



## Unfreezing cognitions during an intractable conflict: Does an external incentive for negotiating peace and (low levels of) collective angst increase information seeking?

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A core feature of intractable conflicts is the tendency to cognitively freeze on existing, pro-ingroup beliefs. In three experiments, conducted in the context of the Palestinian–Israeli conflict, we tested the idea that an external incentive for negotiating peace helps unfreeze cognitions. In Experiment 1, making salient that peace with the Palestinians would reduce the Iranian nuclear threat (an external incentive) led to a process of unfreezing. In Experiment 2, we examined whether collective angst as an emotional sentiment (i.e., concern for the ingroup’s future vitality as a temporally stable emotional disposition) moderated the aforementioned external incentive–cognitive unfreezing link. As predicted, external incentive salience promoted cognitive unfreezing, but only among people low in collective angst (i.e., people who are not concerned for the ingroup’s future). In Experiment 3, we sought to replicate the results of Experiment 2. However, socio-political forces (i.e., a significant upswing in tensions between Palestinians and Israelis) likely served to freeze cognitions to such an extent that thawing was not possible by the means demonstrated in Experiments 1 and 2. The importance of confidence in a peace process is discussed in the context of efforts to unfreeze cognitions during an intractable conflict.

Intractable intergroup conflicts are by definition difficult to resolve. The severity of harm inflicted and continuance of violence over long periods of time stem, in part, from societal beliefs that provide a lens through which information about the conflict is processed (see Bar-Tal, 2013; Porat, Halperin, & Bar-Tal, 2015). This lens provides groups embroiled in an intractable conflict with a unique, ingroup-centric perspective on the cause and maintenance of the conflict. Each party typically sees itself as the victim and the other as the perpetrator and catalyst for continued violence. The result is the delegitimization of the outgroup and a belief that the harm experienced by the ingroup exceeds that experienced by the outgroup (see Noor, Brown, Gonzalez, Manzi, & Lewis, 2008), which justifies the continuance of conflict (Staub & Bar-Tal, 2003; Vollhardt, 2009).

One avenue to conflict resolution is acquiring an understanding of the outgroup’s perspective or narrative (i.e., their account of conflict; Galinsky, Maddux, Gilin, & White, 2008). However, the benefits that can be reaped from understanding the perspective of

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the outgroup (i.e., movement towards reconciliation) are often difficult to achieve (see Wohl, Hornsey, & Philpot, 2011). This is because there is an array of psychological barriers to conflict resolution, especially in intractable conflicts (Halperin & Bar-Tal, 2011). The result of these psychological barriers is a tendency for group members to cognitively freeze on the ingroup's account of the conflict. More specifically, groups in such situations become blind to the outgroup's narrative as well as new opportunities for peace initiated by the outgroup (Bar-Tal & Halperin, 2009). Indeed, conflict (as opposed to cooperation) reduces general problem solving as well as cognitive flexibility (Carnevale & Probst, 1998). This tendency results from a psychological need for an unambiguous understanding of the discord between parties (Kruglanski, 2004), which manifests as a reduced need to seek information about the conflict (see Halperin & Bar-Tal, 2011; Porat *et al.*, 2015). When information seeking ceases, willingness to negotiate a resolution to the conflict is undermined (Halperin & Bar-Tal, 2011). To kick-start the information-seeking process (and unfreeze cognitions), pressure to resist information seeking must be balanced with pressure to facilitate information seeking.

One process that might facilitate the unfreezing process is the presence of external incentives for negotiating peace. Stedman (1996) argued that willingness to negotiate (for which openness to information is necessary) stems not from a desire for peace, but from a variety of conditions external to peace (e.g., military and political conditions). In this light, negotiations begin only when conflicting parties perceive the ingroup will benefit from engaging in the peace process (Kelman, 1987; Walter, 2002; Zartman, 2002).

Unfortunately, previous research (e.g., Maoz & McCauley, 2005, 2009) has shown that intergroup threat reduces the perceived benefits of peace, which *lessens* openness and thus undermines willingness to negotiate for peace. As such, a potential for threat reduction may be an incentive that motivates people to unfreeze their current cognitions. Herein, we test a version of this contention. Specifically, we test the idea that group members become *more* open to information about the outgroup's perspective as well as about new opportunities for peace (i.e., demonstrate cognitive unfreezing) when achieving peace is framed as potentially removing an *external* or different intergroup threat. That is, an external incentive for negotiating peace (e.g., reduced threat posed by a different group) may increase information seeking about the peace process.

It is understood, however, that intractable conflicts are a breeding ground for feeling intergroup threat and thus emotional sentiments (i.e., temporally stable emotional dispositions) that negatively influence attitudes and behaviour within a conflict setting (see Halperin & Gross, 2011; Halperin, Sharvit, & Gross, 2011). We assert one emotional sentiment – *collective angst* – might play an especially important role in the cognitive unfreezing process. As originally conceptualized, collective angst is an emotional reaction to perceived existential threats to the ingroup (Wohl & Branscombe, 2008; Wohl, Branscombe, & Reysen, 2010). Emotion theorists, however, have suggested people also have enduring affective traits or sentiments that mimic event-based emotional response (Frijda, 1986). Providing an extension to the intergroup level, Halperin *et al.* (2011) argued that group-based emotional sentiments are enduring emotions that are unrelated to any specific group action or event (see also Halperin & Gross, 2011). According to Wohl, Squires, and Caouette (2012), some group members have a tendency to concern themselves with the future vitality of the ingroup. People high in collective angst as an emotional sentiment have a tendency to report greater support for political protest aimed at protecting the ingroup's future (even if they are at the expense of an outgroup; Wohl, King, & Taylor, 2014). In this light, individual differences in collective angst may moderate the cognitive unfreezing utility of external incentives for negotiating peace.

This secondary hypothesis is based on the argument that cognitive unfreezing requires people to believe in the ingroup's strength to meet future challenges (Marcus, 2006) – such beliefs are the antithesis of collective angst. Put another way, when people are concerned with the ingroup's inability to securing its future, they are likely to cognitively freeze on information they believe will protect the group's future. This is because the future of the group is too important to allow intrusive thought that could originate from new information to infiltrate and thus distract them from their end goal – protection of the future vitality of the ingroup. Within the context of ongoing intergroup conflict, cognitive freezing may serve as an ingroup protective act that allows group members to make hard decisions in times of conflict (e.g., compromise or strike against the adversary) without the burden of deep information processing (see Dupuis, Porat, & Wohl, 2015). Indeed, additional information might lead to questioning of one's decision – an aversive proposition for those high in collective angst and thus one to be avoided.

### **Overview of the current research**

To test our hypotheses, we use the Palestinian–Israeli conflict. Explicitly, reduction in the threat posed by a nuclear Iran was used as the external incentive for negotiating peace with the Palestinians. At first glance, using Iranian–Israeli relations as an external incentive to facilitate cognitive unfreezing about Palestinian–Israeli relations might appear perplexing. However, political discourse in Israel often link the United States' ability to effectively deal with Iran's pursuit of nuclear weapons – weapons that could be used against Israel – with negotiating a peaceful end to the Palestinian–Israeli conflict (see Eldar, 2013). Across three experiments, we examined whether providing an external incentive for peace (i.e., reduction in the Iranian nuclear threat) might unfreeze cognitions (i.e., information about the Palestinian perspective and the peace process).

To this end, in Experiment 1 we manipulated the presence of an external incentive for negotiating peace by telling a sample of Jewish Israelis that advancing negotiations with the Palestinians will facilitate United States' capability to effectively deal with Iran's nuclear aspirations (a major source of threat in the eyes of most Israelis). We then assessed cognitive unfreezing via self-reported willingness to be exposed to information about the Palestinian perspective. We also assessed whether a possible link between an external incentive for negotiating peace and cognitive unfreezing was the result of affect (positive or negative) or reductions in state-level collective angst. In Experiment 2, we directly and behaviourally tested the hypothesized moderation model. Specifically, we assessed whether Jewish Israelis' cognitions unfreeze (assessed via their reading articles about the peace process) when an external incentive for peace was salient and they possess a low sentiment of collective angst. In Experiment 3, we sought to replicate and extend Experiment 2 by including three additional comparative conditions – one that decoupled the previously tested external incentive (i.e., reduction in the Iranian nuclear threat) from advancements in the peace process (with Palestinians), one that coupled advancement in the peace process (with Palestinians) with a different threat-reducing external incentive (i.e., reduction in the threat posed by the Islamic State in Iraq and Syria [ISIS] militants), and one with an ingroup strengthening external incentive (i.e., increased financial aid from the United States).

## EXPERIMENT 1

The purpose of Experiment 1 was multifold. First and foremost, we wanted to test our proposition that an external incentive for negotiating peace would undermine cognitive freezing. To this end, a sample of Jewish Israelis was exposed to the idea that peace with the Palestinians would increase the United States' capacity to thwart Iran's nuclear ambitions. The United States' ability to prevent Iran from obtaining nuclear weapons is important to Israelis because Iran has vowed to destroy Israel (Rezaei & Cohen, 2014). Additionally, we assessed participants' positive and negative emotions following the experimental manipulation. We did so to eliminate the possibility that participants in the external incentive condition might experience lower positive affect and/or higher negative affect relative to participants in the control condition, which could undermine information processing.

Lastly, before testing our moderation model (in Experiments 2 and 3) that the emotional sentiment of collective angst interacts with the external incentive manipulation to unfreezing cognitions, for methodological purposes, we deemed it important to assess (in Experiment 1) whether the manipulation influenced state-level feelings of collective angst. We wanted to do so because Halperin, Porat, and Wohl (2013) showed that Israelis experience low levels of collective angst when encouraged to think that Israel has the ability to contend with an Iranian nuclear strike (compared to not having such ability). Although Israelis' ability to directly contend with an Iranian nuclear strike was not manipulated in Experiment 1, collective angst may be artificially lowered by making a route to reduce the realistic threat posed by Iran, via reconciliation with the Palestinians, salient compared to those in the control condition.

## Method

### Participants

Participants were 67 Jewish Israelis (53.7% Male;  $M_{age} = 51.98$ ,  $SD = 12.84$ ) who were approached online by an Israeli survey company (the 'Midgam') and invited to participate in a short online study in return for monetary compensation (10 NIS). In terms of political orientation, 40% stated they were Rightists, 33.8% indicated they were Centrists, and 26.2% stated they were Leftists.

### Procedure

Participants were contacted via email and asked to fill out a questionnaire regarding their attitudes and opinions on social and political issues. They were randomly assigned to either an external incentive or control condition. In the external incentive condition, participants read a (bogus) report allegedly written by the Brookings Institute that linked progress in the Israeli–Palestinian front to United States' ability to effectively deal with the Iranian nuclear threat against Israel. In the control condition, participants read a text about positive effects of coffee. After reading the text, participants completed a manipulation check measure that assessed the extent to which participants believed that peace with Palestinians would reduce the Iranian nuclear threat (i.e., external incentive salience). Participants also completed measures that assessed their current affect (positive as well as negative), state levels of collective angst, and openness to information about the Palestinian perspective on the conflict. Thereafter, participants were fully debriefed and remunerated.

## Measures

### *Manipulation check*

As a check on our manipulation, two items ( $\alpha = .75$ ; adapted from Halperin *et al.*, 2013) assessed the extent to which participants believed that peace with the Palestinians would reduce the threat posed by a nuclear Iran (i.e., that there is an external incentive for negotiating peace with the Palestinians). These items were as follows: 'The US will be capable of preventing Iran from obtaining nuclear weapons only if Israel makes progress in its negotiations with the Palestinians', and 'It is sometimes better to make small compromises (e.g., with the Palestinians) in order to deal with bigger threats (e.g., Iran)'. Items were anchored at 1 (strongly disagree) and 6 (strongly agree). High scores represented greater belief in an external incentive for negotiating peace.

### *Positive and negative affect*

Participants' current emotional state was assessed using the 20 item PANAS (Watson, Clark, & Tellegen, 1988). We used the general dimension affect scales. Positive affect items were as follows: Active, alert, attentive, determined, enthusiastic, excited, inspired, interested, proud, and strong ( $\alpha = .87$ ). Negative affect items were as follows: Afraid, scared, nervous, jittery, irritable, hostile, guilty, ashamed, upset, and distressed ( $\alpha = .89$ ). Participants were asked to report the extent to which they currently felt these emotions on a scale anchored at 1 (very slightly or not at all) and 5 (extremely).

### *State collective angst*

Three items ( $\alpha = .76$ ; adapted from Wohl & Branscombe, 2009) assessed the extent to which participants were currently feeling concerned for the future vitality of Israel. These items were as follows: 'I feel that Israel will always thrive' (reversed), 'I feel anxious about the future of the Israeli society', and 'I feel concerned that the future of Israel is in jeopardy'. Items were anchored at 1 (strongly disagree) and 6 (strongly agree). Higher scores represent greater state levels of collective angst.

### *Willingness to unfreeze cognitions*

The extent to which participants expressed openness to read information about the Palestinian perspective on the conflict was used to assess cognitive unfreezing. Seven items ( $\alpha = .89$ ) were constructed for this purpose. For example, one item read: 'It's important to be exposed to a variety of information in order to understand the Palestinian side'. Items were anchored at 1 (strongly disagree) and 6 (strongly agree). Higher scores represent greater openness to information.

### *Demographics*

At the end of the survey, participants were asked to report their age, gender, and political orientation. The political orientation item was anchored at 1 (extreme right) and 7 (extreme left).

## Results

We first ran a manipulation  $\times$  gender analysis of variance (ANOVA) on all measured variables. Because the main effect of gender was not significant for any of the dependent variables (all  $ps > .74$ ), nor were there interactions with this variable and any of the measured variables (all  $ps > .33$ ), we collapsed across gender for all subsequent analyses. We also ran a manipulation  $\times$  political orientation ANOVA on the measured variables. Results showed a significant main effect of political orientation on collective angst,  $p = .03$ , and self-reported openness to information,  $p = .003$ . There were also significant interactions between condition and political orientation on positive affect,  $p = .04$ , and openness to information,  $p = .05$ . As a result, we controlled for political orientation throughout the analyses to ensure that our effects were not driven by participants' ideology. With that said, results did not change when analyses were conducted without controlling for political orientation.

### Manipulation check

One-way ANOVA showed that the external incentive manipulation successfully influenced the extent to which Jewish Israelis believed that negotiating peace with the Palestinians would reduce the threat posed by a nuclear Iran,  $F(1, 62) = 10.22, p = .002, \eta_p^2 = .14$ . Specifically, participants in the external incentive condition perceived peace with the Palestinians would reduce the Iranian nuclear threat ( $M = 2.96, SD = 1.27$ ) more than participants in the control condition ( $M = 2.19, SD = 1.03$ ).

### Positive and negative affect

The external incentive manipulation did not significantly influence either positive,  $F(1, 62) = 2.00, p = .16, \eta_p^2 = .03$ , or negative affect,  $F(1, 62) = 0.50, p = .48, \eta_p^2 = .008$ .

### State collective angst

Akin to positive and negative affect, the external incentive manipulation did not significantly influence state collective angst,  $F(1, 64) = 0.31, p = .58, \eta_p^2 = .005$ .

### Willingness to cognitively unfreeze

As predicted, the external incentive manipulation significantly influenced the extent to which participants were open to information about the Palestinian perspective on the conflict,  $F(1, 62) = 5.98, p = .02, \eta_p^2 = .09$ . Specifically, participants in the external incentive condition were more willing to unfreeze their cognitions ( $M = 3.56, SD = 0.95$ ) than participants in the control condition ( $M = 3.05, SD = 0.91$ ).

## Discussion

In line with our general hypothesis, Jewish Israelis reported a greater openness to hear about the Palestinian perspective on the Palestinian–Israeli conflict when they believed that progress in peace negotiations would reduce the Iranian nuclear threat (i.e., an external incentive for negotiating peace). Moreover, as anticipated, the manipulation did not influence positive or negative affect. Interestingly, the manipulation did not influence

participants' feelings of state-level collective angst. This is somewhat surprising. Previous research has shown that existential threats to a group's future vitality can heighten collective angst (see Wohl *et al.*, 2010). Results from Experiment 1 suggest that although the salience of an existential threat might temporarily heighten collective angst, the possible reduction in an intergroup threat that has an existential flavour (i.e., a nuclear Iran that desires to use those weapons against Israel) does not reduce collective angst.

## EXPERIMENT 2

Experiment 2 sought to replicate and extend the cognitive unfreezing effect observed in Experiment 1 using a behavioural measure of cognitive unfreezing. Previous research (e.g., Halperin & Bar-Tal, 2011; Porat *et al.*, 2015) has shown that in the context of intractable conflicts, cognitions about the outgroup's narrative as well as peace proposals tend to be frozen. Accordingly, whereas Experiment 1 examined cognitive unfreezing in relation to the outgroup's narrative, in Experiment 2 we moved to examine cognitive unfreezing in relation to a peace proposal from the outgroup. Specifically, participants were given online access to a number of newspaper articles that were either in favour or opposed to re-opening the peace process with the Palestinians – articles that placed the Arab peace initiatives and the Palestinians' peace proposals either in a positive or negative light. Cognitive unfreezing was operationally defined in terms of total time spent on the website as well as the overall number of articles opened by each participant. Importantly, we also examined whether Jewish Israelis who did not have an enduring concern for Israel's future would demonstrate the greatest amount of cognitive unfreezing as a result of the external incentive for negotiating peace manipulation. This is because the emotional sentiment of collective angst likely has inherent cognitive freezing qualities.

## Method

### Participants

Participants were selected from a large pool of participants who completed a broad array of pretest measures. Of this sample, 530 were invited to participate in this study. Recruitment for this study stopped once we reached our desired sample of 76 Jewish Israelis (51% Male;  $M_{\text{age}} = 42.64$ ,  $SD = 14.18$ ). Recruitment and participation was performed online. Participants received monetary compensation (10 NIS). In terms of political orientation, 49.4% stated they were Rightists, 29.9% indicated they were Centrists, and 20.7% stated they were Leftists.

### Procedure

Participants were contacted and asked to fill out a questionnaire regarding their attitudes and opinions on social and political issues. This questionnaire included a measure of collective angst as well as socio-demographic information. Approximately 5 months later, participants were recontacted and asked to complete an allegedly separate study. They were randomly assigned to read either the external incentive for negotiating peace or control condition used in Experiment 1.

All participants received a link to a mock news website (for more information on the website see Cohen-Chen, Halperin, Porat, & Bar-Tal, 2014) that contained an ostensibly real article about Palestinian President, Mahmoud Abbas' intention to offer a proposal that

would renew the peace process (this underlying story was created based on relevant, contemporary political events). The mock news website resembled the Israeli website 'YNET', a leading online news website, affiliated with the Jewish Israeli mainstream society. Participants were told that they would be asked to make a decision about whether the peace process should be renewed. To assist in this regard, a number of links to newspaper articles were provided and each link contained the headline for each article. Importantly, the position of the article in relation to the peace process (pro, con, or neutral) was explicit in the headline. Three articles were in favour of renewing the peace process (e.g., 'Clinton: Abbas' proposal is a historic opportunity'), three were against renewing the peace process (e.g., 'Security Specialists: renewing negotiations could lead to a wave of terrorism'), and two did not take a position (e.g., 'What does Abbas' proposal include?'). Importantly, participants were told that acquiring information would help them make an appropriate decision, but that they were not obliged to read any of the news articles provided.

The website was designed to record the number of articles participants entered and the order in which they entered them. It also recorded the amount of time they spent reading each article before returning to the 'home page' and the overall amount of time spent in the website.

### Measures

Five months prior to the experimental session, participants completed a three-item measure of collective angst ( $\alpha = .61$ ) as an emotional sentiment. Items were similar to those used in Experiment 1; however, participants were asked to respond in terms of their general or typical feelings about the future vitality of Israel. Items were anchored at 1 (strongly disagree) and 6 (strongly agree). High scores represented greater levels of collective angst as an emotional sentiment.

During the experimental session, *total time* (in seconds) spent on the website as well as the *overall number of articles* opened by each participant was tracked. We also tracked the number of news articles that participants read that were *in favour* of renewing negotiations as well as the number of news articles that participants read that were *against* renewing negotiations.

After this exercise, participants were asked to indicate their age, gender, and political orientation. As in Experiment 1, the political orientation item was anchored at 1 (extreme right) and 7 (extreme left).

### Results

We excluded one outlier who spent an irregular amount of time on the website (i.e., this participant was 3 *SD* from the average time spent on the website). Means, standard deviations, and simple correlations for all research variables are presented in Table 1.

Multiple regressions were conducted to assess the unique and interaction effects of the manipulation (coded 0 = control and 1 = realistic threat reduction) and collective angst (mean-centred) on the overall time, number of articles read, and number of pro-renewal as well as anti-renewal of negotiation articles read. We also conducted a manipulation  $\times$  collective angst  $\times$  political orientation ANOVA and a manipulation  $\times$  collective angst  $\times$  gender ANOVA on all four information-processing variables.



**Table 1.** Correlations between all measured variables (means and standard deviations on the diagonal): Experiment 2

	Condition	Collective angst	Overall time	Overall number of articles	Pro-renewal negotiations articles	Anti-renewal negotiations articles
Condition	0.51 (0.50)					
Collective angst	-.09	3.44 (0.99)				
Overall time	.24*	-.10	268.95 (256.79)			
Overall number of articles	.22*	-.11	.77*	3.81 (3.05)		
Pro-renewal negotiations articles	.21	-.11	.72*	.97*	1.16 (1.34)	
Anti-renewal negotiations articles	.23*	-.13	.78*	.97*	.91	1.26 (1.33)

Note. \* $p < .05$  (two-tailed).

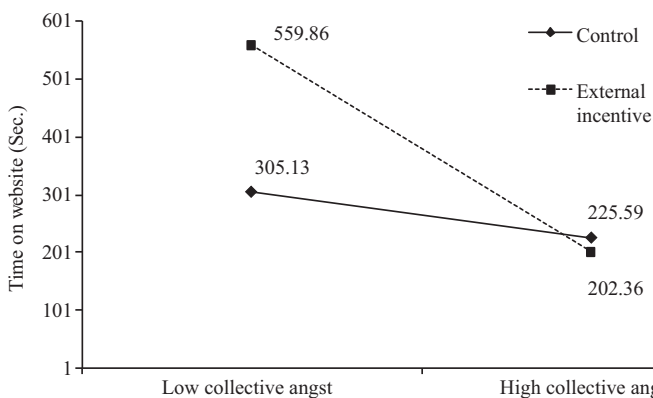
Because the main effect of political orientation and gender was not significant for any of the dependent variables (all  $p$ s for political orientation  $> .64$ , all  $p$ s for gender  $> .57$ ) nor were the interactions between these and any of the other measured variables (all  $p$ s for political orientation  $> .62$ , all  $p$ s for gender  $> .60$ ), we collapsed across both political orientation and gender for all subsequent analyses.

### Overall time spent on the website

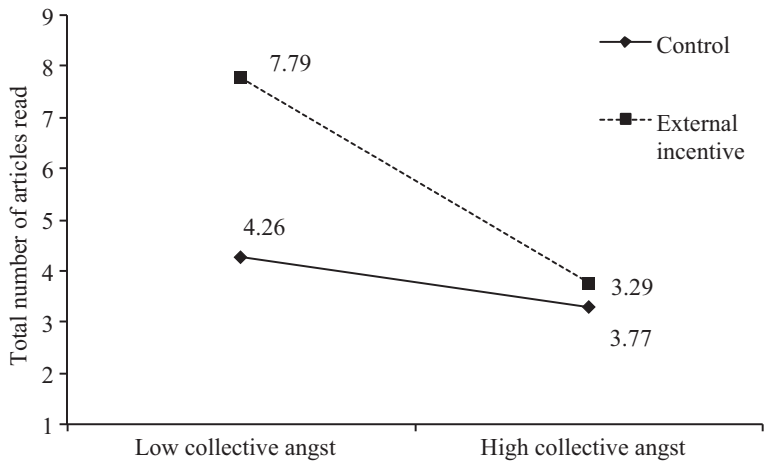
There was a significant main effect of the manipulation variable,  $b = 115.74$ ,  $SE = 55.25$ ,  $p = .04$ ,  $CI (5.70, 225.81)$ , but not collective angst,  $b = -39.77$ ,  $SE = 28.85$ ,  $p = .17$ ,  $CI (-97.23, 17.69)$ . However, there was a significant manipulation  $\times$  collective angst interaction,  $b = -138.99$ ,  $SE = 57.19$ ,  $p = .02$ ,  $CI (-252.93, -25.05)$ . Simple effect analysis of the interaction term indicated that when collective angst was high (+1  $SD$ ), the effect of the manipulation was negligible,  $b = -22.34$ ,  $SE = 79.91$ ,  $p = .78$ ,  $CI (-181.52, 136.85)$ . However, when collective angst was low (-1  $SD$ ), the effect of the manipulation on overall time spent reading was significant and positive,  $b = 253.84$ ,  $SE = 78.59$ ,  $p = .002$ ,  $CI (97.27, 410.41)$ . Specifically, Jewish Israelis who read the external incentive for negotiating peace text and expressed low collective angst spent more time searching and reading information than all other participants (see Figure 1).

### Overall number of articles read

There was a main effect trend of the manipulation variable,  $b = 1.20$ ,  $SE = 0.66$ ,  $p = .08$ ,  $CI (-0.12, 2.52)$ , but not for collective angst,  $b = -0.49$ ,  $SE = 0.35$ ,  $p = .16$ ,  $CI (-1.18, 0.20)$ . However, a significant manipulation  $\times$  collective angst interaction qualified these effects,  $b = -1.52$ ,  $SE = 0.69$ ,  $p = .03$ ,  $CI (-2.89, -0.15)$ . Simple effect analysis of the interaction term indicated that when collective angst was high (+1  $SD$ ), the effect of the manipulation was negligible,  $b = -0.31$ ,  $SE = 0.96$ ,  $p = .75$ ,  $CI (-2.23, 1.60)$ . However, when collective angst was low (-1  $SD$ ), the effect of the manipulation on the number of articles read was significant and positive,  $b = 2.71$ ,  $SE = 0.95$ ,  $p = .005$ ,  $CI (0.83, 4.59)$  (see Figure 2).



**Figure 1.** Manipulation  $\times$  collective angst interaction on overall time spent in seconds on the website: Experiment 2.



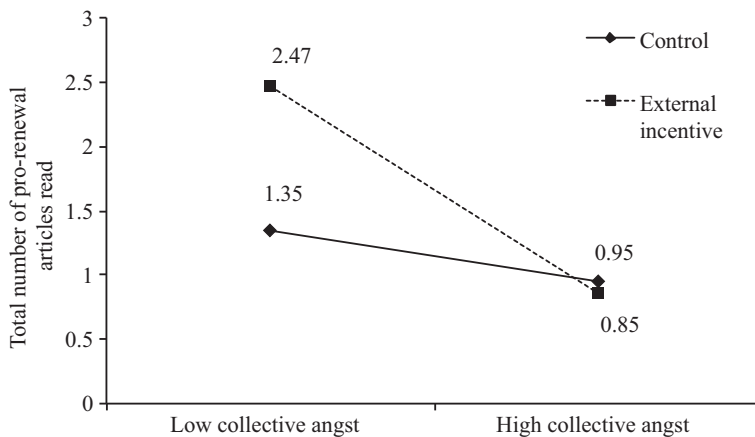
**Figure 2.** Manipulation  $\times$  collective angst interaction on the total number of articles read: Experiment 2.

### **Number of pro-renewal of negotiation articles read**

There was a main effect trend for the manipulation,  $b = 0.51$ ,  $SE = 0.30$ ,  $p = .09$ ,  $CI (-0.08, 1.10)$ , but not for collective angst,  $b = -0.20$ ,  $SE = 0.15$ ,  $p = .20$ ,  $CI (-0.51, 0.11)$ . Importantly, however, there was a significant interaction between the manipulation and collective angst,  $b = -0.61$ ,  $SE = 0.31$ ,  $p = .05$ ,  $CI (-1.22, -0.01)$ . As predicted, when collective angst was high (+1  $SD$ ), the effect of the manipulation was negligible,  $b = -0.10$ ,  $SE = 0.43$ ,  $p = .82$ ,  $CI (-0.95, 0.76)$ . When collective angst was low (-1  $SD$ ), however, the effect of the manipulation on the number of pro-renewal of negotiation articles read was significant and positive,  $b = 1.12$ ,  $SE = 0.42$ ,  $p = .01$ ,  $CI (0.28, 1.95)$  (see Figure 3).

### **Number of anti-renewal of negotiation articles read**

There was a main effect trend for the manipulation,  $b = .55$ ,  $SE = 0.29$ ,  $p = .06$ ,  $CI (-0.03, 1.12)$ , but not for collective angst,  $b = -0.24$ ,  $SE = 0.15$ ,  $p = .11$ ,  $CI (-0.54, 0.06)$ .



**Figure 3.** Manipulation  $\times$  collective angst interaction on number of pro-renewal of negotiations articles read: Experiment 2.

Importantly, an interaction between the manipulation variable  $\times$  collective angst qualified these results,  $b = -0.72$ ,  $SE = 0.30$ ,  $p = .02$ ,  $CI (-1.31, -0.12)$ . As predicted, when collective angst was high (+1  $SD$ ), the effect of the manipulation was negligible,  $b = -0.16$ ,  $SE = 0.42$ ,  $p = .70$ ,  $CI (-1.00, 0.67)$ . When collective angst was low (-1  $SD$ ), however, the effect of the manipulation on the number of anti-renewal of negotiation articles read was significant and positive,  $b = 1.26$ ,  $SE = 0.41$ ,  $p = .003$ ,  $CI (0.44, 2.08)$  (see Figure 4).

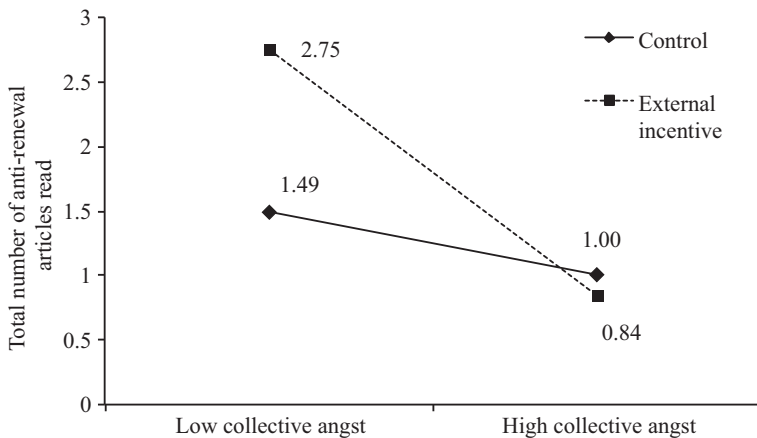
## Discussion

Results of Experiment 2 replicated and extended the results observed in Experiment 1. Importantly, whereas the openness to information measure in Experiment 1 was self-report, in Experiment 2 we had a behavioural measure of openness to information. Also, whereas the content of the information in Experiment 1 focused on the outgroup's general narrative, here we assessed participants' openness to the outgroup's initiatives to promote peace. We also extended the results of Experiment 1 by showing that the external incentive for negotiating peace manipulation effect on openness to information is only present among group members who do not feel concerned for their group's future vitality. Specifically, Jewish Israelis who did not have an emotional sentiment of collective angst showed signs of cognitive unfreezing when an external incentive (i.e., a reduction in the Iranian nuclear threat) was made salient.

Finally, we also showed in the current experiment that the external incentive manipulation motivates people to seek information of any kind and not just pro- or anti-renewal of negotiations information. These results may have implications for the negotiations that might take place during the course of intractable conflicts. There may be a need to reduce feelings of collective angst among members of both conflicting parties to facilitate successful peace negotiations.

## EXPERIMENT 3

The results of Experiments 1 and 2 supported our general hypothesis that cognitive unfreezing among Israeli Jews about the Palestinian–Israeli conflict is most likely when



**Figure 4.** Manipulation  $\times$  collective angst interaction on number of anti-renewal of negotiations articles read: Experiment 2.

peace with the Palestinians is linked to an external incentive for negotiating peace – the reduction of the threat posed by a nuclear Iran. However, it is also possible that unfreezing occurred as a result of a heightened need to make peace in the face of a double-barrelled threat (threats from both the Palestinians and Iran) in the experimental condition and not because of a possible route to avoid a nuclear attack from Iran through peace with the Palestinians. To assess this possibility, in a third experiment, we included an experimental condition that de-linked the Iranian nuclear threat from the Palestinian–Israeli conflict.

Because we were conducting a third experiment, we took the opportunity to include another experimental condition that linked progress in the peace process with a different external incentive related to threat reduction – the threat posed by ISIS militants. We also included an experimental condition that provided Jewish Israelis with an external incentive for information seeking that was positively reinforcing (i.e., increased aid from the United States) as opposed to negatively reinforcing (i.e., reduced intergroup threat).

Lastly, albeit unintentionally, Experiment 3 also allowed us to test whether the effects observed in Experiment 2 could withstand an upswing in the tensions between Palestinians and Israelis. For context, a few days before we planned to initiate data collection for Experiment 3, three Israeli teenagers were kidnapped (and subsequently murdered) – events widely attributed to Hamas in Israel. The general attitude towards the peace process among Israeli Jews was so negative as a result that we decided to postpone the study. We had hoped that the atmosphere might settle down in subsequent weeks. However, 3 weeks later (after the bodies of the three teens were found), Israel launched Operation Protective Edge in the Hamas-ruled Gaza Strip. The fighting with Hamas continued until the end of August 2014, but the socio-political climate between Israelis and Palestinians continued to deteriorate. Indeed, a renewal of attacks by Palestinians inside of Israel was observed, which has led some to describe the situation as the start of a third Palestinian uprising (Intifada; Ben Yishai, 2014). At the time of data collection, Jewish Israelis' belief in the peace process was at an alarmingly low level. In a survey conducted in November 2014 (when data was collected for Experiment 3) by the Israeli Institute for Democracy, 74% of the Jewish Israeli participants said that they do not believe negotiations with Palestinians will lead to peace in the coming years – the highest percentage recorded in recent years among Jewish Israelis (The Peace Index, 2014).

Under heightened intergroup threat, people tend to cognitively freeze and thus shut out any new information, even information that might promote peace (Cohen-Chen *et al.*, 2014). Given the aforementioned environment, we were uncertain whether we would be able to replicate the previously observed results. However, we posited that even if the results did not replicate, important information would be gleaned. To the point, if we were able to replicate the results of Experiment 2, then we would know that the external incentive manipulation could weather a chilly socio-political climate. On the other hand, a failed replication might suggest that periods of high intergroup tension can undermine efforts to unfreeze cognitions.

## Method

### Participants

Participants were selected from a large pool of participants who completed a broad array of pretest measures. Of this sample, 378 were invited to participate in the current study. Recruitment for this study stopped once we reached our desired sample of 206 Jewish Israelis (49.5% Male;  $M_{\text{age}} = 33.96$ ,  $SD = 10.46$ ). Recruitment and participation was performed online. Participants received monetary compensation (10 NIS). In terms of

political orientation, 65.8% stated they were rightists, 16.1% indicated they were centrists, and 18.1% stated they were leftists.

### Procedure and measured variables

The procedure and measured variables – collective angst ( $\alpha = .71$ ) and cognitive unfreezing (i.e., information processing; total time reading, overall number of articles read, number of articles read in favour of renewing negotiations, and number of articles opposed to renewing negotiations) – used in Experiment 3 were identical to those used in Experiment 2, except for two changes. First, the collective angst measure was assessed 2 weeks prior to the cognitive unfreezing measure (as opposed to the 5-week interval used in Experiment 2). Second, we added three new conditions (for a total of five conditions). The first two conditions were identical to those of Experiment 2. Specifically, some participants read that advancement in the peace process with Palestinians would reduce the threat posed by a nuclear Iran, whereas other participants read about the positive effects of coffee (the control condition). The three new conditions were as follows: (1) Participants read about both the Middle East peace process and the United States' commitment to preventing a nuclear-capable Iran, but the issues were presented in an unrelated manner, (2) participants read about how advancement in the peace process would reduce the threat posed by ISIS militants (i.e., a different threat-reducing external incentive for negotiating peace), and (3) participants read about how advancement in the peace process with Palestinians would yield financial benefits from the US (i.e., an external incentive that was positively reinforcing, and not threat based).

## Results

The mean and standard deviation for each measured variable as well as the correlation between all variables are presented in Table 2. As was the case in Experiment 2, there were no main effects or interactions with political orientation,  $ps > .13$ . There were also no main effects for gender,  $ps > .49$ ; however, there were three significant condition  $\times$  gender interactions.<sup>1</sup> Because we had no *a priori* rationale for gender effects, we collapsed across this variable in all subsequent analyses (see Simmons, Nelson, & Simonsohn, 2011).

<sup>1</sup> The first significant interaction appeared when contrasting the Iranian nuclear threat condition with the control condition,  $F(1, 79) = 4.96, p = .02, \eta_p^2 = .05$ . Simple slopes analysis showed that males in the control condition ( $M = 0.72, SD = 1.27$ ) read more articles that were anti-renewal of negotiations than females ( $M = 0.13, SD = 0.62$ ),  $b = -0.59, SE = 0.22, p = .01, CI(-1.04, -0.13)$ , but there were no gender differences in the experimental condition (males:  $M = 0.04, SD = 0.20$ ; females:  $M = 0.16, SD = 0.51$ ),  $b = 0.12, SE = 0.22, p = .58, CI(-0.32, 0.57)$ . The second significant interaction appeared when contrasting the financial incentive condition with the control condition,  $F(1, 78) = 4.13, p = .04, \eta_p^2 = .05$ . Simple slopes analysis showed that males in the control condition ( $M = 0.72, SD = 1.27$ ) read more articles that were anti-renewal of negotiations than females ( $M = 0.13, SD = 0.62$ ),  $b = -0.59, SE = 0.26, p = .03, CI(-1.12, -0.05)$ , but there were no gender differences in the experimental condition (males:  $M = 0.13, SD = 0.63$ ; females:  $M = 0.31, SD = 0.82$ ),  $b = .17, SE = 0.26, p = .50, CI(-0.35, 0.71)$ . The third significant interaction appeared when contrasting all four collapsed experimental conditions with the control condition  $F(1, 197) = 3.48, p = .01, \eta_p^2 = .02$ . Simple slopes analysis showed that males in the control condition ( $M = 0.72, SD = 1.27$ ) read more articles that were anti-renewal of negotiations than females ( $M = 0.13, SD = 0.62$ ),  $b = -0.59, SE = 0.24, p = .01, CI(-1.06, -0.11)$ , but there were no gender differences in the experimental condition (males:  $M = 0.18, SD = 0.66$ ; females:  $M = 0.24, SD = 0.76$ ),  $b = 0.06, SE = 0.12, p = .58, CI(-0.17, 0.30)$ .

**Table 2.** Correlations between all measured variables (means and standard deviations on the diagonal): Experiment 3

	Condition	Collective angst	Overall time	Overall number of articles	Pro-renewal negotiations articles	Anti-renewal negotiations articles
Condition	2.99 (1.38)					
Collective angst	.01	3.45 (1.05)				
Overall time	-.02	-.07	127.68 (104.50)			
Overall number of articles	.03	-.04	.44*	1.54 (1.58)		
Pro-renewal negotiations articles	.02	-.05	.43*	.97*	0.22 (0.72)	
Anti-renewal negotiations articles	.04	-.06	.42*	.94*	.89*	0.21 (0.71)

Note. \* $p < .05$  (two-tailed).

### **Preliminary analysis**

We first examined whether there were differences in the extent to which participants searched for information (overall time, number of articles read, number of pro-renewal and number of anti-renewal of negotiation articles read) across the four experimental conditions. One-way ANOVA revealed no significant differences between any of the conditions on all information processing variables,  $F_s(4, 197) < 1.39, p_s > .23, \eta_p^2_s < .03$  (see Table 3 for a summary of the ANOVA).

### **Main analysis**

Although we found no significant differences in cognitive unfreezing between the experimental conditions, we proceeded to test whether collective angst interacted with our manipulations to influence cognitive unfreezing. To this end, comparisons that contrasted each experimental condition to the control condition (coded control = 0 and tested experimental condition = 1) were created and submitted to separate multiple regressions in which the manipulation, collective angst (mean-centred), and an interaction term were regressed on the overall time, number of articles read, and number of pro-renewal as well as anti-renewal of negotiation articles read. We also conducted a similar analysis in which all experimental conditions were collapsed and compared to the control condition. Across all analyses, only one significant effect was found. There was a significant main effect of condition on time spent reading articles when the ISIS militant threat condition was compared to the control condition,  $b = -68.51, SE = 32.96, p = .04, CI (-134.33, -2.70)$ . Participants in the control condition ( $M = 179.46, SD = 176.43$ ) spent more time reading articles than participants in the experimental condition ( $M = 109.19, SD = 72.54$ ). No significant interactions were found across all analyses,  $b_s < 42.82, SE_s < 40.07, p_s > .11$  (see Table 4 for a summary).

### **Supplemental analysis: Cross experiment comparison of information processing**

As described earlier, we were concerned that the socio-political climate in Israel at the time of data collection for Experiment 3 created an environment in which cognitive unfreezing might be difficult to initiate. One way to assess this possibility is to contrast the amount of information processing (i.e., cognitive unfreezing) observed in Experiment 3 (when relations between Palestinians and Israelis were very tense and the peace process was not perceived to be viable) to the amount observed in Experiment 2 (when tensions were relatively low and the peace process was perceived to be relatively viable). To this end,  $t$ -tests were conducted with experiment (Experiment 2 vs. Experiment 3) as the independent variable and the information processing variables as the dependent variables. As suspected, participants in Experiment 3 showed significantly more cognitive freezing than participants in Experiment 2. Specifically, participants in Experiment 3 in comparison to participants in Experiment 2 spent less time reading the information provided ( $M = 150.59, SD = 142.57$  vs.  $M = 279.71, SD = 281.53, t(149) = 3.53, p = .002, \eta_p^2 = .07$ ), chose to read less articles overall ( $M = 1.51, SD = 1.86$  vs.  $M = 4.02, SD = 3.09, t(158) = 6.26, p < .001, \eta_p^2 = .19$ ), and demonstrated a remarkably lower desire to read pro-renewal of negotiations articles ( $M = .27, SD = 0.84$  vs.  $M = 1.24, SD = 1.35, t(158) = 5.46, p < .001, \eta_p^2 = .15$ ) and anti-renewal of negotiations articles ( $M = 0.24, SD = 0.75$  vs.  $M = 1.35, SD = 1.34, t(158) = 6.46, p < .001, \eta_p^2 = .21$ ).



**Table 3.** Means and standard deviations for measured variables by experimental condition: Experiment 3

	Control	Iranian threat	Peace process (no linkage)	Financial incentive	Islamic State in Iraq and Syria militant threat	All experimental conditions collapsed
Collective angst	3.37 (1.11) <sup>a</sup>	3.45 (1.06) <sup>a</sup>	3.30 (1.04) <sup>a</sup>	3.31 (1.04) <sup>a</sup>	3.67 (.93) <sup>a</sup>	3.43 (1.02) <sup>a</sup>
Overall time	179.46 (176.43) <sup>a</sup>	121.73 (91.51) <sup>a</sup>	158.12 (148.15) <sup>a</sup>	158.16 (192.53) <sup>a</sup>	109.19 (72.54) <sup>b</sup>	179.46 (176.43) <sup>a</sup>
Overall number of articles	1.80 (2.31) <sup>a</sup>	1.23 (1.24) <sup>a</sup>	1.57 (1.70) <sup>a</sup>	1.52 (1.65) <sup>a</sup>	1.56 (2.00) <sup>a</sup>	1.80 (1.47) <sup>a</sup>
Pro-renewal negotiations articles	0.36 (0.99) <sup>a</sup>	0.19 (0.67) <sup>a</sup>	0.25 (0.74) <sup>a</sup>	0.21 (0.68) <sup>a</sup>	0.27 (0.83) <sup>a</sup>	0.36 (0.99) <sup>a</sup>
Anti-renewal negotiations articles	0.39 (0.99) <sup>a</sup>	0.09 (0.37) <sup>a</sup>	0.25 (0.74) <sup>a</sup>	0.21 (0.71) <sup>a</sup>	0.29 (0.93) <sup>a</sup>	0.39 (0.99) <sup>a</sup>

Note. Comparisons in a given row with different superscript letters are significantly different at  $p < .05$ . Numbers in parentheses are standard deviations.

**Table 4.** Interaction (each experimental condition by collective angst) for all dependent variables: Experiment 3

	Overall time spent on the website			Overall number of articles read			Number of pro-renewal of negotiation articles read			Number of anti-renewal of negotiation articles read		
	<i>b</i>	<i>SE</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>p</i>	<i>b</i>	<i>SE</i>	<i>p</i>
Interaction 1	16.92	29.85	.57	0.16	0.38	.67	0.09	0.17	.56	0.19	0.15	.20
Interaction 2	48.01	35.35	.17	0.21	0.43	.61	0.08	0.18	.63	0.15	0.18	.41
Interaction 3	8.15	40.07	.83	-0.09	0.42	.82	0.00	0.17	.96	0.06	0.18	.70
Interaction 4	42.82	32.98	.19	0.19	0.50	.69	0.12	0.21	.57	0.18	0.22	.41
Interaction 5	25.38	24.98	.31	0.11	0.29	.69	0.07	0.12	.53	0.14	0.12	.23

Note. Interaction 1 = Iranian nuclear threat manipulation × collective angst; Interaction 2 = Peace process (no linkage) manipulation × collective angst; Interaction 3 = Financial incentive manipulation × collective angst; Interaction 4 = Islamic State in Iraq and Syria militant threat manipulation × collective angst; Interaction 5 = Experimental conditions collapsed × collective angst.

## Discussion

At face value, the results of Experiment 3 did not align with the results of Experiments 1 or 2. This is because, unlike Experiments 1 and 2, significant differences were not observed between any of the experimental conditions and the control condition. Moreover, unlike Experiment 2, collective angst did not moderate the effects of the external incentive manipulation on cognitive unfreezing. One reason for the lack of significant effects might be the socio-political climate that existed at the time data were collected for Experiment 3.

After a long period of relative calm, there was a renewal of attacks by Palestinians inside of Israel at the time of data collection. This climate yielded a belief among the vast majority of Israelis that peace with the Palestinians was no longer achievable (The Peace Index, November 2014). Research by Cohen-Chen *et al.* (2014) showed that these conditions result in cognitive freezing. In line with this research, we observed an astonishing high level of cognitive freezing across conditions. Information processing in all conditions was very low, especially when compared to the amount of information processing observed in Experiment 2. It is possible that during periods of heightened intergroup tension, cognitive unfreezing is difficult if not unrealistic. It is interesting to note that one significant effect was observed in Experiment 3. Jewish Israelis spent the least amount of time reading articles when first exposed to information that suggested peace with the Palestinians would undermine the threat posed by ISIS militants (compared to any of the other conditions). It is possible that mere mention of ISIS militants – an extremely radical and violent Islamist group currently waging Jihad to establish an Islamic Caliphate that spans territory Israel occupies (see Neer & O’Toole, 2014) – heightened feelings of threat among Jewish Israelis. As shown by Maoz and McCauley (2005, 2009) intergroup threat reduces openness to information. In sum, results for Experiment 3 might be best framed as a demonstration of the limits of external

incentive manipulations for the unfreezing process – when threat levels are naturally high, it is difficult to unfreeze cognitions.

## GENERAL DISCUSSION

In the throes of intergroup conflict, group members tend to demonstrate rigidity of thought and adherence to pre-existing beliefs that closes them to information seeking (Bar-Tal, 2013). Such cognitive freezing results in missed opportunities to gain new perspectives that may lead to compromise and reconciliation (Porat *et al.*, 2015). In the current research, we hypothesized that cognitive unfreezing will be observed (i.e., people will engage in information seeking) when an external incentive for negotiating peace is presented. However, we also argued that cognitive unfreezing in this situation will only occur among people who are not extraordinarily concerned with the ingroup's future vitality – they are low in collective angst.

Within the context of the Palestinian–Israeli conflict, we showed that an external incentive for peace (i.e., making peace with the Palestinians would reduce the Iranian nuclear threat) led to self-reported openness to information about the Palestinian narrative (Experiment 1). This effect was then replicated and extended using a behavioural measure of information seeking (Experiment 2). Importantly, we also showed (Experiment 2) that the cognitive unfreezing utility of an external incentive for negotiating peace was most likely to be observed among Jewish Israelis who were low in collective angst. Indeed, participants in the external incentive who were low in collective angst spent the greatest amount of time reading news articles about the proposal by Palestinian President Abbas to renew peace negotiations with Israel. They also read the greatest number of newspaper articles regardless of content. We argue, as do others (Wohl *et al.*, 2012), that people who are low in collective angst do not feel the need to shield the ingroup from potential harm – they are secure enough to open themselves to search for alternative information that might even further reduce the threat. Thus, low collective angst may contain the seeds for cognitive unfreezing.

We caution, however, against making a strong inference about the social change value of providing an external incentive for negotiating peace. This is because intergroup threat is easily heightened during an intractable conflict, which increases cognitive freezing (see Maoz & McCauley, 2005, 2009). Indeed, the null effects observed Experiment 3 – an experiment designed to replicate and extend the results observed in the previous two experiments – provided a sobering reminder about how difficult it is to advance peace within the context of an intractable conflict. We suggest the lack of observed cognitive unfreezing (or perhaps more accurately the amount of cognitive freezing observed) is likely the result of the broader socio-political climate that existed at the time data for Experiment 3 were collected – a climate replete with intergroup threat. Indeed, at the time data were collected, belief in the peace process was at a low not seen in years (if not decades). In such an environment, cognitive freezing becomes especially difficult to thaw (see Cohen-Chen *et al.*, 2014). We do not discount the possibility that Experiment 3 simply speaks to a weak manipulation that does not have sufficient power to unfreeze cognitions with statistical regularity. However, we believe that the more parsimonious explanation is that rough socio-political waters undermined the power of the external incentive manipulation to yield cognitive unfreezing. We make this contention based, in part, on the remarkably low amount of information processing observed across conditions in Experiment 3 – an

amount that comes into sharp focus when compared to the amount of information processing observed in Experiment 2. To unfreeze cognitions, there must be belief that a negotiated peace is possible.

### **Implications and limitations**

This research may have both basic and applied implications for intergroup relations generally and the attenuation of intractable conflicts more specifically. As demonstrated by Halperin and Bar-Tal (2011), one of the barriers to resolution of intergroup conflict is the tendency of group members to cognitively freeze on their pre-existing and predominant beliefs. Our results not only suggest a possible route to unfreeze cognitions (external incentives for negotiating peace), but also who might be most likely to unfreeze (those who have a low emotional sentiment of collective angst). However, our results also suggest a possible limit and boundary of the unfreezing process – a heated socio-political climate.

According to integrated threat theory (Stephan & Renfro, 2002), an appraisal of realistic threat (i.e., a threat that poses a real danger to the ingroup) can lead to frustration, contempt, and insecurity – all manifested in cognitive freezing. When realistic threat can be reduced or eliminated, people do not need to focus as much energy on the protection of their beliefs and resources. In fact, people may become motivated to engage in cooperative behaviours like gaining judgments that are more accurate, which can contribute to efficient and unbiased decision-making abilities (see Nguyen & Ryan, 2008; Walton & Cohen, 2003). The perceived presence of a realistic threat (as well as symbolic threat), however, is at the heart of collective angst (as observed in Experiment 2; see also Jetten & Wohl, 2012; Wohl *et al.*, 2010), and thus, periods of high intergroup tensions are the seeding ground for collective angst becoming an emotional sentiment (Dupuis *et al.*, 2015). In this light, the high intergroup tensions that existed during data collection for Experiment 3 might be responsible for the frozen cognitions observed (in all conditions).

This begs the question, is it possible to unfreeze those high in collective angst or unfreeze people during periods of high intergroup tension? Needed may be a declaration from the adversary group of their ingroup's right to exist, as this would help assuage concerns that the outgroup is seeking annihilation of the ingroup. However, it should also be noted that the low collective angst picture may not always be rosy for the promotion of cognitive unfreezing. That is, low levels of collective angst may not always lead to cognitive unfreezing when threat reduction is possible. According to Klar, Kahn, and Roccas (2012), some members hold the belief that their group is an eternal entity (i.e., it will exist in perpetuity). People who possess such a belief are willing to suffer pain today for the sake of the interests of future generations. Such people are likely to have low levels of collective angst as well as have little motivation to seek information to end the conflict – they can simply 'wait out' the adversary group.

Lastly, the cognitive unfreezing assessment used in Experiments 2 and 3 did not allow for a direct determination of whether participants in the external incentive condition(s) have stronger inclinations towards peace. It is possible that interest in reading material on the peace process may be triggered in those who are least motivated to engage in the peace process. With that said, a lack of a desire for information about peace opportunities (i.e., cognitive freezing) has been shown to be associated with feelings of despair (Cohen-Chen *et al.*, 2014) as well as with perceptions of intergroup threat (Halperin *et al.*, 2013), which are typically experienced by people who lack an inclination towards peace (see Halperin & Bar-Tal, 2011; Maoz & McCauley, 2005, 2009). Thus, the external incentive–

cognitive unfreezing link is most likely to be observed among those who do not have an inclination for peace. If this is the case, there may be some social change value in highlighting external incentives for negotiating peace. However, more empirical work is needed and thus, we are guarded in drawing implications for advancing openness to the peace process from the research presented herein.

### Conclusion

In order to promote intergroup reconciliation, group members must be open to new information related to new opportunities for peace. Yet, in long-term conflicts, due to various motivational, epistemic needs, and increased intergroup tensions, group members tend to be closed-minded and not pay attention to new information, even when such information can potentially promote peace. The current findings show that this cognitive freezing process is not definitive. Unfreezing may be possible when the right messages (e.g., external incentives for negotiating peace) are conveyed to the right people (e.g., those with low level of collective angst), in the right social-political climate (i.e., when intergroup tensions are not at their height).

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### Supporting Information

The following supporting information may be found in the online edition of the article:

**Appendix S1.** Materials used for Studies 1–3.