AMERICAN PSYCHOLOGICAL ASSOCIATION

Journal of Personality and Social Psychology:
Attitudes and Social Cognition

© 2026 The Author(s)
ISSN: 0022-3514

2026, Vol. 130, No. 3, 431–451
https://doi.org/10.1037/pspa0000472

Social Distancing From Innocent Victims by Spatial Distality

Rael J. Dawtry[1], Mitchell J. Callan[2], Lucy H. Waldren[2], and Charli Sherman[1]
[1] Department of Psychology, University of Essex
[2] Department of Psychology, University of Bath

Drawing on just-world theory and theories of psychological distance, we tested the idea that people respond to injustice by symbolically distancing themselves from innocent victims. Across 12 studies using varied victimization contexts and spatial arrangement methods, we examined whether perceived injustice motivates people to place victims further from the self in visual space based on perceived value or personality similarity. Participants distanced themselves from victims receiving unjust (vs. just or neutral) outcomes by placing a symbolic self-representation farther from the victims' names in 2D space (Studies 1a–1c). Study 2 found that this distancing effect was independent of victim derogation and blame, while Study 3 demonstrated that distancing was especially pronounced for traits central (vs. peripheral) to the self-concept. Studies 4a/4b revealed that distancing depends on victims' innocence and perceived injustice, ruling out a general avoidance account. Studies 5a/5b confirmed that spatial distancing corresponds to perceived dissimilarity, and Studies 6a/6b showed the reverse process: identical outcomes were judged as more unjust when they befell spatially close versus distant others. Finally, Study 7 extended these findings to self-relevant contexts, showing that participants distanced their current self from past selves who experienced unfair (vs. fair) events, over and above subjective and objective temporal distance. Taken together, these findings highlight the reciprocal relationship between experiences of injustice and symbolic social distancing, revealing how people mentally represent victims as more or less distant from the self, and contribute to the broader understanding of social and spatial representations of self–other (dis)similarity.

Statement of Limitations

We investigated social distancing from innocent victims via spatial distance using experimental methods but not longitudinal designs. We validated our manipulations of unjust (vs. just) outcomes and spatial distance and ruled out avoidance of negative stimuli and victim rejection as primary explanations for the observed effects. Our studies were adequately powered to detect true effects. We did not formally assess the reliability of our spatial measures, but we drew on established paradigms, and replication and validation were central to the program of research. We used diverse methods, varying spatial arrangement methods and victimization contexts, including both self- and other-focused designs. However, the effects were not examined in field settings, and the victimization scenarios, though relatable to everyday experience, were artificial. That said, Study 7 found that recalling real, self-relevant unfair events produced similar distancing effects. Future research should examine whether these effects emerge in more high-impact situations. Finally, we did not test the effects across time or cultures. Cross-cultural research is needed to assess whether social distancing from innocent victims generalizes to more diverse populations.

Keywords: just world theory, social distancing, psychological distancing, responses to victimization

Supplemental materials: https://doi.org/10.1037/pspa0000472.supp

John V. Petrocelli served as action editor.

Mitchell J. Callan https://orcid.org/0000-0002-6737-8281

Rael J. Dawtry and Mitchell J. Callan contributed equally to this work. First authorship was determined by a coin toss. All data, materials, and analysis syntax are available at https://osf.io/6ygtd/. This research was supported by the Research Promotion Fund from the Departments of Psychology at the Universities of Bath and Essex.

Open Access funding provided by University of Bath: This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0; https://creativecommons.org/licenses/by/4.0). This license permits copying and redistributing the work in any medium or format, as well as adapting the material for any purpose, even commercially.

Rael J. Dawtry played a supporting role in formal analysis and project administration and an equal role in conceptualization, data curation, funding acquisition, investigation, methodology, resources, supervision, validation, writing–original draft, and writing–review and editing. Mitchell J. Callan played a lead role in formal analysis and project administration and an equal role in conceptualization, data curation, funding acquisition, investigation, methodology, resources, supervision, validation, writing–original draft, and writing–review and editing. Lucy H. Waldren played a lead role in visualization, a supporting role in data curation, investigation, methodology, and writing–review and editing, and an equal role in formal analysis and validation. Charli Sherman played a supporting role in data curation, investigation, methodology, and writing–review and editing.

Correspondence concerning this article should be addressed to Mitchell J. Callan, Department of Psychology, University of Bath, Claverton Down, Bath, BA2 7AY, United Kingdom. Email: m.j.callan@bath.ac.uk

Lerner's (1980) just-world theory posits that people need to believe that the "world" is a just, fair, nonrandom place where people, in general, get what they deserve. Committing to a just-world is functional, allowing people to pursue long-term goals with confidence that their investments will yield the outcomes they deserve (Callan et al., 2013; Callan, Harvey, & Sutton, 2014; Hafer, 2000b; Lerner, 1977). Given its functional importance, people construe events to fit this belief when, as Lerner's (p. viii) put it, "they discover that they are not living in a 'rose garden'." Indeed, research has demonstrated that people engage in various psychological strategies to come to terms with, deny, explain away, or otherwise breathe meaning into experiences of an *un*just world (for reviews, see Ellard et al., 2016; Hafer & Bègue, 2005; Hafer & Rubel, 2015). This work has mainly focused on how people derogate or blame victims to maintain a commitment to justice. For example, in their classic experiment, Lerner and Simmons (1966) found that observers devalued the character of a supposed shock victim when they were unable to help and believed her suffering would continue (for a review, see Dawtry et al., 2020). In this way, derogating the victim helped sustain the belief that her suffering was deserved, as in a just world, misfortune should befall only "bad" people.

Yet derogation and blame are not always reliable or normative responses to the suffering of innocent victims; recent work suggests these effects emerge only under specific conditions, such as when contexts are emotionally engaging for the observer or when social norms proscribing negative reactions to victims are weaker (see Dawtry et al., 2018, 2020; Hafer et al., 2019). This raises the possibility that derogation is not the default strategy for maintaining belief in a just world and that people may engage in subtler strategies that are more psychologically tractable or socially acceptable than rejecting innocent victims (Hafer & Rubel, 2015). One such strategy may be psychological distancing: reducing one's perceived similarity or proximity to victims.

Lerner (1980) anticipated this possibility when he argued that people categorize injustices as occurring in either of two "worlds": one's own world versus that of distant and dissimilar others. In other words, one way people sustain belief in a just world is by organizing their experiences around the idea that, although innocent victims exist, they occupy a different space from one's own "just world." This resonates with the observation that spatially, temporally, or socially proximal injustices arouse stronger reactions than distant ones, even when the outcomes are similar (e.g., Dawtry et al., 2020; Kogut et al., 2018; Warner et al., 2012). Organizing experience around this "multiple worlds" distinction, by symbolically distancing innocent victims from the self, may help preserve belief in a just world in ways that may not require rejecting the victim.

This account suggests that psychological distance may serve a broader motivational function than previously recognized: not merely enabling victim derogation, but helping people maintain belief in a just world by holding injustice at a symbolic distance. In the following sections, we review supporting evidence from research on temporal and social distancing and explore theoretical frameworks that link psychological distance with perceived similarity. We then introduce the claim that social distancing from innocent victims by spatial distality—symbolically placing victims further from the self in visual space—may reflect a psychological process that helps preserve the illusion of a "rose garden," even when injustice is in plain sight.

Temporal Distancing From the Self

Support for this perspective comes from research on how people respond to threatening or unfavorable experiences involving the self, especially in how they represent those experiences across time. People perceive greater temporal distance from events involving unfavorable (vs. favorable) self-outcomes. For example, Ross and Wilson (2002, 2003) found that students reported the previous semester felt more distant when recalling their worst (vs. best) grade. Similarly, D'Argembeau and Van der Linden (2004, 2008) found that events were recalled or imagined with fewer sensorial and contextual details when they involved unfavorable (vs. favorable) past or future outcomes, and when a distant (vs. close) future event involved an unfavorable outcome. This suggests a positivity bias in *subjective* temporal distance: Events that are equally distant in calendar time may feel more distant if they are negative. This bias appeared only for self-related events and was stronger among those high in self-esteem, consistent with the idea that temporal distancing serves self-enhancement (D'Argembeau & Van der Linden, 2008; Ross & Wilson, 2002, 2003).

Other studies suggest that perceived temporal distance reflects not just valence but similarity to the present self. Gebauer et al. (2008) found that participants who were sad (happy) reported greater distance from past successes (failures). Recalling either event decreased (increased) self-esteem for sad (happy) participants, presumably because close-feeling failures threaten the current self, whereas distant successes evoke an unfavorable comparison to a better, dissimilar past (and vice versa for happy participants). Relatedly, Libby and Eibach (2011) found that focusing on the experience of an event (e.g., sensorial details) versus its similarity to the present (e.g., self-change) prompted first- versus third-person visual perspectives, regardless of valence. In one study, focusing on similarity increased perceived temporal distance. Other findings link third-person perspective to abstraction, reduced vividness, and increased psychological distance, alongside reduced perceived similarity and closeness to others (for a review, see Tausen et al., 2020).

This research suggest that temporal distance reflects not just objective time but subjective similarity between past events and the present self, with implications for managing threat and self-concept. We propose that a similar logic may govern how people psychologically distance both from others who suffer injustice and from past versions of themselves associated with unfair outcomes.

Social Distancing From Victims

Similarity and social closeness are closely linked (Heider, 1958; Tesser, 1988). People are more likely to like, interact with, affiliate with, and feel emotionally close to others who share their attributes (Curry & Dunbar, 2013; McPherson et al., 2001; Montoya et al., 2008). They also perceive greater interdependence between their own outcomes and those of close or similar others (Ayers et al., 2023; Laporte & Briers, 2019).

Perceived similarity can have positive consequences: Victims who share our values or group membership elicit more empathy and helping behavior than dissimilar victims (Batson et al., 1997; Cialdini et al., 1997; Levine et al., 2002; Levine & Thompson, 2004). Yet similarity can also heighten perceived vulnerability. When bad things happen to people like the self, the threat can feel more personally relevant (Hafer, 2000b; Pyszczynski et al., 1993, 1995; Schimel et al., 2000). People report greater distress and perceived injustice when confronted with

victims perceived as similar (e.g., Correia et al., 2007; Hafer, 2000a; Kogut & Ritov, 2011; Kogut et al., 2018; Novak & Lerner, 1968).

To protect belief in a just world, people may engage in social distancing, highlighting dissimilarities between the self and victims to reduce the implication that similar injustices could occur within their own "world." This distancing can involve reinterpreting either their own attributes or those of the victim to reduce perceived similarity and connectedness (e.g., Correia et al., 2012; Drout & Gaertner, 1994; Hafer, 2000b; Pyszczynski et al., 1993, 1995). For example, Drout and Gaertner (1994) found that female (but not male) students reported feeling less similar to a female student described as a rape victim (vs. a nonvictim).

Psychological Distance and Similarity

Taken together, these findings point to a broader insight: Experiences of distance and similarity are intertwined across multiple domains. People feel more distant from past or imagined selves when those selves seem dissimilar and they feel less interdependent or emotionally close to others who differ from them. Temporal distancing from unfavorable or dissimilar past selves, and social distancing from innocent victims, by reducing perceived similarity, may reflect shared psychological mechanisms.

Theoretical accounts provide a framework for understanding these links. According to conceptual metaphor theory (Lakoff & Johnson, 1980, 1999), abstract concepts such as similarity or valence are metaphorically grounded in physical experience. From this account, SIMILARITY = PROXIMITY is a foundational metaphor: Things that are similar are represented as spatially close, and vice versa. Although conceptual metaphor theory has been criticized for its breadth and testability (e.g., Bundgaard, 2019; Kövecses, 2008), the association between spatial proximity and similarity is empirically supported. People or objects presented closer together, or described as similar, are perceived as more alike or positioned closer in space, even without linguistic priming (Casasanto, 2008; Pauels et al., 2023; Winter & Matlock, 2013).

Construal level theory (Trope & Liberman, 2010) similarly posits that psychological distance—whether temporal, social, spatial, or hypothetical—is underpinned by common cognitive mechanisms. Neural evidence suggests that the same systems are engaged when people think across distance dimensions (Buckner & Carroll, 2007; Spreng et al., 2009; Tamir & Mitchell, 2011) and behavioral research shows implicit associations between distance types (Bar-Anan et al., 2007).

Similarity has been argued to be a core feature of mental representation (Roads & Love, 2024). It is necessarily involved in contemplating psychological distances: Thinking about past or hypothetical events involves contrasting them with the present (e.g., Gebauer et al., 2008), while social distance often hinges on perceived self–other similarity (e.g., Liviatan et al., 2008). Modifying distance on one dimension can shift perceptions of similarity on another, and may affect how vividly, concretely, or meaningfully a stimulus is experienced (e.g., Davis et al., 2011; Libby & Eibach, 2011; Yang et al., 2020).

From Distance to Justice: Integrating Similarity, Space, and the Just-World

These considerations have important implications for how people mentally represent and respond to innocent victims. Lerner's (1980) two worlds notion implies people are most concerned with injustices in their own psychological "world," while those involving distant and dissimilar others are less troubling. Insofar as people feel less similar, connected, and interdependent with—more socially distant from—victims represented further from the self, their plight may seem less relevant to one's own just-world. Representing innocent victims at greater distance may thus serve to mute feelings of injustice and protect belief in a just world.

This perspective echoes prior work linking psychological distancing to self-enhancement or existential motives (e.g., Ross & Wilson, 2002, 2003; Wakimoto, 2011; Yang et al., 2020), but extends it in two key ways: First, although people may distance from others' misfortunes due to self-enhancement (e.g., Cialdini et al., 1976) or general avoidance of negative stimuli (see the Study 4a introduction section), we argue that distancing from victims depends on perceived injustice rather than mere valence. That is, people should distance more from an undeserved (vs. deserved) outcome, even when the outcome itself is held constant, because undeserved outcomes are more threatening to just-world beliefs. This may also help explain findings where people's current mood shapes subjective temporal distance from past successes or failures (e.g., Gebauer et al., 2008): present unhappiness may feel more or less deserved depending on how past outcomes are evaluated (cf. Callan, Kay, & Dawtry, 2014; Wood et al., 2009).

Second, if psychological distance is multidimensional, and similarity is mentally represented spatially, then social distancing from victims may be reflected in, and reinforced by, simple spatial representations. Placing a victim symbolically further from the self in 2D space may reduce feelings of social closeness, and vice versa, even in the absence of "real-world" distance (e.g., geographical distance).

Overview of Current Research

The current research tested our hypotheses across multiple tasks and contexts, with each study designed to address different empirical and theoretical issues. In Studies 1a–1c, participants read about innocent victims who experienced just or unjust outcomes and were asked to spatially position a symbolic representation of themselves ("You") relative to the victim's name in a two-dimensional space, based on perceived value or personality similarity. These studies tested whether people spatially distance themselves more from victims of unjust than just outcomes, examined the robustness of the effect using both within- and between-subjects designs, and assessed its directionality with a neutral condition (Study 1c). Study 2 tested whether spatial distancing from innocent victims reflected a distinct response to injustice or could instead be explained by victim derogation or blame (Dawtry et al., 2020). Using a different spatial arrangement task, Study 3 tested whether social distancing from victims by spatial distality generalizes across tasks and whether it occurs more strongly for traits central to participants' self-concept, consistent with the idea that injustices in one's own "world" are more threatening (Lerner, 1980).

Studies 4a and 4b tested whether spatial distancing reflects perceived injustice rather than general avoidance tendencies: Study 4a manipulated victim innocence to examine whether the effect of injustice on distancing would be attenuated when victims were portrayed as morally bad (i.e., noninnocent), while Study 4b tested whether this manipulation influenced perceptions of injustice and whether spatial distancing corresponded to perceived injustice at the

scenario level. Studies 5a and 5b tested whether spatial proximity alone affects perceived self–other similarity (cf. Casasanto, 2008; Pauels et al., 2023; Winter & Matlock, 2013), with Study 5a focusing on personality traits and Study 5b on values. Studies 6a and 6b tested the reverse direction of this effect, asking whether the spatial closeness of another person to the self in a 2D space increases the perceived injustice of their suffering. Finally, Study 7 examined self-relevant experiences, testing whether people distance from their own past selves after recalling unfair (vs. fair) personal events and whether spatial distancing occurs above and beyond subjective and objective temporal distancing (cf. Ross & Wilson, 2002). Taken together, the studies further understanding of how social and spatial representations of self–other (dis)similarity shape responses to victimization.

Study 1a

In Study 1a, participants positioned a symbolic representation of themselves ("You") closer to or further from the names of victims (e.g., "Frankie") in a two-dimensional space, to reflect perceived value similarity. Each victim was described as having experienced either a just or unjust outcome. If psychological distancing helps preserve belief in a just world and if spatial and social distance are conceptually linked, we expected participants to place themselves further from victims who experienced unjust outcomes.

Method

Transparency and Openness

All data, materials, and analysis syntax are available at https://osf.io/6ygtd (Callan et al., 2025) and in the Supplemental Material. Analyses were performed using R (Version 4.4.3; R Core Team, 2024). The individual R packages used for analyses are referenced throughout the article where relevant and in the Supplemental Material. The required sample sizes were fixed ahead of data collection, but the final sample sizes were not completely pre-determined due to the unpredictability of excessive sign-ups within recruiting platforms, incomplete data, and removal of participants who failed attention checks. The study designs, sampling plans, and their analyses were preregistered for Studies 1c, 2, and 7 (https://aspredicted.org/84xt-tbnx.pdf; https://aspredicted.org/nm9j-kfs9.pdf; https://aspredicted.org/mr3v-876z.pdf). We present the studies thematically rather than chronologically. The research received favorable ethics opinions from committees at the University of Essex (Reference ETH2223-1129) and University of Bath (References 23-063, 23-082, 8733-9628, 1758-2187)

Participants

We recruited 101 participants from the United Kingdom at https://www.prolific.com/ (49 men, 51 women, 1 nonbinary; $M_{\text{age}} = 37.27$, $SD_{\text{age}} = 12.74$). A sensitivity power analysis indicated that this sample size provided 80% and 90% power to detect within-subject effect sizes (d_z) of approximately 0.28 and 0.33, respectively (two-tailed, $\alpha = .05$). In mixed-effects models, however, exact power is difficult to determine in advance, as it depends on effective degrees of freedom and the variability modeled.

Materials and Procedure

Participants were informed that the study concerned people's perceptions of physical closeness. Following an initial consent phase, participants were presented with six victimization scenarios, one at a time, in a random order. The scenarios were drawn from 12 victimization contexts that each ended in either a just or unjust outcome (comprising 24 scenarios in total; see Supplemental Materials). For example, one scenario read (the just and unjust outcome are presented in italics and bold, respectively):

> Frankie was crossing the road on the way to the supermarket. At the crossing, Frankie was hit by a drunk driver who ran through a red light. The drunk driver did not stop to help and continued driving on. Frankie was seriously injured and had to go to hospital to treat a fractured hip. *The next day the police identified the drunk driver, who was eventually sentenced to two years in prison.* [**The drunk driver was never found.**]

Participants reviewed three unjust and three just outcome scenarios; they never reviewed the same context twice.

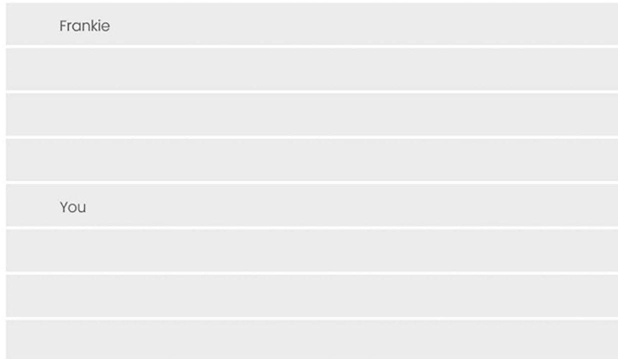
We developed a measure of psychological distancing where participants moved the word "You" closer to or further away from each victim's name on the computer screen in terms of their perceived valued (dis)similarity (cf. Callan et al., 2021). Specifically, after being provided with a definition of values ("abstract ideals that we tend to consider important") participants were informed that if they believed their values were like the values of the individual described in each scenario, then they should drag the word "You" closer to the victim's name. Conversely, if they thought their values were dissimilar to the victim's values, then they should drag the word "You" further away from the victim's name. There were seven positions that the word "You" could occupy (see Figure 1).

Prior to the main block of six scenarios, participants completed a generic practice trial using "You" and the name "Charlie" to practice.

Results

Spatial distances between the participant ("You") and the victim were fit with a linear mixed effects model using the lme4 package (Bates et al., 2015, Version 1.1-35.5) in R (R Core Team, 2024, Version 4.4.3). The model included a fixed effect for justice outcome (unjust vs. just, coded 1 and 0). We included random intercepts for participants and victimization contexts and random slopes by participants and by contexts for the effect of injustice. Across studies, random effects were uncorrelated due to issues with either model convergence or the software flagging the fitted models as being singular (when models converged, modeling correlated random effects yielded the same conclusions). We used Satterthwaite approximations to calculate p values and 95% confidence intervals (CIs) using the lmerTest package (Kuznetsova et al., 2017, Version 3.1-3). For fixed effects from mixed-effects analyses, we report both a generalized standardized effect size (d_G), scaled by the total model standard deviation (including variance from random intercepts, random slopes, and residual error), following Westfall et al. (2014), and a within-subjects standardized effect size (d_W), scaled by the residual variance alone. While d_G provides a conservative estimate that accounts for variability across subjects and contexts/scenarios, d_W reflects the magnitude of the effect relative to within-subject variability. As shown in Figure 2 (left panel), there was a statistically significant effect of

Figure 1
Example Trial for Studies 1a to 1c



Note. Each trial is scored from 1 ("*You*" *was placed next to the victim's name*) to 7 ("*You*" *was placed as far away from the victim's name as possible*), with higher values indicating greater psychological distancing by spatial proximity.

justice outcome on psychological distancing, B = 0.51, SE = 0.15, t(12.63) = 3.36, p = .005, 95% CI [0.18, 0.84], d_W = 0.39, d_G = 0.30, such that participants positioned themselves further away from the victims when the outcomes were unjust (vs. just).

Study 1b

Study 1b involved personality similarity instead of value similarity. The goal was to examine whether the Study 1a findings could be generalized to other attributes by which people can perceive similarity.

Method

Participants

We recruited 101 participants living in the United Kingdom at https://www.prolific.com/ (n = 56) and an undergraduate psychology participant pool (n = 45; 12 men, 87 women, two nonbinary; M_{age} = 32.87, SD_{age} = 14.35). This sample size gave 80% and 90% power to detect within-subject effect sizes of .28 and .33, respectively. Assuming the same model structure and precision as in Study 1a, it also provides approximately 87% power to detect at least the same effect in replication (two-tailed, α = .05).

Materials and Procedure

The procedure for Study 1b was similar to that for Study 1a except participants completed the spatial proximity task in terms of perceived personality (dis)similarity. Participants were provided with a definition of personality ("personality is defined as a combination of characteristics and qualities that form an individual's distinctive character") to guide their spatial positioning of "You" relative to the victims using the spatial positioning task used in Study 1a. Participants responded to six (three unjust, three just) of 24 scenarios in a random order (see Supplemental Materials).

Results

Spatial distances were fit with a linear mixed effects model as in Study 1a. Conceptually replicating Study 1a, there was a statistically significant effect of justice outcome on distancing, B = 0.70, SE = 0.17, t(182.09) = 4.21, p < .001, 95% CI [0.37, 1.02], d_W = 0.38, d_G = 0.34. such that participants positioned themselves further away from the victims in terms of perceived personality similarity when the outcomes were unjust (vs. just; see Figure 2, right panel).

Study 1c

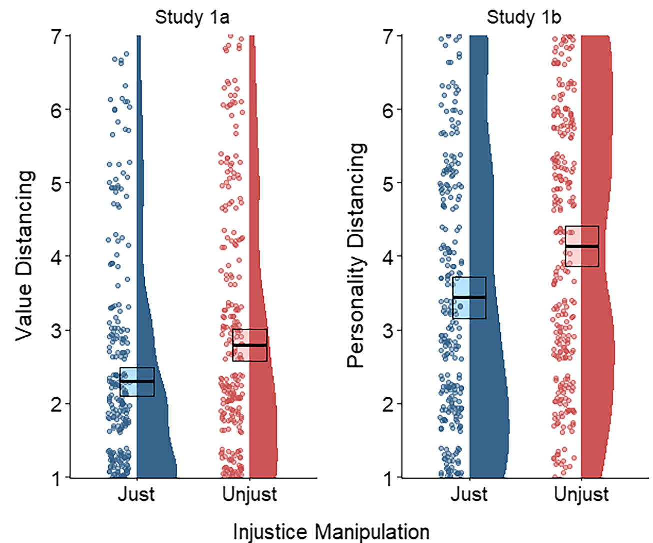
Study 1c had two aims to (1) replicate the effects from Studies 1a and 1b using a between-subjects design, which reduces carryover effects and demand characteristics; and (2) assess directionality by including a neutral condition; specifically, whether participants distance themselves from victims experiencing unjust outcomes or approach those experiencing just outcomes.

Method

Participants

Following our preregistered sampling plan (https://aspredicted.org/84xt-tbnx.pdf), we initially recruited 930 participants living in the United Kingdom at https://www.prolific.com/. We excluded 67 participants who failed the attention check; sampling continued until 900 participants passed the check (384 men, 510 women, 6 nonbinary; M_{age} = 44.33, SD_{age} = 14.27). This sample size gave 80%

Figure 2
The Effect of Justice Outcome on Social Distancing by Spatial Distancing (Studies 1a and 2a)



Note. Study 1a is shown in the left panel and Study 1b is shown the right panel. The black horizontal lines show mean distancing within conditions and the rectangles show 95% confidence intervals for the means. See the online article for the color version of this figure.

and 90% power to detect effect sizes (Cohen's *f*) of .10 and .12, respectively (two-tailed, α = .05).

Materials and Procedure

The procedure for Study 1c was similar to that used in Study 1b. Participants reviewed and responded to a single scenario involving Jamie, who has a savings account with an online bank. In the neutral condition, participants simply learned that Jamie had a savings account. In the unjust outcome condition, participants read that Jamie's account was hacked, resulting in the loss of all savings, with the bank unable to track the hacker or reimburse the funds. In the just outcome condition, participants learned that although Jamie's account was hacked, the bank was able to recover the stolen money.

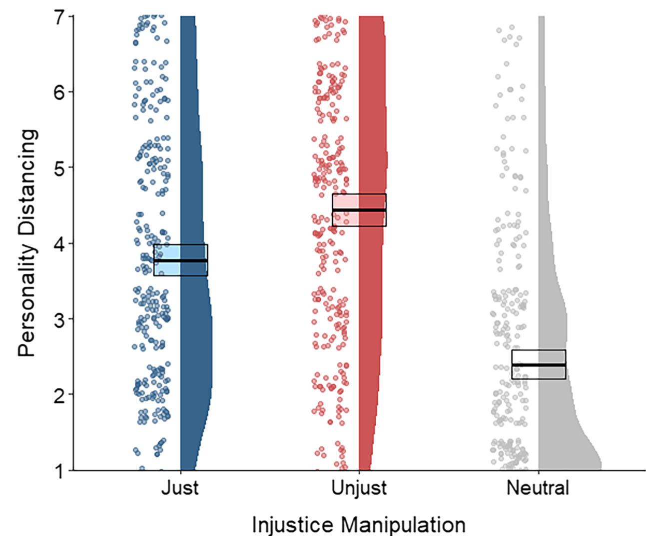
After reading the scenario, participants completed the spatial proximity task measuring perceived personality (dis)similarity by spatial distality used in Study 1b. They were provided with a definition of "personality" to guide their spatial positioning of "You" relative to "Jamie." As in Studies 1a and 1b, participants first completed a practice trial before moving on to the main task. Finally, before reporting their age and gender, participants completed an attention check ("For this question, please answer by selecting the 'strongly disagree' option below").

Results

Following our preregistered analysis plan, spatial distances were analyzed using a one-way Welch's analysis of variance. Shown in Figure 3, analyses revealed a significant omnibus effect of justice outcome on spatial distancing, Welch's $F(2, 596.04) = 108.84$, $p < .001$, $\omega^2 = .19$, 95% CI [0.14, 0.23]. Follow-up Welch *t* tests revealed that there was greater spatial distancing on average in the just outcome condition than the neutral condition, $t(583.90) = 9.72$, $p < .001$, $d = 1.16$, and replicating our previous findings, greater distancing in the unjust outcome condition than the just condition, $t(596.89) = 4.38$, $p < .001$, $d = 0.36$. This pattern of results suggests a general distancing effect that increases with the severity of injustice. They do not support the idea that people psychologically approach individuals who experience just outcomes, because participants demonstrated greater spatial distancing following a just outcome compared with a neutral condition and this distancing was even more pronounced following an unjust outcome.

Figure 3

The Effect of Justice Outcome on Psychological Distancing via Spatial Distancing (Study 1c)



Note. The black horizontal lines show mean distancing within conditions and the rectangles show 95% confidence intervals for the means. See the online article for the color version of this figure.

Study 2

Studies 1a–1c provide evidence that participants socially distance themselves more from victims of unjust compared with just outcomes. However, these findings leave open an important alternative explanation: Distancing may simply reflect victim blaming or derogation (Dawtry et al., 2020). In other words, rather than constituting a distinct response to injustice, social distancing by spatial distality could be a by-product of perceiving victims as less valuable or more blameworthy. Supporting this possibility, people tend to judge dislikable others as more dissimilar to themselves than likable others (e.g., Collisson & Howell, 2014).

Study 2 was designed to address this potential confound. Using the same scenarios as in Study 1b, a new sample of participants rated each victim's blameworthiness and personal value. This enabled us to test whether distancing is reducible to derogation or blame or whether it emerges independently of these traditional just-world defenses. This question is theoretically important because, as reviewed earlier, derogation and blame are not always reliable responses to injustice (Dawtry et al., 2020). Demonstrating that distancing occurs independently of derogation and blame would suggest it functions as an alternative strategy for maintaining just-world beliefs, one that does not depend on overtly negative evaluations of victims.

Method

Participants

Following our preregistered sampling plan (https://aspredicted.org/nm9j-kfs9.pdf), we initially recruited 110 participants living in the United Kingdom at https://www.prolific.com/. We excluded one participant who failed the attention check, resulting in $N = 109$ (33 men, 76 women; $M_{age} = 38.39$, $SD_{age} = 13.12$). This sample size gave 80% and 90% power to detect within subject effect sizes of .27 and .31, respectively (two-tailed, α = .05).

Materials and Procedure

The materials and procedures were identical to Study 1b, except that instead of completing the spatial distancing measure, participants rated the perceived blameworthiness and personal value of each victim. After reading each scenario, participants responded to two items, for example, "To what extent do you believe Charlie is to blame for their apartment block getting vandalised?" (1 = *not at all to blame*, 7 = *completely to blame*) and "How would you rate the

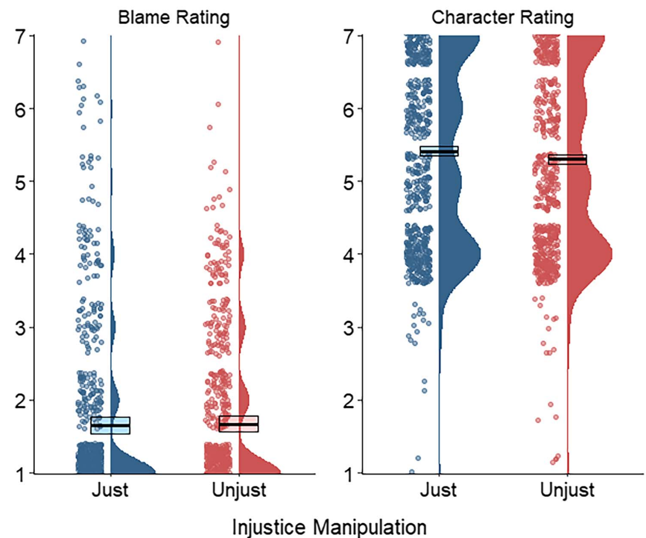
value of Charlie as a person?" (1 = *bad*, 7 = *good*). As in Study 1b, there were two versions of each victimization context (unjust vs. just outcome). Participants were randomly presented with 12 of the 24 possible scenarios, one per victimization context, ensuring that they encountered each context only once. An attention check scenario was also included, instructing participants to select *not at all to blame* (1) for the first item and *good* (7) for the second item.

Results

Following our preregistered analysis plan, ratings of blame and personal value were analyzed using separate linear mixed-effects models. Each model included a fixed effect for justice outcome (unjust vs. just, coded 1 and 0), random intercepts for participants and victimization contexts, and random slopes by participants and contexts for the effect of injustice. There was a significant effect of justice outcome on ratings of victims' personal value, $B = -0.11$, $SE = 0.04$, $t(16.16) = 2.61$, $p = .019$, 95% CI [−0.20, −0.02], $d_W = -0.17$, $d_G = -0.08$, such that victims were rated less positively when the outcome was unjust compared with just (see Figure 4, right panel). However, there was no significant effect of justice outcome on perceived blameworthiness, $B = 0.01$, $SE = 0.07$, $t(10.54) = 0.17$, $p = .87$, 95% CI [−0.14, 0.16], $d_W = 0.01$, $d_G = 0.01$ (see Figure 4, left panel).

To examine whether the effect of justice outcome on spatial distancing (Study 1b) could be explained by perceptions of blameworthiness or moral value (Study 2), we conducted a cross-study analysis. Specifically, using scenarios as the unit of analysis, we fit spatial distance scores (from Study 1b) with a linear mixed-effects model that included fixed effects for justice outcome (unjust = 0.5, just = −0.5), scenario-level blame ratings, and scenario-level character ratings. The model also included random intercepts for participants and contexts, and random slopes by participants and by contexts for the effects of injustice, blame, and character ratings. As shown in Table 1, only justice outcome significantly predicted spatial distancing; blame and character ratings were not uniquely associated with spatial distance. Thus, while participants devalued victims who experienced unjust outcomes, this response did not explain the spatial distancing effect, nor were blame or character ratings uniquely related to distancing. These findings imply that social distancing functions independently of derogation and blame, pointing to a distinct psychological strategy for maintaining belief in a just world by reducing perceived similarity to victims rather than devaluing them.

Figure 4
The Effect of Justice Outcome on Perceived Victim Blameworthiness and Character (Study 2)



Note. The black horizontal lines show mean blame and character ratings by condition and the rectangles show 95% confidence intervals for the means. See the online article for the color version of this figure.

Study 3

Study 3 differed to the previous studies in two important respects. First, we used a different spatial distancing task in which participants arranged *individual* trait pairs (e.g., "organized, efficient") in 2D space to represent a victim's personality characteristics nearer to or farther from a symbolic self. This allowed us to generalize our initial findings to a new task. Second, this task enabled us to test the hypothesis that psychological distancing from innocent victims occurs more strongly for traits central to participants' self-concept. Central and peripheral self-conceptions differ in their consequences for information processing and behavior (e.g., Markus, 1977; Rogers et al., 1977; Sedikides, 1995). For instance, negative social feedback about core self-aspects is recalled less often than feedback about peripheral aspects (Sedikides & Green, 2000), presumably because the latter is less threatening. If, as Lerner (1980) argued, people are primarily concerned with injustices that occur in their own "world," then attributes central to the self can be seen as defining that psychological world. Accordingly, people should be especially motivated to distance from victims on attributes that are more central (vs. peripheral) to their self-concept.

Method

Participants

We recruited 80 participants from the United Kingdom at https://www.prolific.com/ (27 men, 52 women, 1 other gender; $M_{age} = 40.42$, $SD_{age} = 14.14$). This sample size gave 80% and 90% power to detect within-subject effect sizes (Cohen's d_z) of .32 and .37, respectively (two-tailed, α = .05).

Materials and Procedure

Participants were informed that the study concerned people's perceptions of personality similarity. Following a consent phase, participants rated how characteristic 30 positive personality trait pairs

Table 1
Fixed Effect Estimates for Study 2 Scenario-Level Analysis

Predictor	Spatial distance			
	B [95% CI]	*t*	*df*	*p*
Injustice manipulation	0.75 [0.25, 1.25]	3.18	16.49	.006
Blame ratings	0.10 [−0.40, 0.61]	0.43	20.11	.671
Character ratings	0.44 [−2.07, 2.94]	0.37	16.59	.717

Note. Values in brackets show 95% CIs. CI = confidence interval.

were of them as a person (e.g., *bold, assertive*; *great, wonderful*; *organized, efficient*; *funny, amusing*; 1 = *extremely uncharacteristic of me* to 7 = *extremely characteristic of me*). Next, participants read the first of two victimization scenarios (involving a house fire and physical assault) that ended either in a just (fire brigade quickly put out the fire and the perpetrator was charged, respectively) or unjust (fire brigade arrived late and the perpetrator was not charged, respectively) outcome. Based on the spatial arrangement method developed by Goldstone (1994; see also Hout et al., 2013) and used to measure, for example, value (Coelho et al., 2019) and stereotype content (Koch et al., 2016) similarity, following the scenario, participants were presented with the same 30 personality trait pairs from the self-rating measure displayed on screen in a 3 × 10 grid contained within two overlapping circles (see Figure 5).

Participants were asked to spatially arrange the traits based on their impression of how similar they were to the victim from the scenario they just read. They were informed that the red dot in the center of the screen represented them and that proximity to the red dot indicated how similar they were to the victim—positioning a trait closer to the red dot ("You") meant they felt more similar to the victim on that trait (and vice versa). Participants had to move all the traits to progress the survey. A simple multiple-choice comprehension check question was included to ensure participants understood the task.

Next, participants were presented with the other victimization scenario and repeated the spatial arrangement task in relation to the victim presented therein. Participants therefore read two victimization scenarios and completed the spatial arrangement task twice (once for each victim). The order in which the just and unjust scenarios were presented was randomized between participants. If a participant was assigned to the house fire scenario involving an unjust outcome, then they reviewed the physical assault scenario involving a just outcome (or vice versa).

Results

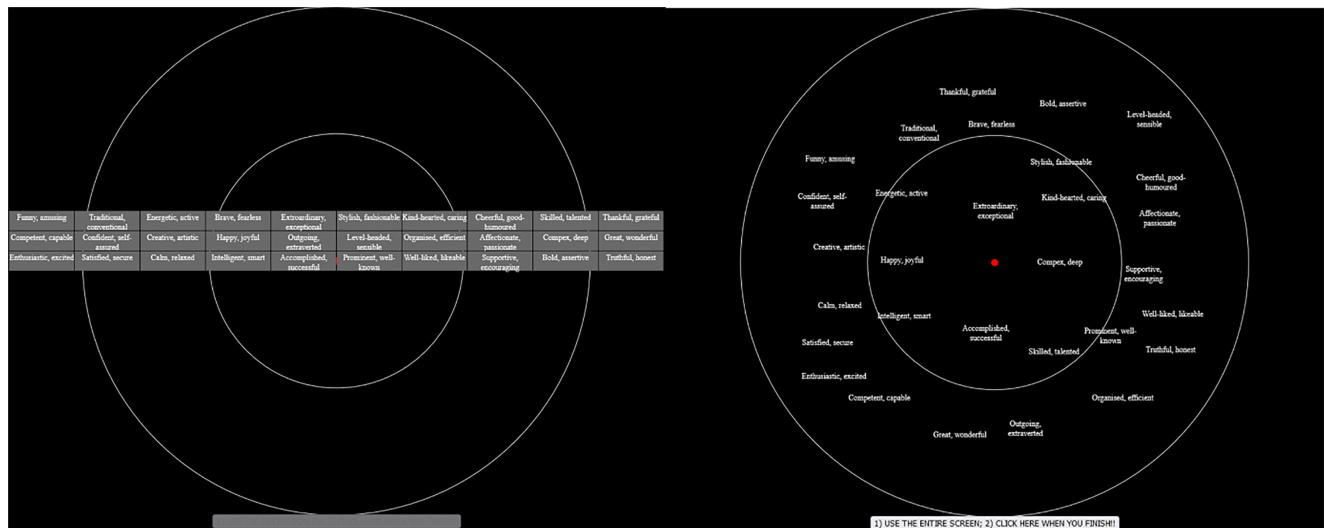
We calculated the absolute distance (d) between the red dot and the position of each trait pair from pixel coordinates using the following formula: $d = \sqrt{((x2 - x1)^2 + (y2 - y1)^2)}$. These distance scores were fit with a linear mixed effects model that included fixed effects for trait self-ratings (grand mean-centered), justice outcome (0.5 = unjust, −0.5 = just), and their cross-product interaction term. We included random intercepts for participants and traits and random slopes by participants and by traits for the effects of trait self-ratings, justice outcome, and the Trait Self-Ratings × Justice Outcome interaction. Shown in Figure 6, analyses revealed statistically significant main effects of trait self-ratings, $B = -16.61$, $SE = 2.60$, $t(83.91) = -6.39$, $p < .001$, 95% CI [−21.78, −11.44], and justice outcome, $B = 26.15$, $SE = 8.04$, $t(80.29) = 3.25$, $p = .002$, 95% CI [10.15, 42.15]. The effect of justice outcome on psychological distancing via spatial proximity was, however, significantly modulated by trait self-ratings, $B = 5.44$, $SE = 2.10$, $t(531.40) = 2.59$, $p = .010$, 95% CI [1.32, 9.56].

Follow-up simple effects analyses revealed that the effect of justice outcome on trait distancing was larger for traits that participants rated as more characteristic of them (at 1 *SD* above the mean), $B = 35.12$, $SE = 8.76$, $t(105.60) = 4.01$, $p < .001$, 95% CI [17.77, 52.48], $d_W = 0.35$, $d_G = 0.22$, than for traits that participants rated as less characteristic of them (at 1 *SD* below the mean), $B = 17.18$, $SE = 8.76$, $t(105.61) = 1.96$, $p = .052$, 95% CI [−0.18, 34.53], $d_W = 0.17$, $d_G = 0.11$.

Study 4a

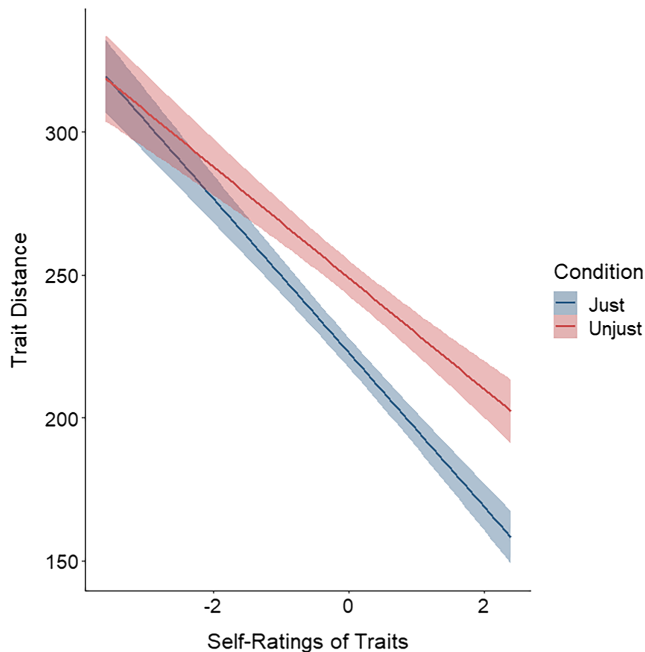
We assumed in our earlier studies that spatial distancing was driven by the injustice of the victim's outcome and served to

Figure 5
Spatial Arrangement Task Used in Study 3



Note. The left panel shows the initial grid layout of the trait pairs. The right panel shows an example of the final arrangement after participants repositioned the traits to reflect their perceived similarity to the victim, with distance from the center (red dot = "You") indicating less similarity. See the online article for the color version of this figure.

Figure 6
The Effect of Justice Outcome on Psychological Distancing by Spatial Proximity as a Function of Trait Self-Characterization



Note. Shaded areas around the fitted lines show 95% confidence intervals. See the online article for the color version of this figure.

protect belief in a just world. However, it may also reflect more basic avoidance processes. People experience stronger negative emotions toward victims who are spatially or socially close (Kogut & Ritov, 2011; Piliavin et al., 1969; Schiano Lomoriello et al., 2018), and negative arousal decreases with spatial distance from unpleasant stimuli (Codispoti & De Cesarei, 2007; Davis et al., 2011; Mühlberger et al., 2008). People also tend to approach positive stimuli and avoid negative ones (Cacioppo et al., 1993; Zhang et al., 2014). This experience of "pushing away" is so repeated and ingrained that people abstractly represent aversive stimuli further from the self, and simulate avoidant actions (Beilock & Holt, 2007; Wilson & Knoblich, 2005). Insofar as observing injustice is aversive, distancing may therefore reflect a general avoidance response.

If distancing instead reflects just-world protection, it should depend not only on suffering but also on whether that suffering is perceived as deserved. When victims are morally bad, their suffering is judged more deserved and less threatening to just-world beliefs, and just-world protective responses, such as victim derogation, are attenuated for such "noninnocent" victims (Correia & Vala, 2003; Dawtry et al., 2018, 2020). Accordingly, a just-world account predicts an interactive effect: injustice should increase distancing primarily for innocent victims, since their undeserved suffering most strongly threatens belief in a just world. By contrast, an avoidance account predicts additive main effects, such that distancing should be strongest when victims are both bad and suffer negative outcomes, because this represents the most aversive combination of negative features to avoid.

Study 4a employed the same task and scenarios as Study 1a. However, in addition to varying the injustice of outcomes, we varied whether victims performed bad deeds prior to experiencing the outcomes (i.e., were more or less innocent; cf. Dawtry et al., 2018, 2020). We predicted that the effect of injustice on spatial distancing would occur less strongly when victims performed bad deeds versus when they did not (i.e., an interactive pattern). If avoidance alone is driving distancing, we would expect to observe only main effects (i.e., the effects of the manipulations would be additive), presumably because avoidance should occur most strongly in situations involving more negative stimuli (i.e., involving bad people and negative outcomes).

Method

Participants

We recruited 110 participants through various social media channels to complete an online study as part of an undergraduate group research project (39 men, 68 women, one nonbinary, two preferred not to say; $M_{age} = 26.32$, $SD_{age} = 13.46$). Four additional participants were excluded for failing an attention check (see below). This sample size gave 80% and 90% power to detect within-subjects effect sizes (d_z) of .27 and .31, respectively (two-tailed, $\alpha = .05$).

Materials and Procedures

The materials and procedures were identical to Study 1a except that an additional 24 scenarios were created to vary the prior misdeeds of the protagonist who experienced either a just or unjust outcome (from the same 12 victimization contexts used in Study 1a). For example, in the "bad person" condition, the unjust outcome scenario shown in Study 1a read (the misdeed is presented in bold):

> **Frankie was rude to a shop assistant at the supermarket**. Whilst walking home, Frankie was hit by a drunk driver who ran through a red light. The drunk driver did not stop to help and continued driving on. Frankie was seriously injured and had to go to hospital to treat a fractured hip. The drunk driver was never found, and Frankie was never compensated.

In the "good" person condition, information about the victim's prior moral behavior was not included in the scenario. Thus, there were 4 versions of each victimization context that formed the conditions of a fully within 2 (justice outcome: unjust vs. just) × 2 (person: bad vs. unspecified/good) factorial design. Participants read and responded to 12 scenarios (3 per condition), one from each of the four possible scenarios by victimization context. We also included an attention check scenario where participants were instructed to drag "You" as far away as possible from the name "Jo" within the spatial distancing task.

Following each scenario, participants completed the same psychological distancing by spatial proximity task as in Study 1a (i.e., in terms of value dissimilarity). Scores could range from 1 (*psychologically close*) to 7 (*psychologically distant*).

Results

Distance scores were fit with a linear mixed effects model that included fixed effects for justice outcome (0.5 = unjust, −0.5 = just), moral value of the victim (0.5 = unspecified/good, −0.5 = bad) and their cross-product interaction term. We included random intercepts for participants and contexts and random slopes by participants and by contexts for the effects of justice outcome, moral value of the

victim, and the Justice Outcome × Moral Value interaction. Shown in Figure 7 (left panel), analyses revealed statistically significant main effects of justice outcome, $B = 0.51$, $SE = 0.12$, $t(22.02) = 4.26$, $p < .001$, 95% CI [0.26, 0.77], and moral value, $B = -1.77$, $SE = 0.19$, $t(20.47) = -9.38$, $p < .001$, 95% CI [−2.16, −1.38]. The Justice Outcome × Moral Value interaction effect was also statistically significant, $B = 0.66$, $SE = 0.26$, $t(16.47) = 2.57$, $p = .020$, 95% CI [0.12, 1.20].

Follow-up simple effects analyses by refitting the model using dummy coding revealed that the effect of justice outcome on value distancing was evident when the prior moral behavior of the victim was unspecified (cf. Studies 1a–1c), $B = 0.85$, $SE = 0.16$, $t(13.02) = 5.49$, $p < .001$, 95% CI [0.52, 1.19], $d_W = 0.54$, $d_G = 0.37$, but not when the victim performed a bad deed, $B = 0.19$, $SE = 0.14$, $t(40.34) = 1.36$, $p = .18$, 95% CI [−0.09, 0.48], $d_W = 0.12$, $d_G = 0.08$.

Study 4b

Study 4b had two key aims. First, it aimed to validate our earlier manipulations by testing whether participants reliably distinguish between just and unjust outcomes in terms of perceived injustice and whether this distinction is attenuated when victims are portrayed as morally bad. Second, by linking perceived injustice ratings (from Study 4b) with distancing responses to the same scenarios (from Study 4a), it aimed to test at the scenario level whether distancing depends specifically on perceptions of injustice rather than on general avoidance of negative stimuli.

Method

Participants

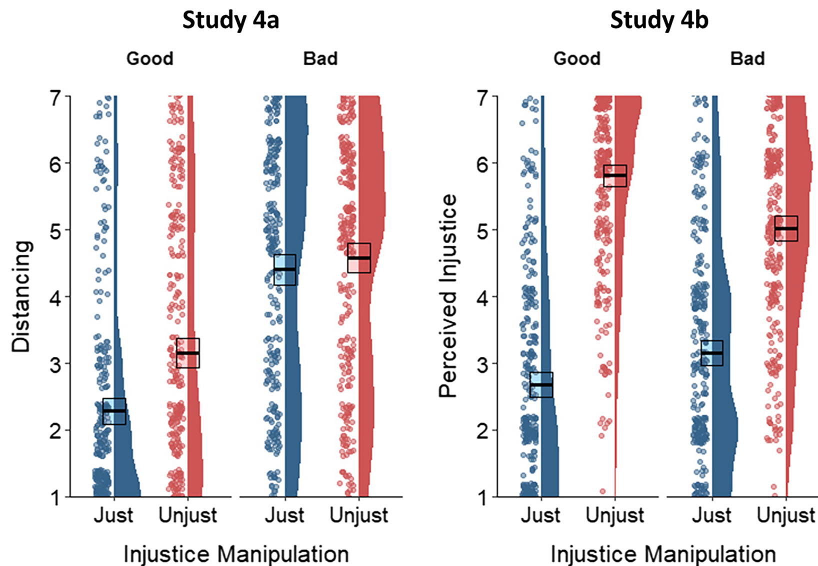
We recruited 107 participants through Prolific (36 men, 71 women; $M_{\text{age}} = 39.19$, $SD_{\text{age}} = 13.37$). Three additional participants were excluded for failing an attention check (see below). This sample size gave 80% and 90% power to detect effect sizes (Cohen's d_z) of .27 and .32, respectively (two-tailed, $\alpha = .05$).

Materials and Procedures

The materials and procedures were identical to Study 4a except that instead of completing the spatial distancing measure for each scenario, participants rated the perceived injustice and perceived unfairness of the outcome for the protagonist. Specifically, after reading each scenario, participants responded to two items: "The outcome of the events that happened to [Name of victim] was unjust" and "The outcome of the events that happened to [Name of victim] was unfair." Participants provided their ratings using a 1 (*strongly disagree*) to 7 (*strongly agree*) scale. The average of the two items for each scenario was used as the index of perceived injustice by scenario. As in Study 3a, there were 4 versions of each victimization context that formed the conditions of a fully within 2 (justice outcome: unjust vs. just) × 2 (person: bad vs. unspecified/good) factorial design. Participants read and responded to 12 scenarios (3 per condition), one from each of the four possible scenarios by victimization context. We also included an attention check scenario where participants were instructed "To check you're paying attention, we would like you to select strongly

Figure 7

The Effect of Justice Outcome on Psychological Distancing and Perceived Injustice as a Function of the Moral Behavior of the Victim



Note. The effect of justice outcome on psychological distancing (left panel; Study 4a) and perceived injustice (right panel; Study 4b) as a function of the moral character of the protagonist. The black horizontal lines show mean distancing within conditions and the rectangles show 95% confidence intervals for the means. See the online article for the color version of this figure.

disagree for the first question below, and select strongly agree for the second question."

Results

Ratings of perceived injustice of the outcome were fit with a linear mixed effects model that included fixed effects for justice outcome (0.5 = unjust, −0.5 = just), moral value of the victim (0.5 = unspecified/good, −0.5 = bad) and their cross-product interaction term. We included random intercepts for participants and contexts and random slopes by participants and by contexts for the effects of justice outcome, moral value of the victim, and the Justice Outcome × Moral Value interaction. Shown in Figure 7 (right panel), analyses revealed a statistically significant main effect of justice outcome, $B = 2.50$, $SE = 0.20$, $t(18.89) = 12.63$, $p < .001$, 95% CI [2.09, 2.91], but not of moral value, $B = 0.16$, $SE = 0.12$, $t(10.19) = 1.36$, $p = .20$, 95% CI [−0.10, 0.43]. The Justice Outcome × Moral Value interaction effect was statistically significant, $B = 1.28$, $SE = 0.17$, $t(9.17) = 7.43$, $p < .001$, 95% CI [0.89, 1.67].

Follow-up simple effects analyses that refitted the model using dummy coding revealed that the effect of justice outcome on perceived injustice was larger when the prior moral behavior of the victim was unspecified, $B = 3.14$, $SE = 0.22$, $t(15.95) = 14.49$, $p < .001$, 95% CI [2.68, 3.60], $d_W = 2.49$, $d_G = 1.64$, than when the victim performed a bad deed, $B = 1.86$, $SE = 0.21$, $t(22.74) = 8.82$, $p < .001$, 95% CI [1.42, 2.30], $d_W = 1.47$, $d_G = 0.99$.

By Scenario Analyses

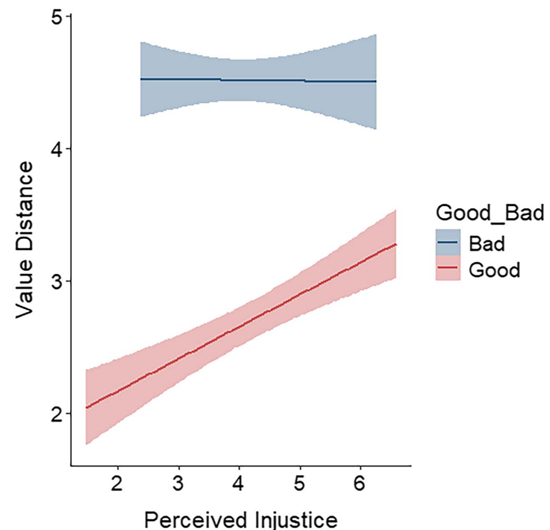
Having a separate group of participants complete the psychological distancing by spatial proximity task (Study 4a) and provide ratings of perceived injustice (Study 4b) across the same scenarios allowed us to test the association between *perceived* injustice and psychological distancing by the moral value of the victim at the level of the scenarios. Specifically, using scenarios as the basic unit of analysis, we fit spatial distance scores (from Study 3a) with a linear mixed effects model that included fixed effects for perceived injustice (across ratings by scenario from Study 4b), moral value of the victim (0.5 = unspecified/good, −0.5 = bad) and their cross-product interaction term. We included random intercepts for participants and contexts and random slopes by participants and by contexts for the effects of perceived injustice, moral value of the victim, and the Perceived Injustice × Moral Value interaction. Corroborating the results of Study 4a, analyses revealed a statistically significant Perceived Injustice × Moral Value interaction effect, $B = 0.19$, $SE = 0.08$, $t(49.95) = 2.30$, $p = .026$, 95% CI [0.02, 0.36]. Shown in Figure 8, simple slopes analyses revealed that the scenarios that were rated as involving an outcome that was more unfair were associated with greater psychological distancing by spatial proximity when the victim was innocent, $B = 0.26$, $SE = 0.04$, $t(504.72) = 5.79$, $p < .001$, 95% CI [0.17, 0.34], but not when the victim was bad, $B = 0.08$, $SE = 0.06$, $t(798.80) = 1.20$, $p = .23$, 95% CI [−0.05, 0.21]. Put differently, perceived injustice was only relevant to psychological distancing for contexts where the victim was innocent (vs. non- or less innocent).

Study 5a

Across our earlier studies, we assumed that participants were distancing from victims because, consistent with the SIMILARITY = PROXIMITY metaphor (e.g., Winter & Matlock, 2013), they equated spatial and social distance. This assumption, however, has not yet been directly tested. Studies 5a and 5b therefore aimed to validate this link by examining whether spatial proximity alone influences perceived self–other similarity. In Study 5a, participants viewed images in which trait pairs representing unspecified others were positioned either near to or far from a symbolic self in 2D space (cf. Study 3). In Study 5b, participants viewed images of different initials representing others' value profiles arranged either near or far from a symbolic self within a circle (cf. Study 1a). In both studies, participants rated the similarity of these others to themselves. If spatial distance maps onto social distance, participants should perceive others positioned farther from the self as more dissimilar in personality (Study 5a) and values (Study 5b).

Figure 8

The Relationship Between Scenario-Level Perceived Injustice and Psychological Distancing as a Function of the Moral Behavior of the Victim



Note. The relationship between scenario-level perceived injustice and psychological distancing as a function of the moral character of the protagonist. See the online article for the color version of this figure.

Method

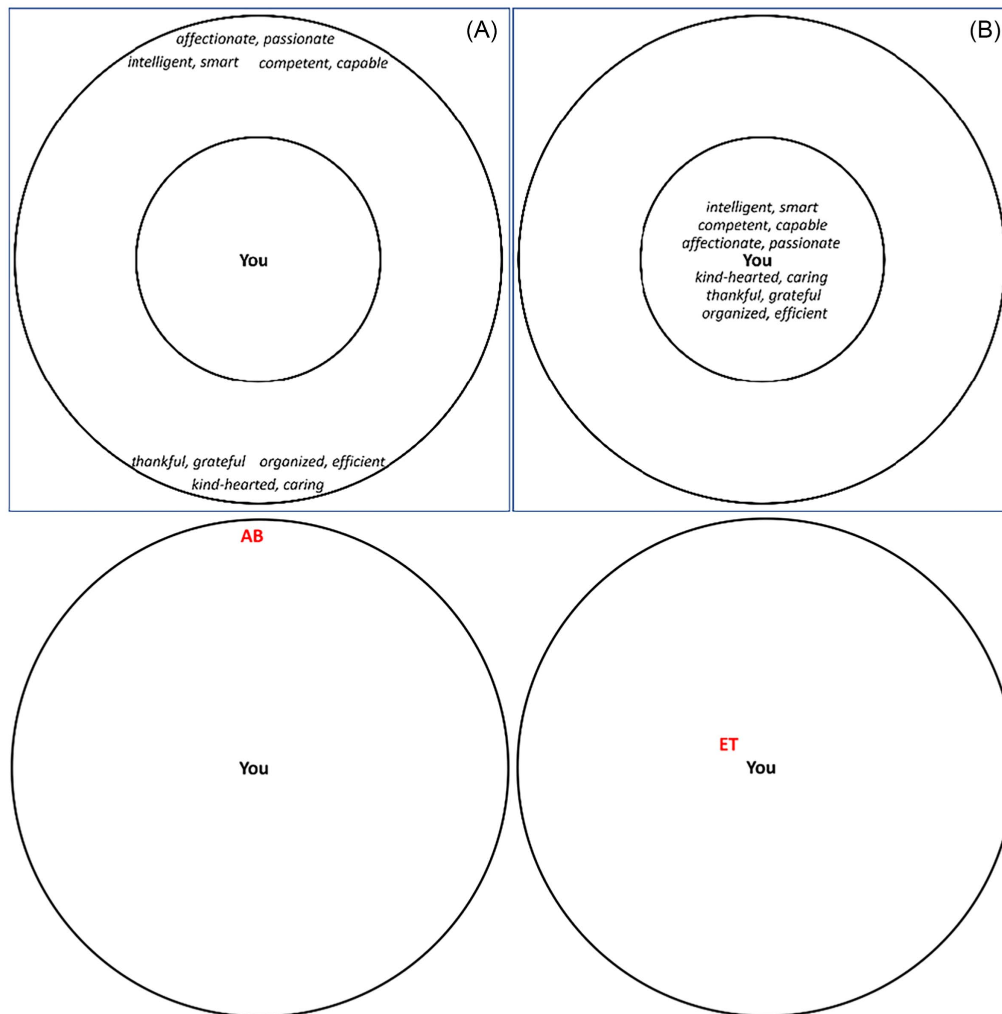
Participants

We recruited 200 participants from the United States of America or United Kingdom through Prolific (96 men, 102 women, 1 nonbinary, 1 preferred not to say; $M_{age} = 40.06$, $SD_{age} = 13.21$). This sample size gave 80% and 90% power to detect effect sizes (d_z) of .20 and .23, respectively (two-tailed, $\alpha = .05$).

Materials and Procedures

Participants completed the study after responding to questions for a separate project on dispositional mindfulness. Participants were presented with two images, A and B (see Figure 9, top section). At the center of each image was the word "You" within an inner circle. Participants were told to think of the word "You" as representing a

Figure 9
Example Stimuli for Studies 5a and 5b



Note. The top panel shows an example stimulus from Study 5a. The bottom panel shows an example stimulus for Study 5b. See the online article for the color version of this figure.

summary of their own personality characteristics. Arranged in space around the word "You" were different personality traits. Participants were told that these traits reflect the personality characteristics of two different people, Person A and Person B. The traits in one image were spatially arranged closer to "You" and the traits in the other image were arranged farther away from "You."

Participants were asked to rate the degree to which they felt more similar to Person A versus Person B in terms of their own personality characteristics using a slider scale. Specifically, they were told, "If you feel more similar to Person A, then move the slider further to the left. If you feel more similar to Person B, then move the slider further to the right." Whether image A or image B was on the left or right was counterbalanced between participants, and responses were scored on a scale ranging from −50 (spatially distant traits more similar) to +50 (spatially close traits more similar).

Results

Shown in Figure 10 (left panel), a one sample *t* test revealed that participants perceived the person whose traits were arranged closer (vs. farther) in space to "You" as more similar in terms of personality, $t(199) = 6.87$, $p < .001$, $d_z = 0.49$, 95% CI.

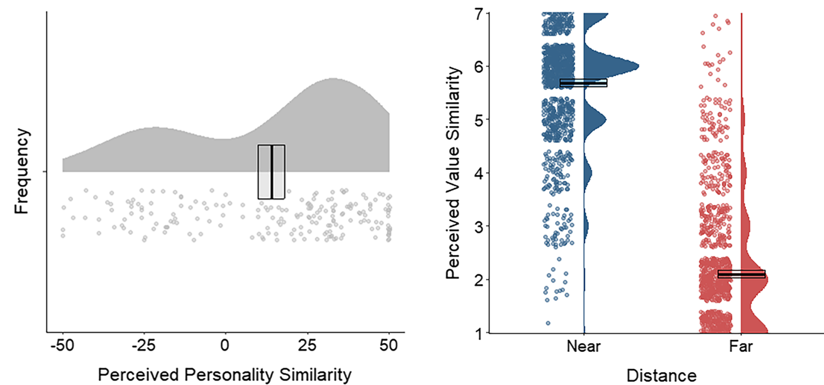
Study 5b

Method

Participants

We recruited 402 participants from the United States of America or United Kingdom through Prolific (198 men, 200 women, two nonbinary, one preferred not to say, one unreported; $M_{\text{age}} = 40.15$, $SD_{\text{age}} = 12.39$). This sample size gave 80% and 90% power to

Figure 10
Perceived Personality Similarity and Value Similarity by Spatial Proximity



Note. Perceived personality similarity (Study 5a, left panel) and perceived value similarity (Study 5b, right panel) by spatial proximity. See the online article for the color version of this figure.

detect effect sizes (Cohen's d_z) of .14 and .16, respectively (two-tailed, $\alpha = .05$).

Materials and Procedures

Like Study 5a, participants completed Study 5b after responding to questions for a separate study on dispositional mindfulness and personal relative deprivation. Participants first completed the Short Schwartz Values Survey (Lindeman & Verkasalo, 2005) to create the impression that we were forming their overall value profile. This questionnaire involves rating the personal importance of several values, e.g., "ACHIEVEMENT (success, capability, ambition, influence on people and events)." They were then informed that, one at a time, they would see several images of a circle. At the center of each circle was the word "You" and arranged in space within the circle were the initials (e.g., RS for Riley Smith) of another person (see Figure 9, bottom section). Participants were told that the "initials are representative of the values profiles of other people (i.e., their principles or standards of behavior, as well as what they think is important in life)." Participants responded to six different images presented in a random order, three where the initials of the other individuals were arranged close to "You" and three where they were arranged far from "You" (see Figure 9 for two representative images). The images were drawn from a larger set of 48 images (24 near, 24 far).

For each image, participants rated the degree to which they felt their values were similar to the values of the individuals shown in the images (e.g., "Please rate the degree to which you feel your values are similar to AB's values") using a scale ranging from 1 (*not at all similar*) to 7 (*highly similar*).

Results

Similarity ratings were fit with a linear mixed effects model that included a fixed effect for spatial distance of the initials from "You" (near vs. far, coded 0.5 and −.50), random intercepts for participants and other individuals/initials (n = 24) and random slopes by participants and by other individuals for the effect of spatial distance. Shown in Figure 10 (right panel), analyses revealed that the spatially close individuals were rated as more similar in terms of values than the spatially distant individuals, $B = 3.59$, $SE = 0.10$, $t(109.58) = 37.28$, $p < .001$, 95% CI [3.39, 3.78], $d_W = 5.41$, $d_G = 2.02$.

Study 6a

Our earlier studies found that observing an injustice can lead people to socially distance from victims through spatial distancing. Having established that spatial proximity corresponds to psychological closeness (Studies 5a and 5b), Studies 6a and 6b tested the reverse direction: whether spatial proximity shapes perceptions of injustice. From a just-world perspective, justice threats should be most salient when they occur within one's own psychological "world" (Lerner, 1980). If spatial distance serves as a metaphor for social distance, then victims who are spatially close to the self should evoke stronger justice concerns than those who are distant.

In both studies, participants viewed two images: One depicting another person's initials close to the self and one depicting them farther away in 2D space. They then learned that both individuals experienced the same negative event and rated which outcome seemed more unfair. We predicted that participants would judge the event as more unfair when it happened to the spatially close other.

Method

Participants

We recruited 200 participants from the United Kingdom through Prolific (99 men, 99 women, two unreported; $M_{age} = 41.60$, $SD_{age} = 14.11$). This sample size gave 80% and 90% power to detect effect sizes (Cohen's d_z) of .20 and .23, respectively (two-tailed, $\alpha = .05$).

Materials and Procedures

Participants first completed the Short Schwartz Values Survey (Lindeman & Verkasalo, 2005). They were then told that they would

see two circles next to each other with the word "You" at the center of each circle. Arranged in space within the circle were different initials. Participants were told that initials were representative of the values profiles of other people. Like shown in the bottom section of Figure 9, one image had the initials RD positioned near the edge of the circle (i.e., far from "You"); the other image had the initials AG positioned near the center of the circle (i.e., close to "You"). Whether participants viewed the near image on the left or right was counterbalanced between participants.

As a manipulation check, participants were asked to rate the degree to which they felt their values were similar to RD's values versus AG's values. They did so using a slider scale ranging from "I feel more similar to RD" on the left to "I feel more similar to AG" on the right (whether RD appeared on the left or right of the scale was also counterbalanced). The measured was scored from 1 (*feel more similar to the spatially distant person*) to 100 (*feel more similar to the spatially close person*).

Next, participants read a brief description of an event involving RD and AG:

> After saving up for many months, AG and RD went on holiday with friends. Upon landing at their destination, their luggage was missing. They reported it to the airline. However, the airline was unable to locate their luggage for the duration of the holiday, leaving AG and RD to spend their holiday money on replacement clothes and items.

They were then asked to rate the relative unfairness of the event for AG and RD using an 8-point bipolar scale. Specifically, they were informed that

> If you feel that what happened to RD was more unfair than what happened to AG, then select an option further to the left. If you feel that what happened to AG was more unfair than what happened to RD, then select an option further to the right. [whether RD was on the right or left of the scale was counterbalanced between participants]

The measure was scored from 1 (*what happened to the spatially distant person was more unfair*) to 8 (*what happened to the spatially close person was more unfair*).

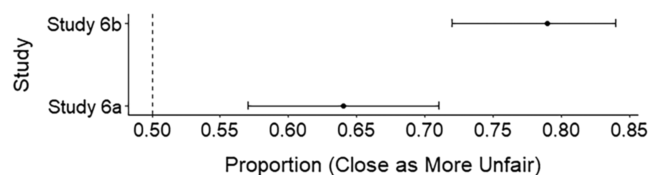
Results

Conceptually replicating Studies 5a and 5b, a one sample t test revealed that participants perceived the person whose initials were arranged closer (vs. farther) in space to "You" as more similar in terms of values ($M = 78.98$, $SD = 24.18$; test value = 50.5), $t(191) = 16.33$, $p < .001$, 95% CI [75.54, 82.43], $d_z = 1.18$.

Participants perceived what happened to the person whose initials were arranged closer (vs. farther) in space to "You" as more unfair ($M = 4.64$, $SD = 0.73$; test value = 4.5), $t(198) = 2.77$, $p = .006$, 95% CI [4.54, 4.75], $d_z = 0.20$. Most participants selected an option either side of the midpoint (95%), suggesting that participants were largely treating the measure in binary terms. As a robustness check, we categorized responses as either choosing what happened to the near or far individual as more unfair and performed a one-sample proportions test. Shown in Figure 11, statistically significantly more participants chose that what happened to the near (vs. far) individual was more unfair (64%, test value = 50.5%), $\chi^2(1) = 15.76$, $p < .001$, 95% CI [57%, 71%].

Figure 11

Perceived Injustice by Spatial Proximity



Note. Error bars represent 95% confidence intervals.

Study 6b

Method

Participants

We recruited 200 participants from the United Kingdom through Prolific (97 men, 98 women, two nonbinary, two preferred not to say, one unreported; $M_{age} = 42.72$, $SD_{age} = 14.26$). This sample size gave 80% and 90% power to detect effect sizes (difference from constant proportion) of .10 and .12, respectively (two-tailed, $\alpha = .05$, test value = 50.50%).

Materials and Procedures

The materials and procedure were identical to Study 6a except that participants did not first provide ratings of perceived similarity, the scenario changed, and participants rated the relative unfairness of the event using a binary option scale. The scenario in Study 6b read,

> Whilst driving home from the cinema, RD and AG were hit by a drunk driver who ran through a red light. The drunk driver fled the scene. Both RD and AG were injured in the crash and had to go to hospital for treatment.

After reviewing the scenario, participants read,

> Using the options below, please indicate the relative unfairness of what happened to RD and AG. If you believe that what happened to RD was more unfair, then select the option on the left. If you believe that what happened to AG was more unfair, then select the option on the right. [whether RD was on the left or right was counterbalanced, as in Study 6a]

Results

Replicating Study 6a using a different scenario and a binary option measure, significantly more participants chose that what happened to the near (vs. far) individual was more unfair (79%, test value = 50%), $\chi^2(1) = 65.31$, $p < .001$, 95% CI [72%, 84%] (see Figure 11).

Study 7

Study 7 tested whether social distancing by spatial distality also emerges when people reflect on real-life injustices involving the self. Just-world theory holds that beliefs about deservingness apply equally to self and others, such that one's own life, like others', is seen as governed by deservingness (Lerner, 1980). Supporting this

view, people's deservingness judgments and justice reasoning are often similar for self and others (e.g., Callan et al., 2009; Callan, Kay, & Dawtry, 2014; Harvey & Callan, 2014). To test whether the distancing effect we observed in our previous studies extends to the self, participants recalled fair and unfair personal experiences and completed the same spatial distancing task as in Study 1a, this time comparing their current self with their past self in terms of value similarity. An alternative possibility, however, is that spatial distancing simply reflects subjective or objective *temporal* distancing from one's past self. As noted, people often psychologically distance from past negative events as a form of self-enhancement (Ross & Wilson, 2002). To address this, we examined whether event type (fair vs. unfair) predicted distancing over and above ratings of both subjective and objective temporal distance.

Method

Participants

Following our preregistered sampling plan (https://aspredicted.org/mr3v-876z.pdf), we initially recruited 370 participants living in the United States at https://www.prolific.com/. We excluded 17 participants who failed the attention check. Sampling continued until we had at least 360 participants who passed the check (final N = 361; 152 men, 201 women, eight nonbinary; $M_{\text{age}} = 38.16$, $SD_{\text{age}} = 13.19$). This sample size gave 80% and 90% power to detect within-subject effect sizes of .15 and .17, respectively (two-tailed, $\alpha = .05$).

Materials and Procedure

The procedure for Study 7 was similar to that of Studies 1a and 1b, except participants completed the spatial proximity task in relation to their current self versus past self in terms of value similarity, and in response to recalling personal experiences of fairness and unfairness. In a randomly assigned order, participants recalled and briefly described one event in which they felt they had been treated unfairly and one in which they felt they had been treated fairly. After recalling each event, they completed the spatial distancing measure used in Study 1a by positioning the phrase "My Current Self" closer to or farther from "My Self at the Time of This Event" along a linear 2D scale, to indicate the perceived similarity or dissimilarity in the values they held at the time of the event. Values were again defined for participants as "abstract ideals that serve as important guiding principles in life." Each trial was scored from 1 (*my current self placed next to my self at the time of this event*) to 7 (*my current self placed as far away as possible*), with higher scores indicating greater psychological distancing from one's past self in terms of values.

After the spatial task for each event, participants completed two temporal distance measures. Subjective distance was assessed with the item: "Thinking about the event you just described, how far away in time does it feel to you now?" (1 = *it feels like it just happened*, 7 = *it feels like it happened a very long time ago*; cf. Ross & Wilson, 2002). Objective distance (scored in years) was assessed with the open-ended item: "How long ago did this event happen (in years and/or months)?"

To ensure attentiveness, participants completed an attention check: "Please answer by selecting the 'It feels like it happened a very long time ago' option." The study began with a practice trial to familiarize participants with the spatial task.

Results

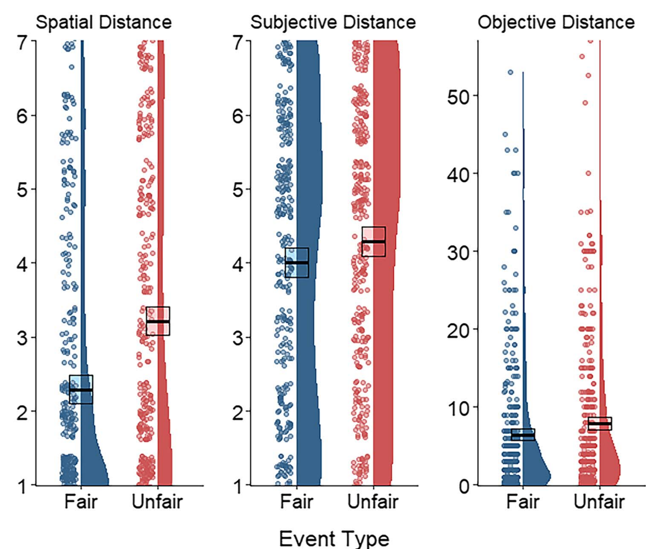
Following our preregistered analysis plan, the effects of event type (unfair vs. fair) on spatial distances, subjective temporal distances, and objective temporal distances were analyzed using paired-samples t tests. As shown in Figure 12, and conceptually replicating our earlier findings involving injustices experienced by others, participants positioned a symbolic representation of their current self farther from their past self when reflecting on a personally unfair (vs. fair) event, $t(360) = 6.73$, $p < .001$, mean difference = 0.93, 95% CI [0.65, 1.20], $d_z = 0.35$. Participants also tended to recall unfair events as more temporally distant, both subjectively, $t(360) = 2.03$, $p = .04$, mean difference = 0.29, 95% CI [0.01, 0.57], $d_z = 0.11$, and objectively, $t(349) = 2.66$, $p = .008$, mean difference = 1.46, 95% CI [0.38, 2.55], $d_z = 0.14$.

To assess whether subjective and/or objective temporal distance accounted for the effect of event type on spatial distancing, spatial distancing scores were fit using a linear mixed-effects model with the lme4 package in R. The model included fixed effects for justice outcome (unfair vs. fair, coded as 0.5 and −0.5), subjective temporal distance, and objective temporal distance, along with random intercepts for participants. As shown in Table 2, all three predictors were significant: participants placed their current self spatially farther from their past self following unfair (vs. fair) events, and although greater subjective and objective temporal distance were also associated with increased spatial distancing, the effect of event type remained largely unchanged, suggesting it was not meaningfully confounded by temporal distance.

Additional, exploratory analyses using the *mediation* package in R (Tingley et al., 2014) revealed that the effect of event type on subjective temporal distance was mediated by objective temporal distance, indirect effect = 0.14, 95% Monte Carlo CI [0.03, 0.25], $p = .008$; direct effect = 0.17, 95% Monte Carlo CI [−0.08, 0.42], $p = .19$.

Figure 12

The Effect of Recalled Event Type on Psychological and Temporal Distancing



Note. See the online article for the color version of this figure.

Table 2
Effects of Event Type and Temporal Distance on Spatial Value Distancing (Study 7)

Predictor	Spatial value distance			
	B [95% CI]	*t*	*df*	*p*
Event type (0.5 = unfair, −0.5 = fair)	0.82 [0.57, 1.07]	6.46	349.00	<.001
Subjective temporal distance	0.28 [0.20, 0.36]	7.28	701.84	<.001
Objective temporal distance	0.02 [0.01, 0.04]	2.54	663.66	.01

Note. 95% CIs are shown in brackets. CI = confidence interval.

General Discussion

Research inspired by just world theory has largely focused on how injustice can lead observers to derogate or blame the victim(s) (Ellard et al., 2016; Hafer & Bègue, 2005). This focus on victim rejection has limited our theoretical understanding of the ways that, returning to Lerner's analogy, people come to terms with the fact that they do not live in a "rose garden." We found that, at least in Western cultures (see Table 3 for a summary of limitations), social distancing from innocent victims is one way people respond to episodes of injustice, and they do so symbolically by spatial distancing.

In Studies 1a and 1b, participants placed a symbolic self-representation further from the names of innocent victims in 2D space when the victims experienced unjust (vs. just) outcomes, indicating reduced perceived similarity. Study 1c found that participants distanced themselves more after a just outcome than a neutral one, and more still after an unjust outcome, suggesting a general distancing effect that scales with the injustice of the outcome. Study 2 showed this effect persisted even when controlling for victim derogation and blame.

Study 3 used a different spatial arrangement task, finding that participants placed a victim's traits further from the self when victims experienced unjust (vs. just) outcomes and this effect was more pronounced for traits central to the self. Studies 4a and 4b found that distancing occurred only when victims were innocent: Unjust outcomes elicited greater distancing (Study 4a) and were perceived as more unjust (Study 4b) when the victim was innocent, with perceived injustice predicting distancing only for innocent victims.

Studies 5a and 5b validated the assumption that spatial proximity reflects social closeness: Participants rated others as more similar when their traits or initials were positioned nearer the self. Studies 6a and 6b found that the same event seemed more unjust when it happened to a victim arranged closer to the self. Finally, Study 7 found that participants distanced their current self from their past self more when recalling unfair (vs. fair) personal experiences. This effect held while controlling for both subjective and objective time, suggesting that distancing in response to unfairness extends to the self and is not simply a function of passing time.

Theoretical and Methodological Contributions

These studies highlight a subtle and potentially more psychologically palatable way of maintaining belief in a just world than the blaming or derogation of victims that has dominated past research (Callan & Ellard, 2010). Indeed, recent research suggests that victim derogation occurs only in limited circumstances, such as when the context is emotionally engaging (Dawtry et al., 2020) and/or when social norms proscribing negativity toward victims are weakened (Dawtry et al., 2018; Hafer et al., 2019). Distancing oneself from the victim, however, can occur without violating social norms or risking social disapproval, because it does not require overtly negative evaluations or changes in beliefs about a victim's character. Instead, by social distancing, an individual can maintain their self-image and reputation as a fair and empathetic person while compartmentalizing their psychological "world" into their own "just world" and the world of victims—a "world" populated with people possessing psychological attributes dissimilar to one's own, however good or bad.

Our findings therefore add to a growing body of research examining subtle, less overt strategies through which people maintain belief in a just world. Prior work has identified a range of such strategies (see Ellard et al., 2016; Hafer & Rubel, 2015), including compensatory rationalizations (e.g., Gaucher et al., 2010), construing victims' suffering as leading to future benefits (e.g., Harvey et al., 2014), or more subtle forms of derogation and blame (e.g., Dawtry et al., 2018; Hafer et al., 2019). By situating social distancing by spatial distality within this literature, our contribution is not to suggest that covert or socially acceptable responses are unique to our work, but rather to highlight distancing as a distinct and measurable strategy that has not previously been systematically examined. In doing so, we extend previous research by demonstrating that people can maintain their sense of justice not only through cognitive reappraisals of victims, but also by regulating their own psychological proximity to those who experience injustice, including their past selves.

While the idea that people psychologically distance themselves from negative experiences is well-established, our work contributes to the literature by focusing on *symbolic spatial distancing* from innocent victims in unjust contexts—a specific boundary condition that has received less empirical attention. For example, in Study 3, traits rated as more (less) self-characteristic were placed closer to (further from) the self in general but were also placed *relatively further* from the self when the victim's outcome was unjust (vs. just). This is consistent with the idea that injustice is magnified by similarity: People socially distanced a victim receiving an unjust outcome *only on traits central to their self-concept* (i.e., only where similarity was possible, and when reducing similarity distanced the self from an injustice). This resonates with research showing that historical atrocities seem more temporally distant if they are relevant to social identity (e.g., Germans distance from the holocaust relative to Canadians; Peetz et al., 2010); and work on central and peripheral self-views (e.g., Sedikides & Green, 2000). Although people typically rated favorable traits as more self-characteristic, and placed them closer to the self, they also *disowned* those characteristics (i.e., by placing them further from the self), relatively speaking, when

Table 3
Summary of Limitations

Dimension	Assessment
Internal validity	
Is the phenomenon diagnosed with experimental methods?	Yes
Is the phenomenon diagnosed with longitudinal methods?	No
Were the manipulations validated with manipulation checks, pretest data, or outcome data?	Yes. Study 4b validated the manipulations of perceived injustice we used in Studies 1a to 3a. Studies 4a to 5a validated the assumption that participants equated spatial and social distance in similar 2D spatial arrangements used in Studies 1a to 3a.
What possible artifacts were ruled out?	Studies 4a and 4b ruled out a general avoidance explanation—that is, the idea that people simply distance themselves from negative or threatening stimuli—as the primary driver of the justice-based distancing effects observed in Studies 1a and 1b. Study 2 further showed that distancing occurred independently of victim derogation or blame, indicating that distancing is not reducible to explicit victim rejection. Finally, Study 7 demonstrated that spatial distancing effects remained significant even when controlling for subjective and objective temporal distance
Statistical validity	
Was the statistical power at least 80%?	Yes. Although formal power analyses are less straightforward for the mixed-effects models used in most of our studies, given that they require assumptions about the random effects structure that are often arbitrary, we designed our studies to ensure adequate statistical power. We reported sensitivity power analyses for participant-level effects across studies. In Studies 1c, 2, and 7, we preregistered target sample sizes to achieve at least 80% power to detect small-to-medium effects. Overall, our sampling strategy was guided by a conservative approach to ensure high power for detecting theoretically meaningful effects.
Was the reliability of the dependent measure established in this publication or elsewhere?	We did not explicitly test the measures' reliability but (a) replication and validation was integral to the program of research as described above and (b) we relied on previous literature using spatial arrangement methods as measures of perceived similarity (e.g., Callan et al., 2021; Coelho et al., 2009; Goldstone, 1994; Hout et al., 2013).
Generalizability to different methods	
Were different methods and measures used?	We tested our hypotheses using a range of methods, including different attributes for perceived similarity (values, personality), different spatial arrangement methods, and a range of victimization contexts (including self-relevant events).
Generalizability to field settings	
Was the phenomenon assessed in a field setting?	No
Are the methods artificial?	Yes. However, the victimization contexts we used are of the kind that most people might encounter in their everyday lives. We provide a statistical basis to generalize across contexts/scenarios, but it will be important for future research to probe whether psychological distancing from innocent victims occurs in the same way in more 'real world' situations (see Dawtry et al., 2020, for a discussion of this issue in the context of victim derogation effects).
Generalizability to times and populations	
Are the results generalizable to different years and historic periods?	This was not tested.
Are the results generalizable across populations (e.g., different ages, cultures, or nationalities)?	This was not tested. Our studies included UK and US samples. Given that people in different cultures have different construals of the self and others (Markus & Kitayama, 1991), it will be important for future research to probe cross-cultural differences (or similarities) in psychological distancing from innocent victims.

contemplating sharing them with a victim experiencing an unjust (vs. just) outcome. This pattern is difficult to explain through avoidance of negative stimuli or self-enhancement alone.

Our approach also introduces spatial arrangements as a potentially useful alternative for capturing symbolic social distancing. Whereas traditional methods often rely on self-reports (e.g., Correia et al., 2012) or temporal judgments (e.g., Ross & Wilson, 2002) to infer psychological distance, the spatial positioning tasks we introduce and validate here offer a more direct, intuitive means of assessing how individuals mentally represent self–other similarity. By allowing participants to represent relational closeness through physical space, this method provides insight into distancing processes that may reflect intuitions that are not easily articulated. We see this as a complementary method that extends existing approaches and provides a promising tool for studying perceived self–other dissimilarity, both in response to injustice and in broader social contexts.

This research also complements and extends existing work on psychological distancing. First, we provide further support for the idea that experiences of distance and similarity are intertwined across distance domains. In Study 7, subjective temporal distance was related to our measure of social distance by spatial distancing, suggesting that multiple forms of distancing may co-occur but operate through distinct mechanisms. Second, echoing studies showing that subjective distance from experienced events depends on similarity with the present self, rather than simply valence (e.g., Gebauer et al., 2008), people distanced from events that were *unjust*, rather than simply

negative. This suggests a potential, novel explanation: People's present self-view may shape how deserving, and thus close, they feel to outcomes in their own past. Finally, we found that varying spatial distance affects similarity, as well as vice-versa, supporting the notion that similarity is represented through spatial relationships (e.g., Boot & Pecher, 2010; Callan et al., 2021; Winter & Matlock, 2013). This extends work on conceptual metaphor theory to social relationships involving abstract representations of the self and others, and to the domain of moral and justice-related cognition, showing how people use physical space to represent self-other (dis)similarity in response to injustice.

The present work drew on Lerner's (1980) original conception of just-world theory, which positions justice as a fundamental, but largely introspectively opaque, motive. In this experimental tradition, this motive reveals itself in peoples' tendency to respond to injustice in ways that rationalize or minimize its significance. Another perspective, which emerged later but has common foundational principles, focuses instead on individual differences in *explicit* just-world belief and their correlates (e.g., ideological attitudes; see Furnham, 2003; Hafer & Sutton, 2016). Because the present work focused exclusively on the justice motive perspective, it would be important for future studies to investigate whether self-reported just-world beliefs are associated with social distancing from innocent victims by spatial distality. Although this remains an important direction for future research, the overall picture to emerge from the current work is one in which perceived injustice increases social distancing by spatial distality, and spatial closeness in turn increases perceived injustice, independent of victim derogation and blame, across multiple tasks, study designs, and victimization contexts. Distancing from innocent victims is especially pronounced for traits central to the self, and it extends from judgments of others to reflections on the self.

References

Ayers, J. D., Sznycer, D., Sullivan, D., Guevara Beltrán, D., van den Akker, O. R., Muñoz, A. E., Hruschka, D. J., Cronk, L., & Aktipis, A. (2023). Fitness interdependence as indexed by shared fate: Factor structure and validity of a new measure. *Evolutionary Behavioral Sciences*, *17*(3), 259–284. https://doi.org/10.1037/ebs0000300

Bar-Anan, Y., Liberman, N., Trope, Y., & Algom, D. (2007). Automatic processing of psychological distance: Evidence from a stroop task. *Journal of Experimental Psychology: General*, *136*(4), 610–622. https://doi.org/10.1037/0096-3445.136.4.610

Bates, D., Maechler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, *67*(1), 1–48. https://doi.org/10.18637/jss.v067.i01

Batson, C. D., Sager, K., Garst, E., Kang, M., Rubchinsky, K., & Dawson, K. (1997). Is empathy-induced helping due to self–other merging*? Journal of Personality and Social Psychology*, *73*(3), 495–509. https://doi.org/10.1037/0022-3514.73.3.495

Beilock, S. L., & Holt, L. E. (2007). Embodied preference judgments: Can likeability be driven by the motor system? *Psychological Science*, *18*(1), 51–57. https://doi.org/10.1111/j.1467-9280.2007.01848.x

Boot, I., & Pecher, D. (2010). Similarity is closeness: Metaphorical mapping in a conceptual task. *Quarterly Journal of Experimental Psychology*, *63*(5), 942–954. https://doi.org/10.1080/17470210903134351

Buckner, R. L., & Carroll, D. C. (2007). Self-projection and the brain. *Trends in Cognitive Sciences*, *11*(2), 49–57. https://doi.org/10.1016/j.tics.2006.11.004

Bundgaard, P. F. (2019). The structure of our concepts: A critical assessment of Conceptual Metaphor Theory as a theory of concepts. *Cognitive Semiotics*, *12*(1), 1–11. https://doi.org/10.1515/cogsem-2019-2010

Cacioppo, J. T., Priester, J. R., & Berntson, G. G. (1993). Rudimentary determinants of attitudes. II: Arm flexion and extension have differential effects on attitudes. *Journal of Personality and Social Psychology*, *65*(1), 5–17. https://doi.org/10.1037/0022-3514.65.1.5

Callan, M. J., Dawtry, R. J., Waldren, L. H., & Sherman, C. (2025, September 19). *Social distancing from innocent victims by spatial distality*. https://osf.io/6ygtd

Callan, M. J., & Ellard, J. H. (2010). Beyond blame and derogation of victims: Just-world dynamics in everyday life. In D. R. Bobocel, A. C. Kay, M. P. Zanna, & J. M. Olson (Eds.), *The psychology of justice and legitimacy* (pp. 53–77). Psychology Press. https://doi.org/10.4324/9780203837658

Callan, M. J., Harvey, A. J., Dawtry, R. J., & Sutton, R. M. (2013). Through the looking glass: Focusing on long-term goals increases immanent justice reasoning. *British Journal of Social Psychology*, *52*(2), 377–385. https://doi.org/10.1111/bjso.12022

Callan, M. J., Harvey, A. J., & Sutton, R. M. (2014). Rejecting victims of misfortune reduces delay discounting. *Journal of Experimental Social Psychology*, *51*, 41–44. https://doi.org/10.1016/j.jesp.2013.11.002

Callan, M. J., Kay, A. C., Davidenko, N., & Ellard, J. H. (2009). The effects of justice motivation on memory for self-and other-relevant events. *Journal of Experimental Social Psychology*, *45*(4), 614–623. https://doi.org/10.1016/j.jesp.2009.02.013

Callan, M. J., Kay, A. C., & Dawtry, R. J. (2014). Making sense of misfortune: Deservingness, self-esteem, and patterns of self-defeat. *Journal of Personality and Social Psychology*, *107*(1), 142–162. https://doi.org/10.1037/a0036640

Callan, M. J., Moreton, J., & Hughes, G. (2021). Immanent justice reasoning by spatial proximity. *Social Psychological and Personality Science*, *12*(1), 25–33. https://doi.org/10.1177/1948550619893969

Casasanto, D. (2008). Similarity and proximity: When does close in space mean close in mind? *Memory & Cognition*, *36*(6), 1047–1056. https://doi.org/10.3758/MC.36.6.1047

Cialdini, R. B., Borden, R. J., Thorne, A., Walker, M. R., Freeman, S., & Sloan, L. R. (1976). Basking in reflected glory: Three (football) field studies. *Journal of Personality and Social Psychology*, *34*(3), 366–375. https://doi.org/10.1037/0022-3514.34.3.366

Cialdini, R. B., Brown, S. L., Lewis, B. P., Luce, C., & Neuberg, S. L. (1997). Reinterpreting the empathy-altruism relationship: When one into one equals oneness. *Journal of Personality and Social Psychology*, *73*(3), 481–494. https://doi.org/10.1037/0022-3514.73.3.481

Codispoti, M., & De Cesarei, A. (2007). Arousal and attention: Picture size and emotional reactions. *Psychophysiology*, *44*(5), 680–686. https://doi.org/10.1111/j.1469-8986.2007.00545.x

Coelho, G. L. D. H., Hanel, P. H., Johansen, M. K., & Maio, G. R. (2019). Mapping the structure of human values through conceptual representations. *European Journal of Personality*, *33*(1), 34–51. https://doi.org/10.1002/per.2170

Collisson, B., & Howell, J. L. (2014). The liking-similarity effect: Perceptions of similarity as a function of liking. *The Journal of Social Psychology*, *154*(5), 384–400. https://doi.org/10.1080/00224545.2014.914882

Correia, I., Alves, H., Sutton, R., Ramos, M., Gouveia-Pereira, M., & Vala, J. (2012). When do people derogate or psychologically distance themselves from victims? Belief in a just world and ingroup identification. *Personality and Individual Differences*, *53*(6), 747–752. https://doi.org/10.1016/j.paid.2012.05.032

Correia, I., & Vala, J. (2003). When will a victim be secondarily victimized? The effect of observer's belief in a just world, victim's innocence and

persistence of suffering. *Social Justice Research*, *16*(4), 379–400. https://doi.org/10.1023/A:1026313716185

Correia, I., Vala, J., & Aguiar, P. (2007). Victim's innocence, social categorization, and the threat to the belief in a just world. *Journal of Experimental Social Psychology*, *43*(1), 31–38. https://doi.org/10.1016/j.jesp.2005.12.010

Curry, O., & Dunbar, R. I. (2013). Do birds of a feather flock together? The relationship between similarity and altruism in social networks. *Human Nature*, *24*(3), 336–347. https://doi.org/10.1007/s12110-013-9174-z

D'Argembeau, A., & Van der Linden, M. (2004). Phenomenal characteristics associated with projecting oneself back into the past and forward into the future: Influence of valence and temporal distance. *Consciousness and Cognition*, *13*(4), 844–858. https://doi.org/10.1016/j.concog.2004.07.007

D'Argembeau, A., & Van der Linden, M. (2008). Remembering pride and shame: Self-enhancement and the phenomenology of autobiographical memory. *Memory*, *16*(5), 538–547. https://doi.org/10.1080/09658210802010463

Davis, J. I., Gross, J. J., & Ochsner, K. N. (2011). Psychological distance and emotional experience: What you see is what you get. *Emotion*, *11*(2), 438–444. https://doi.org/10.1037/a0021783

Dawtry, R. J., Callan, M. J., Harvey, A. J., & Gheorghiu, A. I. (2020). Victims, vignettes, and videos: Meta-analytic and experimental evidence that emotional impact enhances the derogation of innocent victims. *Personality and Social Psychology Review*, *24*(3), 233–259. https://doi.org/10.1177/1088868320914208

Dawtry, R. J., Callan, M. J., Harvey, A. J., & Olson, J. M. (2018). Derogating innocent victims: The effects of relative versus absolute character judgments. *Personality and Social Psychology Bulletin*, *44*(2), 186–199. https://doi.org/10.1177/0146167217733078

Drout, C. E., & Gaertner, S. L. (1994). Gender differences in reactions to female victims. *Social Behavior and Personality*, *22*(3), 267–277. https://doi.org/10.2224/sbp.1994.22.3.267

Ellard, J. H., Harvey, A., & Callan, M. J. (2016). The justice motive: History, theory, and research. In C. Sabbagh & M. Schmitt (Eds.), *Handbook of social justice theory and research* (pp. 127–143). Springer. https://doi.org/10.1007/978-1-4939-3216-0_7

Furnham, A. (2003). Belief in a just world: Research progress over the past decade. *Personality and Individual Differences*, *34*(5), 795–817. https://doi.org/10.1016/S0191-8869(02)00072-7

Gaucher, D., Hafer, C. L., Kay, A. C., & Davidenko, N. (2010). Compensatory rationalizations and the resolution of everyday undeserved outcomes. *Personality and Social Psychology Bulletin*, *36*(1), 109–118. https://doi.org/10.1177/0146167209351701

Gebauer, J. E., Broemer, P., Haddock, G., & von Hecker, U. (2008). Inclusion-exclusion of positive and negative past selves: Mood congruence as information. *Journal of Personality and Social Psychology*, *95*(2), 470–487. https://doi.org/10.1037/a0012543

Goldstone, R. (1994). An efficient method for obtaining similarity data. *Behavior Research Methods, Instruments, & Computers*, *26*(4), 381–386. https://doi.org/10.3758/BF03204653

Hafer, C. L. (2000a). Do innocent victims threaten the belief in a just world? Evidence from a modified stroop task. *Journal of Personality and Social Psychology*, *79*(2), 165–173. https://doi.org/10.1037/0022-3514.79.2.165

Hafer, C. L. (2000b). Investment in long-term goals and commitment to just means drive the need to believe in a just world. *Personality and Social Psychology Bulletin*, *26*(9), 1059–1073. https://doi.org/10.1177/01461672002611004

Hafer, C. L., & Bègue, L. (2005). Experimental research on just-world theory: Problems, developments, and future challenges. *Psychological Bulletin*, *131*(1), 128–167. https://doi.org/10.1037/0033-2909.131.1.128

Hafer, C. L., & Rubel, A. N. (2015). The why and how of defending belief in a just world. *Advances in Experimental Social Psychology*, *51*, 41–96. https://doi.org/10.1016/bs.aesp.2014.09.001

Hafer, C. L., Rubel, A. N., & Drolet, C. E. (2019). Experimental evidence of subtle victim blame in the absence of explicit blame. *PLOS ONE*, *14*(12), Article e0227229. https://doi.org/10.1371/journal.pone.0227229

Hafer, C. L., & Sutton, R. (2016). Belief in a just world. In C. Sabbagh & M. Schmitt (Eds.), *Handbook of social justice theory and research* (pp. 145–160). Springer. https://doi.org/10.1007/978-1-4939-3216-0_8

Harvey, A. J., & Callan, M. J. (2014). Getting "just deserts" or seeing the "silver lining": The relation between judgments of immanent and ultimate justice. *PLOS ONE*, *9*(7), Article e101803. https://doi.org/10.1371/journal.pone.0101803

Harvey, A. J., Callan, M. J., & Matthews, W. J. (2014). How much does effortful thinking underlie observers' reactions to victimization? *Social Justice Research*, *27*(2), 175–208. https://doi.org/10.1007/s11211-014-0209-3

Heider, F. (1958). *The psychology of interpersonal relations*. Wiley. https://doi.org/10.1037/10628-000

Hout, M. C., Goldinger, S. D., & Ferguson, R. W. (2013). The versatility of SpAM: A fast, efficient, spatial method of data collection for multidimensional scaling. *Journal of Experimental Psychology: General*, *142*(1), 256–281. https://doi.org/10.1037/a0028860

Koch, A., Imhoff, R., Dotsch, R., Unkelbach, C., & Alves, H. (2016). The ABC of stereotypes about groups: Agency/socioeconomic success, conservative–progressive beliefs, and communion. *Journal of Personality and Social Psychology*, *110*(5), 675–709. https://doi.org/10.1037/pspa0000046

Kogut, T., & Ritov, I. (2011). 'Protective donation': When refusing a request for a donation increases the sense of vulnerability. *Journal of Experimental Social Psychology*, *47*(6), 1059–1069. https://doi.org/10.1016/j.jesp.2011.04.006

Kogut, T., Ritov, I., Rubaltelli, E., & Liberman, N. (2018). How far is the suffering? The role of psychological distance and victims' identifiability in donation decisions. *Judgment and Decision Making*, *13*(5), 458–466. https://doi.org/10.1017/S1930297500008731

Kövecses, Z. (2008). Conceptual metaphor theory: Some criticisms and alternative proposals. *Annual Review of Cognitive Linguistics*, *6*(1), 168–184. https://doi.org/10.1075/arcl.6.08kov

Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. B. (2017). lmerTest package: Tests in linear mixed effects models. *Journal of Statistical Software*, *82*(13), 1–26. https://doi.org/10.18637/jss.v082.i13

Lakoff, G., & Johnson, M. (1980). The metaphorical structure of the human conceptual system. *Cognitive Science*, *4*(2), 195–208. https://doi.org/10.1207/s15516709cog0402_4

Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*. Basic Books.

Laporte, S., & Briers, B. (2019). Similarity as a double-edged sword: The positive and negative effects of showcasing similar previous winners on perceived likelihood of winning in sweepstakes. *The Journal of Consumer Research*, *45*(6), 1331–1349. https://doi.org/10.1093/jcr/ucy041

Lerner, M. J. (1977). The justice motive: Some hypotheses as to its origins and forms. *Journal of Personality*, *45*(1), 1–52. https://doi.org/10.1111/j.1467-6494.1977.tb00591.x

Lerner, M. J. (1980). *The belief in a just world: A fundamental delusion*. Springer. https://doi.org/10.1007/978-1-4899-0448-5

Lerner, M. J., & Simmons, C. H. (1966). Observer's reaction to the "innocent victim": Compassion or rejection? *Journal of Personality and Social Psychology*, *4*(2), 203–210. https://doi.org/10.1037/h0023562

Levine, M., Cassidy, C., Brazier, G., & Reicher, S. (2002). Self-categorization and bystander non-intervention: Two experimental studies. *Journal of Applied Social Psychology*, *32*(7), 1452–1463. https://doi.org/10.1111/j.1559-1816.2002.tb01446.x

Levine, M., & Thompson, K. (2004). Identity, place, and bystander intervention: Social categories and helping after natural disasters. *The Journal of Social Psychology*, *144*(3), 229–245. https://doi.org/10.3200/SOCP.144.3.229-245

Libby, L. K., & Eibach, R. P. (2011). Self-enhancement or self-coherence? Why people shift visual perspective in mental images of the personal past and future. *Personality and Social Psychology Bulletin*, *37*(5), 714–726. https://doi.org/10.1177/0146167211400207

Lindeman, M., & Verkasalo, M. (2005). Measuring values with the Short Schwartz's Value Survey. *Journal of Personality Assessment*, *85*(2), 170–178. https://doi.org/10.1207/s15327752jpa8502_09

Liviatan, I., Trope, Y., & Liberman, N. (2008). The effect of similarity on mental construal. *Journal of Experimental Social Psychology*, *44*, 1256–1269. https://doi.org/10.1016/j.jesp.2008.04.007

Markus, H. R. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, *35*(2), 63–78. https://doi.org/10.1037/0022-3514.35.2.63

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, *98*(2), 224–253. https://doi.org/10.1037/0033-295X.98.2.224

McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, *27*(1), 415–444. https://doi.org/10.1146/annurev.soc.27.1.415

Montoya, R. M., Horton, R. S., & Kirchner, J. (2008). Is actual similarity necessary for attraction? A meta-analysis of actual and perceived similarity. *Journal of Social and Personal Relationships*, *25*(6), 889–922. https://doi.org/10.1177/0265407508096700

Mühlberger, A., Neumann, R., Wieser, M. J., & Pauli, P. (2008). The impact of changes in spatial distance on emotional responses. *Emotion*, *8*(2), 192–198. https://doi.org/10.1037/1528-3542.8.2.192

Novak, D. W., & Lerner, M. J. (1968). Rejection as a consequence of perceived similarity. *Journal of Personality and Social Psychology*, *9*(2), 147–152. https://doi.org/10.1037/h0025850

Pauels, E., Schneider, I. K., & Schwarz, N. (2023). Close to the same: Similarity influences remembered distance between stimuli. *Psychonomic Bulletin & Review*, *30*(5), 1814–1828. https://doi.org/10.3758/s13423-023-02267-5

Peetz, J., Gunn, G. R., & Wilson, A. E. (2010). Crimes of the past: Defensive temporal distancing in the face of past in-group wrongdoing. *Personality and Social Psychology Bulletin*, *36*(5), 598–611. https://doi.org/10.1177/0146167210364850

Piliavin, I. M., Rodin, J., & Piliavin, J. A. (1969). Good samaritanism: An underground phenomenon? *Journal of Personality and Social Psychology*, *13*(4), 289–299. https://doi.org/10.1037/h0028433

Pyszczynski, T., Greenberg, J., Solomon, S., Cather, C., Gat, I., & Sideris, J. (1995). Defensive distancing from victims of serious illness: The role of delay. *Personality and Social Psychology Bulletin*, *21*(1), 13–20. https://doi.org/10.1177/0146167295211003

Pyszczynski, T., Greenberg, J., Solomon, S., Sideris, J., & Stubing, M. J. (1993). Emotional expression and the reduction of motivated cognitive bias: Evidence from cognitive dissonance and distancing from victims' paradigms. *Journal of Personality and Social Psychology*, *64*(2), 177–186. https://doi.org/10.1037/0022-3514.64.2.177

R Core Team. (2024). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. https://www.R-project.org/

Roads, B. D., & Love, B. C. (2024). Modeling similarity and psychological space. *Annual Review of Psychology*, *75*(1), 215–240. https://doi.org/10.1146/annurev-psych-040323-115131

Rogers, T. B., Kuiper, N. A., & Kirker, W. S. (1977). Self-reference and the encoding of personal information. *Journal of Personality and Social Psychology*, *35*(9), 677–688. https://doi.org/10.1037/0022-3514.35.9.677

Ross, M., & Wilson, A. E. (2002). It feels like yesterday: Self-esteem, valence of personal past experiences, and judgments of subjective distance. *Journal of Personality and Social Psychology*, *82*(5), 792–803. https://doi.org/10.1037/0022-3514.82.5.792

Ross, M., & Wilson, A. E. (2003). Autobiographical memory and conceptions of self: Getting better all the time. *Current Directions in Psychological Science*, *12*(2), 66–69. https://doi.org/10.1111/1467-8721.01228

Schiano Lomoriello, A., Meconi, F., Rinaldi, I., & Sessa, P. (2018). Out of sight out of mind: Perceived physical distance between the observer and someone in pain shapes observer's neural empathic reactions. *Frontiers in Psychology*, *9*, Article 1824. https://doi.org/10.3389/fpsyg.2018.01824

Schimel, J., Psyszczynski, T., Greenberg, J., O'Mahen, H., & Arndt, J. (2000). Running from the shadow: Psychological distancing from others to deny characteristics people fear in themselves. *Journal of Personality and Social Psychology*, *78*(3), 446–462. https://doi.org/10.1037/0022-3514.78.3.446

Sedikides, C. (1995). Central and peripheral self-conceptions are differentially influenced by mood: Tests of the differential sensitivity hypothesis. *Journal of Personality and Social Psychology*, *69*(4), 759–777. https://doi.org/10.1037/0022-3514.69.4.759

Sedikides, C., & Green, J. D. (2000). On the self-protective nature of inconsistency-negativity management: Using the person memory paradigm to examine self-referent memory. *Journal of Personality and Social Psychology*, *79*(6), 906–922. https://doi.org/10.1037/0022-3514.79.6.906

Spreng, R. N., Mar, R. A., & Kim, A. S. (2009). The common neural basis of autobiographical memory, prospection, navigation, theory of mind, and the default mode: A quantitative meta-analysis. *Journal of Cognitive Neuroscience*, *21*(3), 489–510. https://doi.org/10.1162/jocn.2008.21029

Tamir, D. I., & Mitchell, J. P. (2011). The default network distinguishes construals of proximal versus distal events. *Journal of Cognitive Neuroscience*, *23*(10), 2945–2955. https://doi.org/10.1162/jocn_a_00009

Tausen, B. M., Carpenter, S., & Macrae, C. N. (2020). Just another variant of psychological distance? The role of visual perspective in mental simulation. *Psychology of Consciousness: Theory, Research, and Practice*, *7*(4), 351–362. https://doi.org/10.1037/cns0000210

Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. *Advances in Experimental Social Psychology*, *21*, 181–227. https://doi.org/10.1016/S0065-2601(08)60227-0

Tingley, D., Yamamoto, T., Hirose, K., Keele, L., & Imai, K. (2014). mediation: R package for causal mediation analysis. *Journal of Statistical Software*, *59*(5), 1–38. https://doi.org/10.18637/jss.v059.i05

Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review*, *117*(2), 440–463. https://doi.org/10.1037/a0018963

Wakimoto, R. (2011). Reconstruction of the subjective temporal distance of past interpersonal experiences after mortality salience. *Personality and Social Psychology Bulletin*, *37*(5), 687–700. https://doi.org/10.1177/0146167211400422

Warner, R. H., VanDeursen, M. J., & Pope, A. R. (2012). Temporal distance as a determinant of just world strategy. *European Journal of Social Psychology*, *42*(3), 276–284. https://doi.org/10.1002/ejsp.1855

Westfall, J., Kenny, D. A., & Judd, C. M. (2014). Statistical power and optimal design in experiments in which samples of participants respond to samples of stimuli. *Journal of Experimental Psychology: General*, *143*(5), 2020–2045. https://doi.org/10.1037/xge0000014

Wilson, M., & Knoblich, G. (2005). The case for motor involvement in perceiving conspecifics. *Psychological Bulletin*, *131*(3), 460–473. https://doi.org/10.1037/0033-2909.131.3.460

Winter, B., & Matlock, T. (2013). Making judgments based on similarity and proximity. *Metaphor and Symbol*, *28*(4), 219–232. https://doi.org/10.1080/10926488.2013.826529

Wood, J. V., Heimpel, S. A., Manwell, L. A., & Whittington, E. J. (2009). This mood is familiar and I don't deserve to feel better anyway: Mechanisms underlying self-esteem differences in motivation to repair sad moods. *Journal of Personality and Social Psychology*, *96*(2), 363–380. https://doi.org/10.1037/a0012881

Yang, Q., Ybarra, O., Zhao, Y., & Huang, X. (2020). Restoring meaning: Self-uncertainty increases subjective distance between the past and present self. *Social Behavior and Personality*, *48*(7), 1–9. https://doi.org/10.2224/sbp.8823

Zhang, Y., Risen, J. L., & Hosey, C. (2014). Reversing one's fortune by pushing away bad luck. *Journal of Experimental Psychology: General*, *143*(3), 1171–1184. https://doi.org/10.1037/a0034023

Received August 23, 2024
Revision received September 19, 2025
Accepted September 23, 2025 ■

E-Mail Notification of Your Latest Issue Online!

Would you like to know when the next issue of your favorite APA journal will be available online? This service is now available to you. Sign up at https://my.apa.org/portal/alerts/ and you will be notified by e-mail when issues of interest to you become available!