Thinking about the Distant Future Promotes the Prospects of Peace:
A Construal-level Perspective on Intergroup Conflict Resolution

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All the study materials used in the current research are available at https://researchbox.org/567.
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Abstract

The current research reveals that the pursuit of peace entails an inherent paradox. The urgent need to save lives and alleviate human suffering necessitates swift solutions to the problem of intergroup conflict. However, because the human mind associates peace with longer time horizons, people anticipate peace more when considering the distant rather than the near future. Six experiments demonstrate a robust and large effect whereby thinking about the distant future promotes the prospects of peace compared to thinking about the near future. These experiments also provide evidence for the role that construal fit, i.e., the tendency to match high temporal distance with abstractness, plays in this effect. We discuss implications for shorter-term and longer-term peace interventions.

Keywords: intergroup conflict; temporal distance; construal level; construal fit; conflict management and resolution.
Intergroup conflict remains one of humanity’s most pressing problems (De Dreu & Gross, 2019; Esteban, Mayoral, & Ray, 2012; Fiske, 2002; Fry, 2012; Halevy & Cohen, 2019). The urgent need to save human lives and alleviate the suffering of millions of people naturally propels us to seek immediate relief to intergroup conflict. Paradoxically, the pursuit of swift solutions to intergroup conflict may undermine the prospects of peace. This novel hypothesis is based on a simple idea, namely that people inherently associate peace with the distant future. We propose that the fundamental and potent tendency of the human mind to associate peace with the distant future represents an instantiation of construal fit, which in turn, promotes processing fluency. The coupling of the distant future and peace is processed more fluently than the coupling of the near future and peace, resulting in stronger expectations of peace when considering the distant rather than the near future. Put differently, we predict that individuals would judge peaceful solutions to intergroup conflict as more viable and probable when thinking about longer, rather than shorter, time-horizons.

**Construal Level Theory of Psychological Distance**

Our novel hypothesis builds on the idea that people inherently associate peace with the distant future. We derived this notion from the Construal Level Theory of psychological distance (henceforth CLT; Trope & Liberman, 2003, 2010). A considerable body of research suggests that people tend to form concrete mental representations of entities and events that are present, proximate, or plausible. In contrast, people tend to form abstract mental representations of entities and events that are absent, distant or improbable. Importantly, this research shows that causality flows in both directions. That is, increasing people’s distance from entities and events makes people think about them abstractly. Complementarily, increasing the abstractness of
entities and events makes people experience them as farther away (Liberman, Trope, McCrea, & Sherman, 2007; Trope & Liberman, 2003, 2010).

Numerous studies have established the reciprocal influence of psychological distance in general—and temporal distance in particular—on level of abstraction. For example, asking participants to think about next year resulted in higher-level descriptions of activities as compared with asking participants to think about tomorrow (Liberman & Trope, 1998). Similarly, asking participants to plan several months into the future resulted in broader and more inclusive categories (e.g., of items to be taken on a camping trip or to be sold in a yard sale) relative to asking them to plan just a few days into the future (Liberman, Sagristano, & Trope, 2002). Likewise, instructing participants to think about next year increased the correspondence between their abstract values and their behavioral intentions compared to instructing them to think about next week (Eyal, Sagristano, Trope, Liberman, & Chaiken, 2009).

Importantly, a principal focus of the aforementioned studies and many similar studies was establishing the bidirectional influence of temporal distance and level of mental representation (Bar-Anan, Liberman, & Trope, 2006; Liberman & Trope, 2008). Relatively fewer studies have examined how temporal distance shapes judgments related to group-level outcomes (rather than personal experiences) or utilized insights from CLT to advance our understanding of significant societal issues (such as reactions to climate change: e.g., Spence, Poortinga, & Pidgeon, 2012). To the best of our knowledge, the current research is the first to apply CLT to intergroup phenomena by investigating how temporal distance influences the perceived viability of peace.

**Psychological Distance and Peace**
Research from the perspective of CLT has identified several mental processes that, taken together, are likely to produce a greater fit between high levels of psychological distance and peace than between low levels of psychological distance and peace. First, when considered against a backdrop of hostility and struggle between groups, peace is often viewed as an aspirational state. Peace contrasts sharply with the adverse everyday experiences that intergroup conflict often bears (e.g., Rouhana & Bar-Tal, 1998; Sternberg, 2003; Thabet, Abed, & Vostanis, 2004). Further, transitioning from warfare to peace, or from conflict to reconciliation, requires time, effort, and additional resources (e.g., investing money in educational enterprises and public opinion campaigns: Bar Tal, 1998; Hameiri et al., 2014). Thus, peaceful coexistence is likely to be experienced as a counterfactual, hypothetical, and improbable state. CLT postulates that hypothetical and less probable events are experienced as more psychologically distant from the self here and now, relative to actual and more probable events, which are experienced as psychologically closer to the self here and now. Put differently, an event that may or may not happen is experienced as farther from the self than an event that will surely happen. Because individuals tend to match corresponding distances in their mind (Bar-Anan et al., 2006; Trope & Liberman, 2010), they tend to believe that less likely events will unfold farther away in space and later in time as compared with more likely events (Todorov, Goren, & Trope, 2007; Wakslak, 2012). Thus, people may perceive peace as more probable in the distant future because it is seen as a profound change from the status-quo and hence a less likely outcome.

Second, research from the perspective of CLT has found that greater psychological distances and high construal mindsets are associated with more global, integrative, and inclusive behavior in social interactions. For example, participants who made allocation decisions under a high-construal mindset chose to maximize joint gains (rather than their personal gains) more
often than individuals who made the same allocation decisions under a low-construal mindset (Stillman, Fujita, Sheldon, & Trope, 2018). Additionally, negotiators who expected the negotiated agreement to be implemented in the distant rather than in the near future engaged in more integrative bargaining behaviors by bundling issues and exchanging offers that involved tradeoffs between higher value and lower value issues, thereby increasing joint outcomes for both parties in the negotiation (Henderson, Trope, & Carnevale, 2006). Thus, temporal distance from the execution of a negotiated agreement helps people focus on the bigger picture and promotes integrative agreements (De Dreu, Giacomantonio, Shalvi, & Sligte, 2009; Giacomantonio, De Dreu, & Mannetti, 2010; Wening, Keith, & Abele, 2016). Importantly, these findings have been documented in interpersonal interactions, which tend to be more cooperative than intergroup interactions (i.e., the discontinuity effect: Wildschut et al., 2003). Nonetheless, to the extent that people are personally familiar with the experience that temporal distance and thinking about the big picture promote cooperation, they may expect similar processes to take place in intergroup relations. Therefore, they may perceive temporal distance as helpful for bridging political, socioeconomic, linguistic and other divides that create high psychological distance between groups in conflict (Bogardus, 1933; Laitin, 2000).

Third, higher levels of psychological distance may be associated with peace because it is an abstract concept. Unlike war, which is a concrete concept often associated with vivid threat-related imagery and visceral reactions, peace is an abstract value—an elusive ideal that transcends specific circumstances. In established measures of personal value priorities (e.g., Rokeach, 1973; Schwartz, 1992), peace features as a terminal goal—a socially desirable end-state similar to social justice and equality (Schwartz & Bilsky, 1990). CLT postulates that people tend to associate abstract concepts with larger psychological distances. Accordingly, people may
intuitively and powerfully associate peace with the distant future more than they associate peace with the near future. As this account illustrates, several mental processes related to psychological distance and construal level (as well as additional cognitive and affective processes) may be at play here, consistent with the multifaceted nature of peace. Importantly, we see these mental processes as complementary rather than mutually exclusive. The first and second mental processes noted above (i.e., the matching of temporal distance with less probable events, and the effect of temporal distance on integrative negotiations, respectively) have been studied repeatedly. Comparatively, fewer studies have focused on the positive downstream consequences of construal fit—the experience of cognitive fluency that comes from matching abstract concepts with high psychological distance and concrete concepts with low psychological distance. Therefore, in the current research we take this less traveled path and focus on the role that construal fit plays in buttressing the link between high temporal distance and expectations of peace.

**The Power of Construal Fit**

Research from the perspective of CLT provides compelling evidence that individuals process information more fluently under conditions of construal fit. Specifically, response times in implicit association tests are significantly shorter when the psychological distance from a stimuli matches, rather than mismatches, the construal level of that stimuli (Bar-Anan et al., 2006). The fact that construal fit promotes processing fluency has important downstream consequences. Research shows that the subjective experience of processing fluency (i.e., experiencing information processing as less effortful) is hedonically rewarding (Winkielman, Schwarz, Fazenderio, & Reber, 2003; Reber, Schwartz, & Wienkelman, 2004), and that stimuli that are processed more fluently are judged as more truthful (Unkelbach & Greifeneder, 2018).
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and trustworthy (Silva, Chrobot, Newan, Schwarz, & Topolinski, 2017), less risky (Song & Schwarz, 2009), and more persuasive (Carter, Bobocel, & Brockener, 2020; Lee & Aaker, 2004).

Integrating the ideas that: (a) construal fit promotes processing fluency; and (b) processing fluency promotes positive evaluation of stimuli (e.g., persons, products, ideas, and persuasive messages), researchers have postulated that people react positively when the abstractness versus concreteness of an idea matches their psychological distance from the source of the idea. Consistent with this integration, research shows that employees report more favorable workplace attitudes when distant organizational leaders communicate abstractly (e.g., articulate broad and timeless vision) and proximate leaders communicate concretely (i.e., provide concrete feedback and mentoring) than vice versa. Similarly, this research found that calls to participate in collective action were more persuasive when distant leaders communicated them abstractly and proximate leaders communicate them concretely rather than vice versa (Berson & Halevy, 2014; Berson, Halevy, Shamir, & Erez, 2015).

The Current Research

Building on these ideas and findings, we predicted that temporal distance would boost the prospects of peace in individuals’ minds because the pairing of distant future and peace produces construal fit (and is therefore processed fluently) more than the pairing of near future and peace. Put differently, we hypothesized that, consistent with the aforementioned appeal of construal fit and the positive reactions evoked by processing fluency, individuals will judge peace as a more viable solution to intergroup conflict when considering the distant future rather than the near future. We report findings from six experiments that tested this hypothesis in various contexts. Some of these contexts involved ongoing, intense, large-scale intergroup conflicts (e.g., the Israeli-Palestinian conflict and the Russian-Ukrainian conflict) whereas other contexts involved
conflictual relations that do not involve clashes between armed forces (e.g., the United Kingdom’s decision to break from the European Union). We also tested this hypothesis in the context of a hypothetical intergroup conflict, which enabled us to ensure that preconceived notions about the conflict, knowledge about, or attitudes toward various groups involved in the conflict do not shape participants’ reactions. Finally, four of our six experiments also provide evidence for the role that the construal fit between temporal distance and abstractness versus concreteness plays in this effect.

Overall, these experiments were designed to make three contributions. First, we sought to contribute to the intergroup conflict literature by illuminating an important psychological process that shapes expectations of peaceful coexistence heretofore overlooked in that literature. Second, we sought to contribute to research from the perspective of CLT by extending previous work on psychological distance and construal fit to the domain of intergroup relations, thereby illustrating how a fundamental cognitive phenomenon can shape attitudes toward an important societal issue. Finally, we sought to contribute to the conflict management literature by highlighting the potential benefits of matching the abstractness versus concreteness of dispute resolution interventions with the temporal distance between the present time and the intended implementation of such interventions.

Methods Overview

To recruit participants for our studies, we used different online panels, including Amazon’s Mechanical Turk and Prolific Academic. Participants in Studies 1a and 1b responded about intergroup conflicts that do not involve their own country (i.e., self-irrelevant conflicts). In contrast, participants in Studies 2, 3, and 4 responded about intergroup conflicts that involve their own country (i.e., self-relevant conflicts). Finally, Study 5 used a hypothetical context,
which allowed us to ensure that context-specific knowledge and assumptions about different groups involved in real-world conflicts do not drive the effect. Given our focus on temporal distance as the independent variable, it is important to note that we conducted studies 1a, 1b, 3 and 4 in 2019, and Studies 2, and 5 in 2020. Because we did not know exactly what effect size to expect, we aimed to recruit at least 100 participants per condition, which should yield sufficient statistical power to detect a medium-sized effect. In each study, we consistently excluded from analyses all observations coming from individuals who attempted to complete the same study multiple times (i.e., twice or more). We report for each study precisely how many observations we excluded from analyses based on this criterion. Overall, we excluded a very small fraction of the observations based on this criterion (Study 1a: 0/200; Study 1b: 5/204; Study 2: 7/408; Study 3: 2/202; Study 4: 8/403; Study 5: 3/306). Experiments 1a, 1b, and 3 were exploratory in nature. Hence, they were not pre-registered. They also included additional measures that go beyond the focus of the current paper. The pre-registrations for Experiments 2, 4, and 5 are available here: Experiment 2: https://aspredicted.org/he2ek.pdf
Experiment 4: https://aspredicted.org/qh2gq.pdf
Experiment 5: https://aspredicted.org/i5kw3.pdf

Studies 1a and 1b: The Israeli-Palestinian and Russian-Ukrainian Conflicts

Studies 1a and 1b used the same methodology, with two variations. First, the experimental manipulation of near versus distant future used different target years (i.e., thinking about 2020 vs. 2050 in Study 1a; thinking about 2020 vs. 2030 in Study 1b). Second, Study 1a was conducted in the context of the Israeli-Palestinian conflict (Halevy, Sagiv, Roccas, & Bornstein, 2006), and in Study 1b we explored the effect of temporal distance on the prospects of
peace in a different intergroup context—the conflict between Russia and Ukraine. Given their similar methodologies, we present Studies 1a and 1b together below.

**Methods**

*Study 1a.* We recruited 200 individuals from Prolific Academic to participate in a short study about intergroup conflict (56.0% male, age: $M=28.7$, $SD=9.7$). We randomly assigned participants to a low temporal distance condition (“Think about the Middle East in 2020”) or a high temporal distance condition (“Think about the Middle East in 2050”). Participants then indicated their agreement with four items concerning their expectations and beliefs (1=Strongly disagree, 7=Strongly agree). The items were: “There will be a peaceful resolution to the Israeli-Palestinian Conflict in [year]”, “In [year], Israelis and Palestinians will coexist peacefully side by side”, “By [year], the Israeli-Palestinian Conflict will be resolved through a peace accord”, and “By [year], a peace settlement will end the Israeli-Palestinian Conflict”. We averaged these four judgments to create a single index for each participant ($a=.93$).

*Study 1b.* We recruited 199 participants from Prolific Academic (51.8% male, age: $M=28.3$, $SD=9.1$) and asked them to respond to questions in the context of the armed conflict between Russia and Ukraine. Participants read the following instructions: “Think about the relations between the Russia and Ukraine in the year [number]”. The only difference between the low and high temporal distance conditions was the year in question (2020 vs. 2030, respectively). Participants subsequently indicated how much they agreed or disagreed with four statements (1=Strongly disagree, 7=Strongly agree): “There will be mutually beneficial relations between Russia and Ukraine in [year]”, “In [year], there will be a collaborative agreement that settles Russia's relations with Ukraine”, “By [year], the crisis in eastern Ukraine will be resolved through an international accord”, and “By [year], Russia and Ukraine will have achieved a
collaborative settlement that establishes their future relations”. We averaged these four judgments to create a single index for each participant (α=.92).

Given the exploratory nature of Studies 1a and 1b, they included additional measures that go beyond the scope of the current paper and are not discussed further.

Results and Discussion

Study 1a. Thinking about 2050 resulted in significantly stronger beliefs in the prospects of peace than thinking about 2020 (M=3.93, SD=1.28 and M=2.92, SD=1.22, respectively), t(198)=−5.72, p<.001, Cohen’s d=.81). Thus, temporal distance had a positive impact of judgments of the viability of peace.

Study 1b. Extending Study 1a’s findings to judgments in the context of a different international conflict, thinking about 2030 resulted in significantly stronger beliefs in the prospects of peace than thinking about 2020 (M=4.08, SD=1.20 and M=3.04, SD=1.28, respectively), t(197)=−5.91, p<.001, Cohen’s d=.84).

Taken together, the findings from Studies 1a and 1b demonstrate a statistically large effect of temporal distance on expectations of peace, which generalized across two distinct intergroup contexts—the Israeli-Palestinian conflict and the Russian-Ukrainian conflict—and using different instantiations of temporal distance (a 30-year gap in Study 1a, and a 10-year gap in Study 1b).

Study 2: The American-Iranian Conflict

We designed Study 2 to rule out the possibility that individuals perceive any collective outcome as more likely in the distant future as compared with the near future. Consistent with our theorizing that peace is abstract whereas war is concrete, we tested the hypothesis that
temporal distance would increase beliefs in the prospects of peace but decrease beliefs in the prospects of war.

**Methods**

Following military actions undertaken by American and Iranian armed forces in January 2020 (https://www.nytimes.com/2020/01/11/us/politics/iran-trump.html), we recruited 401 individuals from Amazon’s Turk Prime platform to participate in a short study about intergroup conflict (62.6% male, age: $M=37.1$, $SD=11.2$).

We randomly assigned participants to one of four conditions in a 2 (Temporal Distance: Low versus High) x 2 (Outcome: War versus Peace), between-participant experimental design. We asked participants in the low temporal distance condition, “Think about the relations between the United States and Iran in the year 2020”. Participants in the high temporal distance condition received the same instructions with reference to the year 2030. Participants assigned to think about the prospects of war responded to the following four items: “There will be war between the U.S. and Iran in [year]”, “I expect military clashes between the U.S. and Iran in [year]”, “There will be armed conflict between the U.S. and Iran in [year]”, and “The U.S. will undertake military actions against Iran in [year]” (1=Strongly disagree, 7=Strongly agree, $\alpha=.95$). Participants assigned to think about the prospects of peace used the same scale to respond to the following four items: “There will be peace between the U.S. and Iran in [year]”, “I expect peaceful relations between the U.S. and Iran in [year]”, “U.S. - Iran relations will improve dramatically in [year]”, and “There will be a peaceful resolution to the hostilities between the U.S. and Iran in [year]” ($\alpha=.96$).

**Results**
Consistent with our hypothesis, a significant interaction emerged, $F(1,396)=12.88$, $p=.001$. Thinking about 2030 increased beliefs in the prospects of peace relative to thinking about 2020 ($M=3.78, SD=1.70$ vs. $M=3.20, SD=1.46$, respectively, $F(1,396)=6.79$, $p=.01$, Cohen’s $d=.37$). In contrast, thinking about 2030 decreased beliefs in the prospects of war relative to thinking about 2020 ($M=3.76, SD=1.76$ vs. $M=4.32, SD=1.39$, respectively, $F(1,396)=6.10$, $p=.014$, Cohen’s $d=.35$). Figure 1 presents these results. Study 2’s findings demonstrate that individuals do not simply judge any event as more likely in the distant future as compared with the near future. Rather, peaceful solutions to intergroup conflict become more viable, whereas warfare becomes less viable, when considering the distant future.

**Figure 1.** Effects of temporal distance on beliefs in the prospects of war and peace (Study 2).

Note. Error bars represent standard errors.
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Studies 3 and 4

Studies 3 and 4 extended our research into the context of an unarmed international conflict: Great Britain’s relations with the European Union as it aimed to leave the union. Study 3 provides evidence for our hypothesized theoretical mechanism by showing that the effect of temporal distance operates on high construal outcomes—positive relations between nations—but not on low construal outcomes—positive everyday interactions between individuals. Study 4 provides further evidence for our hypothesized theoretical mechanism by experimentally manipulating participants’ concrete versus abstract mindsets (i.e., individuals’ propensity to attend to more concrete versus more abstract aspects of a stimulus or a situation) and demonstrating that this induction moderates the effects of temporal distance on beliefs in the prospects of peace. Similar to Study 2, both Study 3 and Study 4 sampled participants for whom the intergroup conflict in question was self-relevant (i.e., it involved their national group).

Study 3: Abstract and Concrete Outcomes of Brexit

Methods

Two-hundred UK participants from Prolific Academic completed Study 3 (48% male, age: $M=30.7, SD=11.6, 1$ missing demographics). We randomly assigned participants to one of two conditions. In the low temporal distance condition participants read: “Think about the relations between the UK and the EU in the year 2020. The questions below refer to your expectations and beliefs about the United Kingdom's relations with the European Union in 2020.” Participants in the high temporal distance condition read the exact same instructions with the year changed to 2030.

Participants subsequently indicated their agreement with 8 items (1=Strongly disagree, 7=Strongly agree), the order of which was randomized for each participant. The first four items
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captured high construal relations between the large-scale entities—the UK and the EU. The four items were: “There will be mutually beneficial relations between the United Kingdom and the European Union in [year]”; “In [year], there will be a collaborative agreement that settles UK’s relations with the EU”; “By [year], the current situation created by the Brexit referendum will be resolved through an international accord”; and “By [year], the UK and the EU will have achieved a collaborative settlement that establishes their future relations” ($\alpha=.88$).

The remaining four items captured low construal interactions between individuals—expectations of daily positive contact between people from the UK and those from other European countries. The four items were: “I expect to have positive everyday interactions with citizens of other European countries in [year]”; “Overall, my personal relationships with individuals from EU countries will be positive in [year]”; “Personally, I expect to work alongside individuals from other EU countries in [year]”; and “I expect to live in a community with individuals from other EU countries in [year]” ($\alpha=.86$).

**Results**

A mixed-model ANOVA with temporal distance as a between-participant factor and high construal vs. low construal outcomes as the within-participant factor found two significant main effects and the predicted interaction. First, consistent with research on the interpersonal-intergroup discontinuity effect (e.g., Wildschut et al., 2003), there was a main effect of level of social interaction whereby participants expected interpersonal interactions to be more positive than international relations: $M=5.50$, $SD=1.18$ vs. $M=4.58$, $SD=1.35$, respectively, $F(1,198)=82.23$, $p<.001$, $\eta_p^2=.293$. Second, there was a significant effect of temporal distance such that participants had significantly greater positive expectations for 2030 as compared with 2020, $M=5.32$, $SD=.91$ vs. $M=4.77$, $SD=1.05$, respectively, $F(1,198)=15.81$, $p<.001$, Cohen’s
Finally, lending support to the hypothesized mechanism of construal fit, these two main effects were qualified by the hypothesized interaction, $F(1,198)=28.56, p<.001, \eta_p^2=.126$.

Specifically, the positive effect of temporal distance on expectations of positive intergroup relations was significant for the high construal outcome (international relations: $M=4.05, SD=1.33$ vs. $M=5.14, SD=1.15, F(1,198)=38.49, p<.001$, Cohen’s $d=.88$) but not for the low construal outcome (daily interpersonal interactions: $M=5.49, SD=1.26$ vs. $M=5.51, SD=1.10, F(1,198)=0.11, p=.92$, Cohen’s $d=-.02$). Figure 2 below depicts this significant interaction. These findings lend support to our idea that construal fit plays an important role in driving the effect.

**Figure 2.** Effects of temporal distance on expectations of high and low construal outcomes (Study 3).

![](image.png)

Note. Error bars represent standard errors.
Study 4: Abstract and Concrete Mindsets in Thinking about Brexit

In Study 4, we used a different approach to examine our hypothesized underlying mechanism. Specifically, we orthogonally crossed temporal distance and concrete versus abstract mindsets (i.e., individuals’ propensity to attend to more concrete versus more abstract aspects of a stimulus or a situation), expecting the latter to moderate the effect of the former on beliefs in the prospects of peace.

Methods

Prior to conducting Study 4, we pre-tested our experimental manipulation of concrete versus abstract mindsets using a separate sample of 200 UK participants (32.5% male, age: $M=35.4$, $SD=11.8$). All the participants read the same speech written by the authors, based on actual speeches delivered in the British Parliament that opposed the Brexit process (see Appendix 1). We randomly assigned participants to a concrete mindset condition or an abstract mindset condition. Participants in the concrete (abstract) condition were asked to type into a designated form seven concrete (abstract) words they identified in the speech they read. All the participants then rated how much they perceived the speech to be: Concrete, specific, focused, actionable, well defined, abstract, vague, broad, ill defined, and aspirational ($\alpha=.83$; last five items recoded). As expected, participants in the concrete mindset condition, who were prompted to focus on the concrete terms included in the speech, rated the speech as significantly more concrete than participants in the abstract mindset condition ($M=3.52$, $SD=.77$ and $M=3.16$, $SD=.73$, respectively), $t(198)=-3.45$, $p=.001$, Cohen’s $d=.48$.

We subsequently recruited participants to participate in Study 4. A total of 398 UK participants from Prolific Academic completed Study 4 (39.5% male, age: $M=37.9$, $SD=12.8$). We randomly assigned participants to a concrete mindset condition or an abstract mindset
condition using the same procedure employed in the pilot study described above. After participants read the speech and wrote down either concrete or abstract words, depending on their assigned condition (which increased their propensity to attend to concrete versus abstract aspects of the stimulus provided in the experimental context), they received the same instructions employed in Study 3. That is, within each mindset condition, we randomly assigned participants to think about the relations between the UK and the EU in either 2020 (low temporal distance condition) or 2030 (high temporal distance condition). Participants then responded to the same four items used to assess high construal positive expectations employed in Study 3 (α=.92).

**Results**

Replicating the findings from Experiments 1-3, a 2-way ANOVA found a significant effect of temporal distance on beliefs in the prospects of peace, $M=3.59$, $SD=1.37$ vs. $M=4.81$, $SD=1.21$, $F(1,391)=88.14$, $p<.001$, Cohen’s $d=.94$. The main effect of mindset was not statistically significant (concrete: $M=4.17$, $SD=1.42$ vs. $M=4.23$, $SD=1.44$, $F(1,391)=.24$, $p=.63$, Cohen’s $d=.04$). Lending support to the hypothesized underlying mechanism of construal fit, this analysis also indicated a significant interaction between temporal distance and abstract versus concrete mindset, $F(1,391)=3.93$, $p=.048$. As Figure 3 shows, the positive effect of temporal distance on beliefs in the prospects of peace was significantly stronger under an abstract mindset ($M=3.49$, $SD=1.37$ vs. $M=4.97$, $SD=1.10$, $F(1,391)=64.49$, $p<.001$, Cohen’s $d=1.19$) than under a concrete mindset ($M=3.69$, $SD=1.38$ vs. $M=4.65$, $SD=1.30$, $F(1,391)=27.49$, $p<.001$, Cohen’s $d=.72$). These findings extend the results of Study 3 by providing further evidence that construal fit facilitates positive judgments about the viability of peace in the distant future.
Figure 3. Effect of temporal distance on expectations of positive relations between nations under concrete and abstract mindsets (Study 4).

Note. Error bars represent standard errors.

Study 5

Study 5 was designed to address the possibility that participants perceive peace as more likely in the distant future, as compared with the near future, in part because the status-quo is characterized by intergroup conflict, thereby making peace a greater change from the present.
According to this account, the near future is likely to be characterized by inertia and continuity of the present state, and transitioning from the present state to the opposite state is likely to take a longer period of time. This account treats transitioning from war to peace and from peace to war symmetrically. In contrast, our theorizing suggests that, because people think about war more concretely, and about peace more abstractly, the effect of temporal distance on expectations of peace (when the status-quo is war) is likely to be larger than the effect of temporal distance on expectations of war (when the status-quo is peace). Thus, above and beyond the perception that larger changes require longer time periods to take place, the construal fit between the abstractness of peace and high temporal distance is likely to result in a larger effect of temporal distance when considering the transition from war now to peace in the distant future than when considering the transition from peace now to war in the distant future.

Importantly, in Studies 1a through 4, we used different real-world intergroup conflicts as the context in which we examined the effect of temporal distance on expectations of peace. Although we employed both self-relevant and self-irrelevant intergroup conflicts, and found consistent effects across both kinds of contexts, participants’ perceptions of the status-quo in these real-world conflicts, and preexisting knowledge and attitudes toward these real-world conflicts, may have shaped their beliefs about the likelihood of peace in the near versus the distant future. Hence, in Study 5 we used a hypothetical intergroup conflict in a fictional land that we named Velvetia as the context for our investigation.

Method

Participants. We aimed to recruit 300 participants from Prolific Academic. Consistent with our pre-registration, we excluded from analyses 3 of the 306 observations that came from the same participant, as well as data from 26 participants who either failed an attention check
item (n=23) or have not completed it (n=3). These exclusions left a final sample of 277 participants in Study 5 (52% male, age: $M=31.9, SD=11.4$).

**Design & Procedure.** Study 5 used a 2 (current state: war vs. peace) x 2 (predicted outcome: war vs. peace) x 2 (temporal distance: next year vs. twenty years into the future) mixed design, with the first two factors manipulated between participants and the last factor manipulated within participants.\(^1\) All the participants read: “Imagine a land named Velvetia, in which two tribes have been neighbors for centuries. During their shared history, there have been periods in which they have fought intense wars and periods in which they coexisted peacefully side by side.” Participants then read, based on the current state condition they were randomly assigned to, that the status-quo right now in Velvetia is either war or peace (“There is currently war/peace between the two tribes in Velvetia).

**Measures.** Participants in all conditions then responded to two items: “Thinking about next year, how likely is it that there will be [outcome] in Velvetia?” and “Thinking about 20 years from now, how likely is it that there will be [outcome] in Velvetia?” The order of the two items was randomly determined for each participant. Predicted outcome was manipulated by having both items refer either to “war” or “peace”, depending on each participant’s assigned condition. Participants responded to both items using 7-pt scales ranging from 1=extremely unlikely to 7=extremely likely.

Participants subsequently responded to an attention check item that asked them to recall the current state (war or peace) in Velvetia, reported their demographics and exited the survey.

**Results**

Figure 4 illustrates the results of Study 5. A mixed-model ANOVA found a significant effect of temporal distance, $F(1,273)=19.73, p<.001, \eta_p^2=.067$, which was qualified by two
significant two-way interactions—between temporal distance and predicted outcome, $F(1,273)=6.56, p=.011, \eta^2_p=.023$ and between current state and predicted outcome, $F(1,273)=42.87, p<.001, \eta^2_p=.136$—as well as by a significant three-way interaction, $F(1,273)=279.38, p<.001, \eta^2_p=.506$. The main effects of current state, $F(1,273)=1.96, p=.162, \eta^2_p=.007$, and predicted outcome, $F(1,273)=.015, p=.904, \eta^2_p=.0001$, as well as the two-way interaction between temporal distance and current state, $F(1,273)=1.39, p=.240, \eta^2_p=.005$, were non-significant.

As Figure 4 shows, Study 5 replicated the theorized effect whereby when the current state is characterized by war (intergroup conflict), peace is seen as significantly more likely in the distant future than in the near future. In contrast, when the current state is characterized by peace, war is seen as significantly more likely in the distant future than in the near future. Although in both cases, transition from the current state to the opposite state was seen as more likely in the distant future than in the near future, when considering transition from war to peace and from peace to war separately, the effect of temporal distance on transition from war to peace ($\eta^2_p=.709$) was substantially larger than the effect of temporal distance on transition from peace to war ($\eta^2_p=.515$), consistent with the highly significant three-way interaction noted above.

Finally, a mixed-model ANOVA focusing only on the conditions involving change (either from war to peace or from peace to war) found a significant temporal distance by direction of change interaction, $F(1,139)=6.94, p=.009, \eta^2_p=.048$, indicating that the effect of temporal distance was significantly stronger when participants considered change from war now to peace in the distant future than when participants considered change from peace now to war in the distant future.

The finding that under a current state of war individuals expect war to continue into the near future may explain the persistence of conflict and hostility between groups. This idea is
consistent with recent research showing that making individuals perceive war as the current default increases individual participation in harmful intergroup conflict (Böhm, Halevy, & Kugler, 2020). Overall, Study 5’s findings show that, although people generally expect the current state to continue in the near future, and change in the distant future, the largest gap in expectations between the near and the distant future emerges when the current state is war and the predicted outcome for the distant future is peace.

**Figure 4.** Effect of temporal distance on expectations of war and peace as a function of the status-quo (Study 5).

![Figure 4. Effect of temporal distance on expectations of war and peace as a function of the status-quo (Study 5).](image)

Note. Error bars represent standard errors.

**General Discussion**

Six experiments provide consistent evidence that thinking about the distant future increases the prospects of peace relative to thinking about the near future. The effect of temporal
distance on judgments of the viability of peace is robust, large, and emerged across five distinct contexts: The Israeli-Palestinian conflict, the Russian-Ukrainian conflict, the American-Iranian conflict, the United Kingdom’s exit from the European Union, and a hypothetical intergroup conflict. Importantly, we found this effect across both self-irrelevant intergroup conflicts (Experiments 1a, 1b, and 5) and self-relevant intergroup conflicts (Experiments 2-4). The generalizability of the effect to both self-irrelevant and self-relevant conflicts potentially suggests that this effect is cognitive in nature rather than the result of motivational processes. Further, the fact that the effect of temporal distance on judgments of the viability of peace emerged across five distinct intergroup conflicts suggests that it is not bound by the particular features of any specific intergroup conflict.

Experiments 2-5 elucidated the psychological underpinnings of this effect. Experiment 2 showed opposite trends for expectations of war versus peace, thereby clarifying that it is not the case that any collective event is judged as more likely to transpire in the distant future as compared with the near future. Lending further support to the hypothesized role that construal fit plays in the observed effect, Experiment 3 demonstrated that the effect emerges for high construal, but not for low construal outcomes. Specifically, temporal distance increased the perceived likelihood of positive between-nation relations post-Brexit, but did not influence the perceived likelihood of positive interpersonal relations between citizens of different European countries post-Brexit. Experiment 4 found that the effect is significantly stronger under an abstract mindset as compared with a concrete mindset. Experiment 5 demonstrated that the effect of temporal distance on expectations of change from the current status quo are significantly stronger when the transition is from war to peace than vice versa. Taken together, these findings establish the role that abstractness versus concreteness plays in driving the effect of temporal
distance on judgments of the viability of peace. They also demonstrate the value of construal fit for promoting expectations of peace.

**Theoretical Implications and Related Phenomena**

Multiple literatures have previously examined individuals’ propensity to prescribe to optimistic views of the future. For example, people believe that they are personally less vulnerable than others to various risk factors (e.g., influenza, food poisoning; Weinstein, 1989), among other well-documented positive illusions (McCay & Dennett, 2009; Taylor & Brown, 1988; Sharot, 2011). The current research departs from such previous work in three notable ways. First, previous work focused on individuals’ beliefs about their own personal future, whereas we examined judgments about the likelihood of collective future events that extend well beyond the self. Second, we find the same effects for self-irrelevant conflicts (in Studies 1a, 1b, and 5) and self-relevant conflicts (that involve participants’ membership group, in Studies 2-4). The fact that the same pattern of findings emerged also when the self was not implicated by the judgments suggests that judging the likelihood of a peaceful future is not motivated by positive, self-enhancing illusions. Third, previous research on the “rosy view” has shown that temporal distance from a positive experience, either before or after its occurrence (i.e., when anticipating it or recalling it), is associated with more positive evaluations of that experience relative to real-time evaluations during its occurrence. Unlike research on the “rosy view”, participants in the different conditions in our experiments all thought about the future—either the near future (i.e., next year) or the distant future (e.g., 10 years into the future). Further, participants in our experiments considered collective and enduring states, namely war and peace, rather than an isolated personal experience, such as a trip to Europe or a holiday vacation (e.g., Mitchell,
Thompson, Peterson, & Cronk, 1997). Hence, the current findings go beyond previous research on motivated positive illusions and evaluations of temporally-bounded personal experiences.

The current research also contributes to the literature on CLT by demonstrating how the experience of construal fit between temporal distance and abstractness shapes expectations and beliefs. Previous research from the perspective of CLT has documented that individuals intuitively match different distances, such that remote possibilities are seen as more likely to happen farther in geographical distance as well as later in time (e.g., Bar-Anan et al., 2006). Consistent with the idea that individuals intuitively perceive a fit between congruent distances, previous research that has provided individuals with explicit probabilities of less likely and more likely events found that people believed that less likely events were more likely to materialize farther away than nearby. For example, participants were more willing to bet on an underdog boxer (who had a 5% chance of winning) when the fight would happen in a faraway arena than in a nearby arena (Wakslak, 2012). These studies have provided participants explicit information about probabilities of different events and objective distances in space or time, and showed that people intuitively associate corresponding psychological distances along different dimensions (e.g., probability and spatial distance).

Unlike these studies, our experiments did not provide participants explicit information about the likelihood of future events (i.e., peace). Further, our experiments focus on the tendency to intuitively associate temporal distance with abstract outcomes, rather than psychological distances of different kinds. In that regard, our findings are closer to previous research showing that a match between psychological distance and the abstractness versus concreteness of communicated messages facilitates positive outcomes such as employee satisfaction and willingness to participate in collective action (Berson & Halevy, 2014; Berson et al., 2015). The
current findings extend previous research that documented the power of construal fit to shape evaluations and behavioral intentions. We propose that the construal fit created by the coupling of thinking about the distant future and the abstractness of peace facilitated processing fluency relative to the construal misfit created by the coupling of thinking about the near future and the abstractness of peace. Consistent with the established positive consequences of processing fluency (e.g., Unkelbach & Greifeneder, 2018; Reber et al., 2004; Winkielman et al., 2003), construal fit increased positive expectations in our experiments.

**Practical Implications**

Manifestations of intergroup conflict—including terrorism, massacres, and full-blown wars—continue to deliver death, misery, and destruction to millions of people around the world. Whereas immediate and concrete actions to reduce violence (e.g., a ceasefire) are essential for curbing hostilities, our research suggests that aspiring for *peace now* (https://peacenow.org.il/en/about-us/who-are-we) goes counter to peoples’ fundamental tendency to associate peace with high temporal distance. Our findings highlight the importance of incorporating the temporal dimension in considering interventions aimed at reducing or resolving intergroup conflict (Halevy & Cohen, 2019). Based on our findings, governments and non-governmental organizations that seek to promote peace (e.g., https://copafrica.org/; https://www.seedsofpeace.org/about/) would do well to harness construal fit to enhance their impact. Matching localized and concrete interventions with shorter time horizons and more comprehensive and abstract interventions with longer time horizons has the benefit of capitalizing on inherent tendencies of the human mind. Hence, we strongly encourage peace advocates to take into consideration the temporal dimension in paving a path toward peace.
Our findings also have implications for leaders in organizations. Leaders often serve as conflict managers in their organizations (Karambayya, Brett, & Lytle, 1992; Conlon, Carnevale, & Murnighan, 1994), and can use the resources they control to promote collaboration and establish cooperative norms among coworkers (Halevy & Halali, 2015; Nakashima, Halali, & Halevy, 2017). Our findings suggest that managers and leaders who seek to promote cooperation would do well to design concrete short-term interventions alongside more abstract long-term interventions to capitalize on the benefits of construal fit. Mismatching temporal horizons and the concreteness versus abstractness of intervention may be viewed as unrealistic and improbable, thereby undermining leaders’ reliability and effectiveness in the eyes of followers.

**Strengths, Limitations, and Future Directions**

We see the fact that the main effect of temporal distance on judgments of the viability of peace emerged consistently with different samples and across distinct contexts as a notable strength of the current research. Indeed, the effect of temporal distance on expectations of peace emerged despite the fact that participants in different studies presumably experienced different levels of spatial and social distance from the groups in conflict (though these were held constant across conditions within each study through random assignment to conditions). Additionally, the support we found for the hypothesized interactions illuminates the potential role of construal fit in the observed effect.

As noted in the introduction, peace is a multifaceted construct. Accordingly, multiple cognitive and affective processes may link temporal distance and judgments of the viability of future peace. For example, it may be the case that thinking about the distant future increases the extent to which peace is valued positively (as compared with thinking about the near future), which in turn, fuels stronger expectations of peace. Importantly, these complementary cognitive
and affective processes may coexist and co-operate in producing the robust positive effect of temporal distance on expectations of peace observed in our studies. Thus, the evidence provided in the current paper for the potential role that construal fit plays in the observed effect does not preclude the potential role that feelings of hope (which are distinct from optimism: Halevy, 2017) play in mediating the effect. Additionally, the extent to which individuals perceive that the transition from war and hostility to peace and reconciliation requires ample time and resources may moderate the effect of temporal distance on judgments of the viability of peace. Hence, future research may examine additional pathways leading from temporal distance to expectations of peace. Hopefully, the large and robust effect of temporal distance on expectations of peace, which replicated across multiple experiments, will inspire and stimulate future research on the multiple mechanisms that potentially underlie this effect.

More specifically, future research may benefit from considering the following possibilities when exploring further the psychological mechanisms that carry the effect of temporal distance to expectations of peace. First, it is plausible that individuals conceive of war as a transitory state designed to be replaced by a stable and lasting peace. Thus, the effect of temporal distance on beliefs in the viability of peace may be stronger among individuals who believe strongly that warfare is a transient and unstable state (rather than an intractable, enduring state between nations). Second, using high-level construals may be instrumentally beneficial for long-term strategizing and planning, whereas low-level construals may be more functional when pursuing short-term goals. Hence, the effect of temporal distance on expectations of peace may be stronger among individuals who see the functionality of matching distances and construal (beyond the cognitive fluency brought about by construal fit).
Like any research, the current research has certain limitations, which highlight promising directions for future research on this topic. For example, the extent to which believing more strongly in the prospects of peace translates into willingness to engage in actions to promote peaceful resolution of intergroup conflict remains an open question. Thus, an interesting challenge that awaits future research concerns bridging the gap between abstract values and aspirations on the one hand, and concrete behavior on the other hand (e.g., Eyal et al., 2009).

One possibility is that individuals’ tendencies to believe that peace is more viable in the distant future as compared with the near future make them less likely, rather than more likely, to invest valuable resources (such as time, money, and effort) in attempting to promote peaceful solutions to intergroup conflict *here and now*. In contrast, to the extent that people see a direct path between their individual actions here and now, and collective outcomes in the distant future, they may be inclined to invest valuable resources in the promotion of peaceful solutions to intergroup conflict. Past research has shown that actions can be framed at different levels of construal (e.g., Liberman & Trope, 1998; Trope & Liberman, 2010) and that the future can be made to feel closer or farther away (Bashir et al., 2014). Future research may explore the extent to which framing different actions associated with the peaceful resolution of intergroup conflict (e.g., positive intergroup contact, signing petitions, donating to NGOs that seek to promote peace, voting for political parties that aim to promote peace) abstractly versus concretely interact with temporal distance in shaping individual behavior in the context of intergroup conflict. Future research may also explore the effectiveness of interventions that seek to make peace itself more concrete by inducing individuals to think about future peace as temporally proximal (Bashir et al., 2014). It is an open question to what extent individuals who live in conflict-prone regions can be induced to think or feel that peace is psychologically proximate.
Future research may also use additional methodologies (e.g., analyses of texts and archival data) and samples (e.g., policy-makers, leaders) to examine the generalizability and limits of the positive effect of temporal distance (and other forms of psychological distance) on judgments of the viability of peace. Accumulating additional evidence in support of the positive effect of temporal distance on the prospects of peace may propel leaders to devise and execute long-term plans for transforming intergroup conflict into peaceful coexistence. Leaders who realize the power of construal fit may also be better able to persuade their followers to pursue peaceful solutions to intergroup conflict.

Finally, we hope that the current research will inspire and stimulate future research from the perspective of construal level theory on other collective phenomena, including collective efforts to promote social justice and combat climate change. We see great promise in future research that will enhance our understanding of the role that psychological distance plays in shaping individual engagement with, and participation in, collective efforts aimed at positive social change.
Notes

1. Due to an oversight, type of outcome (predicting war vs. peace) was erroneously listed as a within-participant factor in the pre-registration document. It was implemented in the study as a between-participant factor.
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References


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**Appendix 1.** Task used to manipulate concrete versus abstract mindset in Study 4.

**Instructions in the concrete condition:**
“Below you will find the text of a speech about Brexit. Please read the speech below carefully and write down below 7 **concrete** words you identified in the paragraph. Concrete words are words that describe objects you can access with your senses (i.e., see, hear, touch, smell, or taste). For example, the words "palace", "men", and "standing" are concrete words.”

**Instructions in the concrete condition:**
“Below you will find the text of a speech about Brexit. Please read the speech below carefully and write down below 7 **abstract** words you identified in the paragraph. Abstract words are words that describe ideas and concepts you can NOT access with your senses (i.e., you cannot see, hear, touch, smell, or taste). For example, the words "peace", "equality", and "legacy" are abstract words.”

**Speech text:**

“Scrap Brexit!

We are standing here today in front of this grand palace because peace in Europe is still a cause worth fighting for. We are here on this cold winter day because we believe that our connection to our brothers and sisters in the continent makes us stronger and better. We are here today because there is no justification for selfish isolation. We are here today - men, women, and children - because we believe that the invaluable connection to other European nations is the path to prosperity and happiness. We are standing here today with our fellow citizens who came from every city, town, and village to defend a unity based on shared ideals of democracy, human rights, equality, freedom, and commitment to better life for all. We are here today to celebrate a common European inheritance and to call for a common European future. We are here today because we are the guardians and caretakers of an honorable legacy. We will fight Brexit online and in every street corner, by blocking roads and bridges, by protesting online and in person. We will fight in the upcoming elections and in any future referendum for the sake of this country and future generations. We are here today so that the world will hear us loud and clear as we make a solemn promise to our children: That we will thrive through connection, thrive through cooperation, and thrive by never letting go of the audacious dream of a united Europe!”