinism, and unpredictability using the following equations:

$$Y_{tp} \text{ (Emotional forgiveness)} = \pi_{0p} \text{ (Intercept)} + \pi_{1p} \text{ (Belief in free will)} + \pi_{2p} \text{ (Belief in scientific determinism)} + \pi_{3p} \text{ (Belief in fatalistic determinism)} + \pi_{4p} \text{ (Belief in unpredictability)} + e_{tp} \quad (1)$$

$$Y_{tp} \text{ (Decisional forgiveness)} = \pi_{0p} \text{ (Intercept)} + \pi_{1p} \text{ (Belief in free will)} + \pi_{2p} \text{ (Belief in scientific determinism)} + \pi_{3p} \text{ (Belief in fatalistic determinism)} + \pi_{4p} \text{ (Belief in unpredictability)} + e_{tp} \quad (2)$$

Do participants' beliefs on one day predict emotional forgiveness on subsequent days? — We examine prospective relationships between philosophical stance and emotional forgiveness, and multi-level modeling allows us to make more appropriate conclusions regarding associations between within-persons measures over the course of time. In order to test whether there is a prospective association between participants' belief in scientific determinism on one day is associated with emotional forgiveness on subsequent days, we tested the following equation:

$$\text{(Emotional forgiveness)}_{ij} = \pi_{0j} + \pi_{1j} \text{ (Belief in scientific determinism)}_{i-1,j} + \pi_{2j} \text{ (Emotional forgiveness)}_{i-1,j} + \pi_{3j} \text{ (Belief in fatalistic determinism)}_{i-1,j} + \pi_{4j} \text{ (Belief in unpredictability)}_{i-1,j} + r_{ij} \quad (3)$$

Here, the emotional forgiveness of a participant j on any given day i is a function of his or her belief in scientific determinism on the previous day, $i - 1$, controlling for his or her emotional forgiveness on the previous day, $i - 1$. This allows us to test for distal links between belief in scientific determinism and emotional forgiveness on subsequent days. A similar equation was devised to test the prospective association of belief in free will on decisional forgiveness.

$$\text{(Decisional forgiveness)}_{ij} = \pi_{0j} + \pi_{1j} \text{ (Belief in free will)}_{i-1,j} + \pi_{2j} \text{ (Decisional forgiveness)}_{i-1,j} + \pi_{3j} \text{ (Belief in fatalistic determinism)}_{i-1,j} + \pi_{4j} \text{ (Belief in unpredictability)}_{i-1,j} + r_{ij} \quad (4)$$

Results

First, we tested the contribution of one's philosophical stances over time in the prediction of emotional forgiveness of daily offenses. Contrary to our prediction in Hypothesis 1, we did not find a negative association between participants' belief in free will and emotional forgiveness. However, consistent with what we predicted in Hypothesis 2, we found that as each participant increased in his or her belief in scientific determinism over the course of the study, there was a significant increase in emotional forgiveness ($\beta = .20$, $p < .05$). Results of our test of Equation 1 are presented in Table 1.

Table 1

Philosophical Stance in the Prediction of Emotional Forgiveness (Betas are Unstandardized)

| Belief variable | β (S.E.) | t-ratio (df = 500) |
|------------------------|----------------|--------------------|
| free will | -.15 (.15) | -1.00 |
| scientific determinism | .20 (.10) | 1.96* |
| fatalistic determinism | -.16 (.07) | -2.41* |
| unpredictability | .14 (.10) | 1.36 |

* $p \leq .05$.

Next, consistent with Hypothesis 3, we found that as each participant increased in his or her belief in free will, there was a proportional increase in decisional forgiveness over the two week period ($\beta = .25, p < .01$). No other subscale in the FAD-Plus was significantly associated with this outcome. Results appear in Table 2. Further, although it was not predicted, we found that as each participant believed more strongly in fatalistic determinism, there was a decrease in emotional forgiveness ($\beta = -.16, p < .05$).

Table 2

Philosophical Stance in the Prediction Of Decisional Forgiveness (Betas are Unstandardized)

| Belief variable | β (S.E.) | t-ratio (df = 500) |
|------------------------|----------------|--------------------|
| free will | .22 (.07) | 3.20* |
| scientific determinism | .00 (.07) | 0.02 |
| fatalistic determinism | -.05 (.05) | -1.01 |
| unpredictability | .00 (.06) | 0.05 |

* $p \leq .05$.

Additionally, we expected to find a positive prospective association between belief in scientific determinism on any given day and one's emotional forgiveness of offenses on subsequent days. Although we predicted a prospective association between belief in scientific determinism and subsequent day emotional forgiveness (Hypothesis 4), no effects were found when we evaluated a model that included all four philosophical stances and controlled for participants' emotional forgiveness on subsequent days. Furthermore, there were no prospective effects regarding belief in free will and decisional forgiveness. Results appear in Table 3.

Table 3

Prospective Associations of Philosophical Stance on Emotional and Decisional Forgiveness (Betas are Unstandardized)

| | Emotional forgiveness | | Decisional forgiveness | |
|--|-----------------------|-------------------|------------------------|--------------------|
| | β (S.E.) | t-ratio | β (S.E.) | t-ratio |
| previous day: belief in free will | .02 (.19) | .09 | - | - |
| previous day: belief in scientific determinism | .17 (.11) | 1.49 | - | - |
| previous day: belief in fatalistic determinism | .21 (.12) | 1.79 [†] | - | - |
| previous day: belief in unpredictability | .02 (.09) | .20 | - | - |
| previous day: emotional forgiveness | .03 (.05) | .61 | - | - |
| previous day: belief in free will | - | - | .14 (.09) | 1.62 |
| previous day: belief in scientific determinism | - | - | .07 (.08) | .90 |
| previous day: belief in fatalistic determinism | - | - | .01 (.07) | .08 |
| previous day: belief in unpredictability | - | - | .07 (.08) | .91 |
| previous day: decisional forgiveness | - | - | -.13 (.07) | -1.89 [†] |

[†] $p < .10$. * $p < .05$.

Finally, regarding Hypotheses 5 and 6, mediational links could not be established, because attributions were statistically unrelated to one's beliefs.

Discussion

The current longitudinal study adds to what is known about the outcomes associated with harboring certain beliefs, specifically one's beliefs in free will and scientific determinism. Our findings add to what is known about conditions that might make forgiving more likely, and examines the previously unconsidered role of belief in scientific determinism in facilitating emotional forgiveness. Additionally, findings in this study lend additional construct support for emotional and decisional forgiveness typologies.

In close relationships, partners constantly navigate common, agreed-upon relational rules, and the violation of these agreements might constitute a relational transgression. If one has a belief system that views people as the products of their own upbringings, past experiences, genes, and personalities, this view might make it easier to cope with and understand transgressions. We found some evidence supporting this idea: individuals' emotional forgiveness, or deep, comprehensive revision of their negative thoughts and feelings about wrongdoers, was greater when they believed more strongly in scientific determinism. The association between belief in scientific determinism and emotional forgiveness was not mediated by attributions, possibly indicating that one's beliefs belong to a process distinct from attributions. Perhaps one's belief in scientific determinism allows an individual to discern uncontrollable factors and other influential antecedents that made specific transgressions more likely, which in turn allows individuals to better appreciate the offender's perspective and thus become more forgiving.

On the other hand, decisional forgiveness, which is essentially a well-meaning revision of one's outward negative behaviors, but not necessarily thoughts or feelings, is more likely when one believes more strongly in free will. This finding might indicate that following a transgression, a publically forgiving stance is readily adopted when individuals believe more strongly in a world where actions are willfully chosen. It is possible individuals feel compelled to choose to exhibit the most socially desirable, behaviors in these instances; being forgiving to offenders is often perceived as the proper action (Struthers et al., 2014). It is possible that decisional forgiveness can lead to emotional forgiveness later. However, contrary to expectations, beliefs about free will were not negatively associated with emotional forgiveness, even though we predicted that this belief might make people hold their offenders more responsible for their actions. Taken together, it appears that belief in free will might have more implications for one's own choice of prosocial actions, in this case decisional forgiveness, than one's emotional stance toward others. This finding is consistent with previous research linking free will with more prosocial behaviors (e.g., Vohs & Schooler, 2008).

Because observations of free will and forgiveness were collected daily, we also were able to test for possible prospective relationships between beliefs on one day and forgiveness of a separate offense on the next day. However, our findings did not support this hypothesis. Additionally, relational attributions were unrelated to philosophical beliefs. This is, however, notable in that previous research has criticized the use of the FAD-Plus measure, asserting that its items contain attributional statements of responsibility (Deery, Davis, & Carey, 2014). Given this result, it is possible that FAD-Plus does not reflect attributions of offender conduct in a way that influences victims' attributions in mundane daily transgressions.

This study is limited in several ways. First, because a student sample was used, the attitudes and individual differences we measured, as well as the events these participants encountered and reported, systematically differ from other important populations. Other samples should be sought in future research. Additionally, the procedure of recalling a new transgression daily, although novel, has some flaws. It is assumed here that there is variability

in transgressional severity and closeness of offender to victim, but future studies should control for these aspects. Further, it is an open question as to how much participants can meaningfully forgive a transgression on any given day, and future work might assess the associations between belief systems and forgiveness of specific transgressions over time. This information would not only be helpful for determining forgiveness trajectories on the basis of one's beliefs, but also for providing additional construct validity of emotional and decisional forgiveness typologies. Other future work should consider implementing experimental manipulations of participants' belief in free will and scientific determinism and assess subsequent forgiveness behavior. Controls should be included for gender, age, and trait forgiveness.

A strength of the current study is that it does not depict beliefs as unchanging, static-state variables, as they are often treated. People simultaneously subscribe to multiple points of view, and this expression changes over time and across situations. Circumstances can shape our beliefs, and beliefs can shape our actions. Fluctuations associated with one's beliefs appear to have a role in influencing important prosocial behaviors. This is important to consider in cases where people experience lingering unforgiveness, but desire to forgive. Philosophical beliefs may play a long-understated role in the transformation of merely appearing forgiving about past wrongdoings and actually revising our negative feelings regarding offenders.

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Competing Interests

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