

RESEARCH ARTICLE

How I learned to stop fearing: Ideological differences in choice of reappraisal content

Racheli Cohen* , Ruthie Pliskint & Eran Halperin*

* Ivcher School of Psychology, Interdisciplinary Center Herzliya, Herzliya, Israel

† Department of Social and Organisational Psychology, Leiden University, Leiden, The Netherlands

Correspondence

Eran Halperin, Ivcher School of Psychology,
Interdisciplinary Center Herzliya,
P.O.Box 167, Herzliya 4610101, Israel.
E-mail: eran.halperin@idc.ac.il

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All data and questionnaires are stored at the PICR lab's page in the OSF (open science framework) website: osf.io/gwq52.

Abstract

In down-regulating intergroup fear, an intense emotion common to intractable intergroup conflicts, people may employ various fear-reducing appraisals. Adopting a motivated reasoning perspective, we posited that the contents of individuals' ideological beliefs influence the contents they employ to down-regulate fear, with rightists preferring ingroup-empowering content and leftists preferring outgroup-weakening content. In Study 1, rightists (vs. leftists) reported greater use of ingroup-empowering reappraisal to down-regulate fear, but no differences emerged in the use of outgroup-weakening reappraisal. Study 2 manipulated the contents' perceived instrumentality in reducing fear, to examine this as an alternative mechanism. Perceived instrumentality influenced participants' behavioral content preferences ahead of a fear induction, but the manipulation did not mitigate the right-left differences in ingroup-empowering reappraisal use once participants were confronted with the stimulus, replicating Study 1. Study 3 extended these findings, identifying ideological differences in two additional fear-reappraisal themes and in the attitudinal outcomes of fear regulation.

Keywords: fear, emotion regulation, reappraisal, ideology, intergroup conflict

Intergroup conflicts arise when groups decide to act against one another in order to achieve their goals in light of a disagreement (Bar-Tal & Halperin, 2013). Such conflicts give rise to complex socio-psychological dynamics, which can severely hinder efforts to resolve the underlying disagreement (Fitzduff & Stout, 2006; Kelman, 1997). These dynamics, known as sociopsychological barriers to conflict resolution, inhibit the penetration of new information—information that could have otherwise promoted peacemaking (Bar-Tal & Halperin, 2011; Ross & Ward, 1995). Addressing these barriers is thus critical to any conflict resolution effort, and emotional barriers may be especially important, because emotions are powerful motivators and highly dynamic phenomena (for a review, see Halperin, 2016).

Emotions have been identified as highly central in intergroup conflicts, partially because individuals experience emotions in response to events affecting members of their group, even without being directly involved themselves (Mackie, Devos, & Smith, 2000;

Wohl, Branscombe, & Klar, 2006). Particularly important in the context of intergroup conflicts are intergroup emotions (Smith, Seger, & Mackie, 2007), stemming from one's identification with a group and targeted at another group or its members. Because these emotions are experienced by the individuals, they influence their reactions to new information, their political views, and their support for policies (Mackie et al., 2000).

While often automatic, emotions can also be regulated in accordance with personal motivations to achieve various long- and short-term goals (Tamir, 2009). According to the hedonic approach, preferences for pleasure over pain motivate individuals to increase pleasant emotions and decrease unpleasant emotions (Tamir, Mitchell, & Gross, 2008). Nonetheless, emotions also have instrumental functions, which can motivate individuals to experience even unpleasant emotions because of the goals they serve (Izard, 1990; Keltner & Gross, 1999; Tamir, 2016).

Of the many group-based emotions central to intergroup conflicts, among the most prominent is fear. Fear, a subjective primary aversive feeling, arises when one perceives threat or danger to oneself or one's group (Gray, 1987; Öhman, 1993) and does not feel

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able to adaptively deal with that threat (Roseman, 1984). It includes both physiological and psychological reactions aimed at increasing survival capabilities (LeDoux, 1995; Öhman, 1993). Accordingly, fear sensitizes people to threatening cues, leading them to emphasize information about potential threats and overestimate them (Gray, 1987). Motivationally, fear leads to behaviors aimed at reducing the perceived threat and increasing coping capabilities, congruent with both of its appraisals (Frijda, Kuipers, & ter Schure, 1989).

In intractable conflicts, fear is known to increase support for aggression (for a review, see Halperin, 2016), lead to more right-wing positions (Hirschberger & Pyszczynski, 2011), and promote risk-averse political tendencies (Sabucedo, Durán, Alzate, & Barreto, 2011). Additionally, fear can lead to mistrust, de-legitimization of the outgroup, and a collective freezing of beliefs concerning ways of coping with danger (Bar-Tal, 2001; MacKay, Masrani, & McKiernan, 2006). Moreover, fear promotes rejection of positive information about the opponent and opposition to various conflict-resolution-promoting measures (Halperin, 2011; Sabucedo *et al.*, 2011). In intergroup conflicts, the feeling of fear often leads to a fight response, which becomes habituated based on past experience. For these reasons, people living in intractable conflict commonly deal with threat aggressively, instead of considering different courses of action that may break the cycle of violence (Brubaker & Laitin, 1998; Lake & Rothchild, 1996; Petersen, 2002).¹

Due to overwhelming evidence of its potential negative impact, coupled with the unpleasantness of experiencing it, it is important to understand how people reduce, or regulate, their fear. To this end, it is useful to draw on the literature on emotion regulation, a process that occurs when one tries to alter the emotion that she/he or others feel or express (Gross, 1998). Different strategies may be employed to this end, categorized into five different families: situation selection, situation modification, attention deployment, cognitive change, and response modulation (Gross & Thompson, 2007). Reappraisal, a prominent and frequently examined form of cognitive change, refers to altering one's interpretation of a situation in a manner that changes its emotional impact (Gross, 1998). Importantly, reappraisal has been found to positively affect people's experience of emotions and their resulting implications (for a review, see Gross, 2014). In the context of intractable conflict, Halperin and Gross (2011) found that the more Jewish Israelis employed reappraisal to regulate their negative emotions during wartime, the more they supported providing humanitarian aid to Palestinians. In follow-up research,

participants prompted to use reappraisal felt less negative emotions towards Palestinians (Halperin, Porat, Tamir, & Gross, 2013; Halperin, Pliskin, Saguy, Liberman, & Gross, 2014) and supported more constructive intergroup policies (Halperin *et al.*, 2013; Halperin *et al.*, 2014).

While reappraisal has not been studied specifically with regard to intergroup fear, there are reasons to believe reappraisal may be relevant to reducing fear in different ways in intractable conflicts. Because intergroup fear is the result of subjectively weighing two appraisals—perceived threat from the outgroup and low estimated ingroup coping abilities (Roseman, 1984)—it stands to reason that in order to reappraise fear-inducing experiences, people can reframe these experiences using either or both of these dimensions. Namely, to target the appraisal of perceived intergroup threat, an individual can diminish the power or negative intentions she/he perceives in the outgroup. To target instead the appraisal of low coping abilities, an individual can increase the coping power she/he perceives in her/his ingroup. Recognizing these two options, in the current research we seek to understand whether individuals differ in preferences for specific reappraisal *contents* when trying to down-regulate fear, and whether these differences relate to the contents of their long-term beliefs.

When it comes to the socio-political context, many of an individual's long-term beliefs are coherently contained in her/his ideology, defined as an interrelated set of attitudes, values, and beliefs that also has affective and motivational properties (Jost, Federico, & Napier, 2009). Ideology is considered to persistently influence both policy support and short-term responses to new stimuli in general (e.g., Altemeyer, 1996; Jost *et al.*, 2009), as well as in the specific context of intractable conflict (Bar-Tal, 2013). The content of these beliefs is highly important to emotional processes, as their content feeds the appraisal processes on which emotions depend.

Most research to date has seen fear and threat as related to rightist, conservative ideology (e.g., Block & Block, 2006; Jost & Amodio, 2012; Jost *et al.*, 2009; Lilienfeld & Latzman, 2014; Oxley *et al.*, 2008), but recent research has revealed more complex relations among ideology, fear, and threat (e.g., Choma & Hodson, 2017; Crawford, 2017; Pliskin, Sheppes, & Halperin, 2015; Proulx & Brandt, 2017). For example, whereas much research has found ideological rightists to experience more threat and higher levels of fear than leftists from ideologically conflicting outgroups (Feldman & Stenner, 1997; Jost, Glaser, Kruglanski, & Sulloway, 2003; Kossowska, Bukowski, & Van Hiel, 2008), recent work has found leftists to experience more threat than rightists from political and social events that challenged liberal values (Elad-Strenger & Shahar, 2017). According to this approach, perceived threat activates current worldviews, such that conservatives worry more about collective well-being and liberals worry more about individual freedoms and

¹Despite the extensive evidence of the destructive potential of fear, under certain circumstances group-based fear can actually promote conflict resolution (see Gayer, Landman, Halperin, & Bar-Tal, 2009; Halperin, Porat, & Wohl, 2013 for further discussion).

well-being (Burke, Kosloff, & Landau, 2013; Feldman & Stenner, 1997; Greenberg, Simon, Pyszczynski, Solomon, & Chatel, 1992; Stenner, 2005). Interestingly, ideology has also been found to influence the intensity of emotional reactions and the strategy (but not the content) people choose in regulating emotions (Pliskin, Halperin, Bar-Tal, & Sheppes, 2018).

We suggest that one's long-term beliefs or ideology can also be related to the selection of reappraisal content. Rightist ideology is frequently associated with blind patriotism (Bar-Tal, 2013), a form of national attachment characterized by unquestioning ingroup love, allegiance, and intolerance of criticism (Schatz, Staub, & Lavine, 1999). Moreover, conservatism is associated with preference for maintaining a stable social order (Jost *et al.*, 2003) and higher support for competitive foreign policies (Binning, 2007). On the other hand, liberalism is associated with greater tolerance of ambiguity and uncertainty (Jost *et al.*, 2009; Rokeach, 1960; Tetlock, 1983), a stronger tendency to support structural change towards more social equality (Jost *et al.*, 2003), and greater trust in people in general (Binning, 2007).

In light of these ideological differences in the content of long-term beliefs, we assume that people would prefer content that echoes their pre-existing views when reappraising emotion-inducing information. This assumption relies on insights from the classical literatures on confirmation bias and cognitive dissonance. Hyman and Sheatsley (1947) found that people seek information consistent with their preexisting views, while avoiding inconsistent information. Relatedly, Festinger's (1957) cognitive dissonance theory contends that people resist even considering information that is inconsistent with their preexisting views, so as to avoid the negative feeling associated with holding several inconsistent cognitions at once. Accordingly, the literature on motivated reasoning specifically argues that when people wish to arrive at a certain conclusion, they construct logical justifications for it and actively search for support for the desired conclusion (Kunda, 1990). Political judgments are no exception, with individuals reasoning about them in ways that maintain their preexisting views. This motivated information-processing involves selectively attending to, ignoring, or distorting information to support existing beliefs (Kunda, 1990; Mercier & Sperber, 2011).

We suggest that when presented with threat, most people in most cases, regardless of their ideology, will try to down-regulate their resulting fear. When choosing the dimensions for reappraisal, however, we expect ideological rightists and leftists to favor different kinds of content. More specifically, rightists should be more likely to prefer reappraisal content that empowers the ingroup, consistent with their tendency to glorify their ingroups and support aggressive measures in the context of intractable conflict. Conversely, leftists should be more likely to prefer reappraisal content that reduces the perceived threat from the outgroup,

consistent with their tendency to trust others and support peaceful conflict resolution. Such right-left differences in reappraisal content preferences would stem from a will to avoid the aversive experience of dissonance between long-term beliefs and momentary appraisals of the threatening situation.

The Present Research

In the present project, we aimed to understand the relationship between ideology and different reappraisal content preferences, examine whether this relationship is influenced by the perceived instrumentality of different types of content in reducing fear, and investigate how these differences relate to the attitudinal outcomes of fear. First, we wanted to see whether right-left differences in content preferences (capability-increasing vs. threat-reducing content) would emerge. Next, we wanted to examine two different possible mechanisms behind these differences: the contents' concordance with existing ideological beliefs versus its perceived instrumentality for fear regulation. Specifically, we wanted to see whether participants favor reappraisal content perceived as effective in reducing fear even if employing it mandates considering ideology-incongruent content. Finally, we wanted to understand how the use of different reappraisal contents translates into differential endorsement of constructive and destructive intergroup attitudes.

We examined these questions in three studies carried out in the context of the Israeli-Palestinian conflict, widely recognized as a prototypical example of an intractable conflict (Bar-Tal, 2013). In Study 1, we examined the relationship between ideology and two different types of reappraisal content (ingroup-empowerment vs. outgroup-weakening) among Jewish Israelis trying to reduce fear stemming from perceived threat from Palestinians. Study 2 was designed, in part, to extend the findings of Study 1, adding a behavioral examination of differences in reappraisal content preferences. Our main goal in Study 2, however, was to examine the role of instrumentality considerations in determining these preferences, by manipulating the contents' perceived instrumentality. Finally, the goal of Study 3 was to examine ideological differences in the use of two additional reappraisal themes (non-militaristic ingroup-empowerment and low outgroup support for violence) and identify possible differences in the outcomes of employing different reappraisal contents.

Study 1: Demonstrating Ideology's Relation to Content of Reappraising Fear-Inducing Stimuli

Study 1 aimed to examine the relationship between ideology and the use of different types of reappraisal content for intergroup fear regulation in the context

of intractable conflict. The decades-long Israeli–Palestinian conflict, which continues to take a physical and psychological toll on both sides, is rife with intergroup fear experiences (see Halperin, 2016), providing a fitting setting for our research. The prevalence of fear in this context allowed us to examine the relationship between ideology and fear reappraisal contents relating to real-world events, rather than in response to stimuli contrived in the lab.

We predicted that rightists would be more likely than leftists to reappraise a fear-inducing stimulus in a manner that empowers their ingroup, consistent with their greater tendency for ingroup glorification. Similarly, we predicted that leftists, by virtue of their own beliefs, would be more likely than rightists to reappraise this stimulus by diminishing the outgroup's perceived power. In employing these different contents, participants could reinforce their current ideological beliefs, thus avoiding dissonance. We examined our hypotheses by presenting participants with a fear-inducing video highlighting an intergroup threat, to examine the relationship between participants' ideology and the reappraisal themes they employ to down-regulate their resulting fear.

Method

Participants. A power analysis specifying moderate effect size ($\eta^2 = 0.2$) and 0.95 power yielded a recommended total sample size of 111, leading us to recruited 109 Jewish-Israeli students (77 females, ages 20–31, $M = 24.32$, $SD = 2.68$) in exchange for course credit. In terms of ideology, 31.2% identified as rightists, 22% as centrists, and 46.8% as leftists.

Procedure and measures. Participants gave their informed consent and then watched a short video edited to highlight the fear posed by Hamas to Israel. They received no instructions prompting them to regulate their emotions before first seeing the video, but measures included after the video for exploratory purposes (for details, see Appendix A) included an open-ended question asking them how they tried to cope with their resulting fear (see Appendix B).

To ensure the video served its fear-inducing purpose, we conducted an experimental pilot study ($N = 61$, ages 21–63, $M = 27.8$, $SD = 10.54$) in which participants were randomly assigned to either watch the fear-inducing-video (facilitating a “post” measurement of fear) or a neutral-content video (i.e., a gardening tutorial, facilitating a “pre” measurement) used as a control condition. After watching the video, participants rated their fear levels on a single scale (ranging from 1 = “not at all” to 6 = “very much so”). An independent-samples *t*-test compare fear in the two conditions yielded a significant difference, with participants in the fear-inducing video condition ($M = 3.1$, $SD = 1.39$) experiencing more fear than those in the

control condition ($M = 1.03$, $SD = 0.18$), $t(59) = -8.17$, $p < .001$.

Next, participants were instructed to re-watch the video while trying to reduce their fear by explaining the video's content to themselves in a different, less fear-arousing manner—i.e., engaging in cognitive reappraisal. Subsequently, participants responded to questions the ways they reduced their fear. We assessed employment of different types of *fear reappraisal content* using a 15-item measure, comprising groups of five items tapping into each of three types of emotion regulation: ingroup-empowering reappraisal (e.g., “I told myself Israel has a strong army and the ability to successfully combat any threat”, Cronbach's $\alpha = .87$); outgroup-weakening reappraisal (e.g., “I told myself the Palestinian don't have any real ability to hurt me”, Cronbach's $\alpha = .76$); and distraction (e.g., “I tried to ignore the images presented in the video”, Cronbach's $\alpha = .86$). These distraction items were included strictly as filler items, to mask the questionnaire's focus and make the reappraisal-types dichotomy less evident. Participants rated each item on a six-point scale ranging from 1 = “not at all” to 6 = “very much so”.

Finally, participants completed a short demographic questionnaire, covering sex, age, religiosity, relative household income, and previous party vote (all included for exploratory purposes), as well as self-reported ideology (anchored at 1 = “extreme right” and 7 = “extreme left”). The ideology measure was recoded into three categories: rightists (comprising self-identified moderate to extreme rightists), centrists, and leftists (comprising self-identified moderate to extreme leftists). To ensure the three modes were differentiated, we included all items in an exploratory factor analysis using Promax rotation. As intended, the items loaded on three factors (for details, see Appendix C).

Results and Discussion

First, we examined the means, standard deviations, and correlations among our variables (see Table 1). Fear was positively correlated with both ingroup-empowering reappraisal and distraction, but not with outgroup-weakening reappraisal. Fear was also correlated with ideology, such that rightists experienced more fear than leftists before actively regulating their emotions. Finally, ideology was negatively correlated with ingroup-empowering content, indicating that rightists used this content more than leftists.

Next, we turned to examine ideological differences in the use of each type of reappraisal content. We conducted a two-way mixed-design analysis of variance (ANOVA) examining the interactive effect of ideology (Right, Center, and Left) as a between-subject variable and type of reappraisal (ingroup-empowering reappraisal and outgroup-weakening reappraisal) as a within-subject variable on the tendency to employ reappraisal (for descriptive statistics of reappraisal

Table 1. Means, standard deviations, and Pearson Correlations among different variables in Study 1

	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Level of fear	3.40	1.33	1.00	–	–	–	–
2. Ideology	4.17	1.35	-.20*	1.00	–	–	–
3. Ingroup empowering reappraisal	3.45	1.40	.23*	-.53**	1.00	–	–
4. Outgroup- weakening reappraisal	2.51	1.11	.06	-.18	.56**	1.00	–
5. Distraction	2.41	1.36	.46**	-.20*	.07	.02	1.00

Notes: * $p < .05$.

** $p < .01$.

content preferences by ideology, see Table 2).² The analysis revealed a significant main effect for type of content on the tendency to employ it, with participants employing ingroup-empowering reappraisal more than outgroup-weakening reappraisal, $F(1,106) = 86.59$, $p < .001$, $\eta^2 = 0.45$. There was also a significant main effect for ideology, $F(2,106) = 7.9$, $p = .001$, $\eta^2 = 0.13$, and post-hoc comparisons using a Bonferroni correction revealed that leftists generally used reappraisal less than rightists ($p = .001$) and centrists ($p = .04$), who did not differ from one another ($p = 1.0$).³

Finally, as we hypothesized the reappraisal content \times ideology interaction was significant, $F(2,106) = 12.94$, $p < .001$, $\eta^2 = 0.2$ (see Figure 1). An analysis of simple effects for ingroup-empowering reappraisal indicated that leftists used this content less than rightists (*mean difference* = -1.49 , $SE = 0.28$, $p < .001$, $[CI] = [-2.04, -0.94]$) and centrists (*mean difference* = -0.86 , $SE = 0.31$, $p = .01$, $[CI] = [-1.47, -0.25]$). Rightists and centrists differed from one another only to a marginally significant extent, with rightists using it more (*mean difference* = 0.63 , $SE = 0.33$, $p = .06$, $[CI] = [-0.03, 1.29]$). Contrary to our other hypothesis, however, we found no significant ideological differences in the use of outgroup-weakening reappraisal (leftists-rightists *mean difference* = -0.27 , $SE = 0.24$, $p = .28$, $[CI] = [-.75, .22]$; leftists-centrists *mean difference* = -0.42 , $SE = 0.27$, $p = .12$, $[CI] = [-0.97, 0.12]$; rightists-centrists *mean difference* = -0.16 , $SE = -0.29$, $p = .59$, $[CI] = [-0.74, 0.43]$).

The above findings indicate that, in accordance with our hypothesis, people with different ideologies differ in the contents they employ to regulate their fear in the context of intergroup conflict. Our findings reveal

²Distraction items were designed as filler items and were thus excluded from the main analysis. An exploratory one-way ANOVA revealed no ideological differences in the frequency of using distraction ($F(2,106) = 1.55$, $p = 0.22$, $\eta^2 = 0.03$).

³Because fear was significantly correlated with the use of ingroup-empowering content, we repeated the analysis while adjusting for fear. Results remained essentially unchanged and are reported in full in Appendix D.

Table 2. Means and standard deviations of reappraisal content preferences in Study 1, by ideology

	Ingroup-empowering reappraisal	Outgroup-weakening reappraisal	Total
Right	4.28 (1.09)	2.60 (1.09)	3.44 (0.18)
Center	3.66 (1.27)	2.76 (0.98)	3.21 (0.21)
Left	2.79 (1.33)	2.33 (1.17)	2.56 (0.15)
Total	3.58 (0.12)	2.56 (0.11)	3.07 (0.10)

ideological differences in the use of ingroup-empowering reappraisal, such the more rightist people are, the more they use this content. Additionally, findings indicate less use of outgroup-weakening reappraisal overall, but there were no ideological differences in the employment of this content. Nonetheless, because these indications are only correlational, we cannot identify the mechanism behind the results we found. Furthermore, these indications stem strictly from self-report measures of reappraisal use. With these limitations in mind, we conducted an additional study to experimentally test the hypothesized motive to regulate fear in a form consistent with the content of ideological beliefs against an alternative potential motive, to most effectively regulate fear. If the latter constitutes the mechanism, people would prefer the most instrumental strategy even at the cost of using less ideology-congruent contents. Study 2 was also designed to behaviorally examine the motivation to employ different contents.

Study 2: The Effect of Instrumentality Motivations on Ideological Differences in the Content of Fear-Reducing Reappraisal

With the shortcomings of Study 1 in mind, in Study 2 we wanted to examine whether the ideology-reappraisal content relationship is dependent on the perceived instrumentality of different contents. To this end, we manipulated the contents' perceived instrumentality, in the form of recommendations from past participants. We had two competing predictions regarding the nature of this influence: (i) participants will act in accordance with the *instrumental approach* (Tamir, 2009), preferring the content they are made to believe is most effective in regulating their fear; or (ii) participants will act in accordance with the *motivated reasoning approach* (Kunda, 1990), preferring the content that is most consistent with their ideological beliefs. Study 2 also included a behavioral assessment of participants' content preferences, complementing the self-report approach employed in Study 1.

Method

Participants. We recruited 171 volunteer Jewish Israeli participants (97 females, ages 18–67, $M = 30.56$, $SD = 11.76$) using an online participant panel company. This number was based on a power analysis

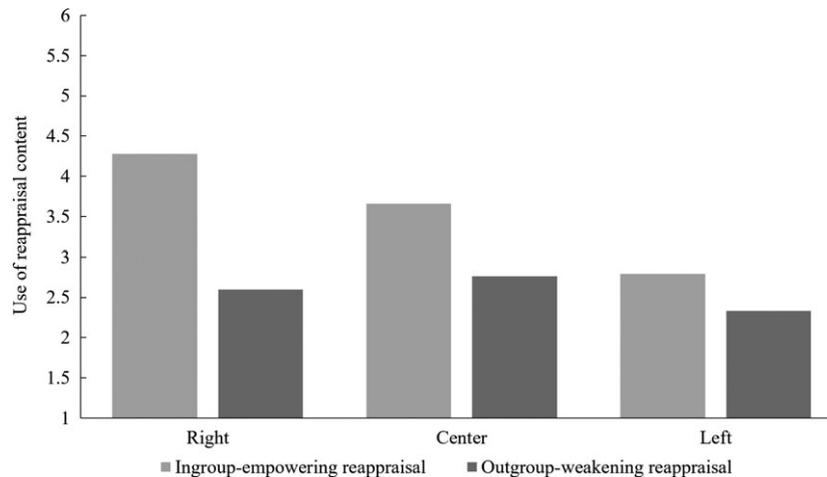


Fig. 1: The interactive influence of ideology and type of reappraisal content on the tendency to use each type of content in Study 1

specifying medium effect size ($\eta^2 = 0.05$) and .95 power, yielding a recommended total sample size of 102. We sampled a larger number of participants under the assumption that some would be excluded for failing a reading check. In terms of ideology, 41% of participants identified as rightists, 25.7% as centrists, and 33.3% as leftists.

Procedure. After giving their informed consent, participants were told that they are about to watch a video about Hamas, which had frightened previous participants. To manipulate the perceived instrumentality of reappraisal contents, participants were also told that previous participants wrote recommendations based on their experience of what helped them reduce their fear while watching the video. Each participant read three contrived recommendations. The first, held constant across conditions, described distraction rather than reappraisal (i.e., “I tried to think of something else while watching the video, and ignore the pictures that were presented”), to mask the study’s real goal. In the ingroup-empowering condition, participants then read two recommendations tapping into contents emphasizing ingroup strength (e.g., “In order to reduce my fear, I told myself over and over that Israel has a strong army and the ability to combat any threat. Ultimately, we’ve fought them many times in the past and won”). Conversely, in the outgroup-weakening condition, the two additional recommendations tapped into contents emphasizing the outgroup’s weakness (e.g., “In order to reduce the fear I felt, I told myself that in the last confrontation Hamas suffered a heavy blow, and they are too weak and afraid to confront us again”). To ensure participants read the recommendations, they were then prompted to summarize the two recommendations they found to be most helpful. A review of participants’ open-ended responses revealed no expressions of doubt and indicated that the selected pieces of advice were seen as helpful, as participants easily justified their choices (e.g., “I chose this because it is optimistic and encouraging”; “I chose this because

it calms me, strengthens me, and does not decrease my motivation and morale”).

Following the manipulation, we used a behavioral index (see Porat, Halperin, & Tamir, 2016) to measure participants’ motivation to employ different types of reappraisals. Participants read that previous studies suggest that reading articles on security issues helps in processing frightening information and that they would therefore be given an opportunity to read articles after viewing the frightening video, but that the time they would have to do so is limited. Participants were then presented with six headlines and asked to rank them in order from the article they would most want to read after the video to the one they would least want to read. They were told that the limited time would allow them to read only their top choices.

Next, as in Study 1, participants were asked to watch the frightening video about Hamas and instructed to try to reduce their experience of fear through reappraisal. After watching the video, they reported their levels of fear, responded to the Study 1 measures of reappraisal content, and completed the same demographic questionnaire used in Study 1. Finally, after participants completed the questionnaire, they were fully debriefed, including an explanation that the headlines they read were fabricated for research purposes, and they would therefore not be given any articles to read.

Measures. To assess whether participants understood the different conditions in line with the manipulation’s aim, we included a *manipulation comprehension check*: Participants were asked to select and summarize two of the three recommendations they received. Responses were coded by two independent raters, who first indicated whether each summary pertained to ingroup-empowerment or outgroup-weakening reappraisal, and then compared these indications with each participant’s condition, to specify whether they were congruent or incongruent with the intended experimental condition. Incongruent responses were

flagged, to facilitate exclusion of participants who did not interpret the recommendation as intended.

We included a *headline ranking task*, intended as a behavioral measure of reappraisal preferences. Participants were asked to rank six different headlines from the one they would most like to read (1) to the one they would least like to read (6) after watching the video. Half of the headlines reflected ingroup-empowering reappraisal content (e.g., “The Institute for National Security Studies has ranked the Israeli army as the strongest army in the Middle East”), and half reflected outgroup-weakening reappraisal content (e.g., “Senior Hamas official: ‘Since Operation Protective Edge, Hamas hasn’t been able to restore the tunnels’”). To ensure each headline reflected the intended type of content, four raters were asked to categorize the headlines. This check succeeded, with full agreement among the judges. Participants’ scores for each type of content were computed by averaging the rank positions given to all three headlines from the relevant category. For ease in interpretation, these scores were then reversed, such that higher average scores represent stronger intentions to read the articles from the relevant category.

Levels of fear and reappraisal content were assessed as in Study 1 (For full details on fear measures, see Appendix A). Reappraisal content reliability analyses yielded the following alphas: ingroup-empowering reappraisal Cronbach’s $\alpha = .9$; outgroup-weakening reappraisal Cronbach’s $\alpha = .83$; and distraction Cronbach’s $\alpha = .86$ (for details on the confirmatory factor analysis, see Appendix C).

Results and Discussion

We first examined our coding of the manipulation comprehension check, to ensure that participants read and comprehended the recommendations they were given properly. This check enabled us to see whether participants interpreted the recommendation as intended, and whether this interpretation was a factor of their ideology or the experimental condition. To our surprise, a considerable number of participants not only misinterpreted the reappraisal-related recommendations they received, but even reversed their meaning, in effect interpreting them as meaning the opposite type of reappraisal (ingroup-empowering rather than outgroup-weakening, or vice versa; see Appendix E for details). A two-way ANOVA, specifying the number of recommendations reversed as the dependent variable, revealed a significant main effect for condition, $F(1,165) = 32.05$, $p < .001$, such that participants in the outgroup-weakening condition ($M = 0.55$, $SD = 0.06$) were more likely than those in the ingroup-empowering condition ($M = 0.03$, $SD = 0.06$) to reverse the meaning of the recommendations they received. We also found a significant main effect of ideology, $F(2,165) = 3.78$, $p = .02$, $\eta^2 = 0.04$. Post hoc tests using the Bonferroni correction revealed that leftists ($M = 0.12$, $SD = 0.08$) were

marginally significantly less likely than centrists ($M = 0.42$, $SD = 0.09$) ($p = .07$) to reverse the meaning of the recommendations they received. Rightists ($M = 0.32$, $SD = 0.07$) were undifferentiated from both leftists ($p = .27$) and centrists ($p = 1.0$).

Interestingly, the analysis revealed a significant condition \times ideology interaction, $F(2,165) = 4.49$, $p = .01$, $\eta^2 = 0.05$. Analyses of the simple effects revealed that in the outgroup-weakening condition, leftists reversed the recommendations they received less than both rightists (*mean difference* = -0.4 , $SE = 0.15$, $p = .01$, $[CI] = [-0.69, -0.11]$) and centrists (*mean difference* = -0.66 , $SE = 0.17$, $p < .001$, $[CI] = [-0.99, -0.33]$), who did not differ from one another (*mean difference* = $.25$, $SE = 0.16$, $p = .12$, $[CI] = [-0.07, -0.58]$). Interestingly, in the ingroup-empowerment condition, we found no ideological differences in the tendency to reverse the recommendations’ meaning. In other words, rightists’ and centrists’ preference for ingroup-empowering reappraisal triumphed over the actual contents of the recommendations they received, leading them to interpret the recommendation in accordance with their own ideological beliefs, regardless of its actual content. This corresponds to our Study 1 findings, with participants, especially rightists, again preferring ingroup-empowering reappraisal, even at the level of comprehension. While this is in itself further evidence in support of our hypothesis, for the purposes of the present study and assessing the impact of manipulated instrumentality concerns, we omitted participants whose comprehension reversed the meaning of reappraisal recommendations. The following results refer only to participants who passed the manipulation comprehension test ($N = 145$).

To test the impact of our manipulation, we conducted a two-way ANOVA to assess the interactive effect of ideology (Right, Center, and Left) as a between-subject variable, and the instrumentality manipulation (ingroup-empowering vs. outgroup-weakening) as another between-subject variable, on the headline rankings. Because the rankings of the two types of headlines (ingroup-empowering vs. outgroup-weakening headlines) were fully dependent on one another, such that the average rank for one category is, by definition, equal to 7 minus the average ranking for the other category, we ran the analysis for only one type, including the average ranking of ingroup-empowering headlines as our dependent variable. Higher values in this variable indicate a stronger preference for ingroup-empowering over outgroup-weakening headlines. For all means and standard deviations of these rankings by ideology and experimental condition, see Table 3.

The analysis revealed a significant main effect for ideology, $F(2,139) = 3.29$, $p = .04$, $\eta^2 = .04$. Post hoc tests revealed that leftists were less interested in reading ingroup-empowering articles ($M = 3.17$, $SD = 0.12$) than both rightists ($M = 3.52$, $SD = 0.12$) ($p = .02$) and centrists ($M = 3.59$, $SD = 0.15$) ($p = .02$), who did not differ from one another

Table 3. Means and standard deviations of the headlines ranking task in Study 2, by ideology

	Outgroup weakening condition		Ingroup empowering condition	
	Outgroup weakening headlines	Ingroup empowering headlines	Outgroup weakening headlines	Ingroup empowering headlines
	<i>M</i> (<i>SD</i>)			
Right	3.80 (0.73)	3.20 (0.73)	3.16 (0.75)	3.84 (0.75)
Center	3.61 (1.18)	3.39 (1.18)	3.21 (0.73)	3.79 (0.73)
Left	3.96 (0.82)	3.04 (0.82)	3.70 (1.01)	3.30 (1.01)
Total	3.79 (0.12)	3.21 (0.12)	3.35 (0.09)	3.65 (0.09)

($p = 1.0$), providing converging validity for our findings in Study 1. More importantly, we also found a main effect for the instrumentality manipulation, $F(1,139) = 8.38, p = .01, \eta^2 = .06$, such that participants were overall more likely to indicate a preference for these ingroup-empowering articles if they were assigned to the congruent condition (and vice versa—Ingroup-empowering condition: $M_{congruent} = 3.65, SD = 0.09, M_{incongruent} = 3.35, SD = 0.09$; Outgroup-weakening condition: $M_{congruent} = 3.79, SD = .12, M_{incongruent} = 3.21, SD = .12$). Importantly, this effect was not significantly moderated by ideology, $F(2,139) = 0.63, p = .53, \eta^2 = 0.01$, indicating that the manipulation influenced all participants' article rankings, regardless of their political ideology, and lending initial support to the instrumentality hypothesis.

Finally, we turned to examine the strategies participants reported employing once their fear was actually aroused (reported *after* watching the video), and whether these differences in reappraisal content preferences were also influenced by the instrumentality manipulation. We ran a three-way mixed within-between design ANOVA to assess the interactive effect of ideology (Right, Center, and Left) and condition (ingroup-empowering vs. outgroup-weakening) as between-subject variables, type of reappraisal (ingroup-empowering and outgroup-weakening) compared within subject, on self-reported use of different types of reappraisal content while watching the video (for all means and standard deviations of reappraisal content preferences, divided by ideology and condition, see Table 4).

As in Study 1, we found a significant main effect for type of reappraisal on the tendency to employ it, with participants tending to employ ingroup-empowering

reappraisal more than outgroup-weakening reappraisal, $F(1,139) = 36.3, p < .001, \eta^2 = 0.21$. There was also a significant main effect for ideology, $F(2,139) = 5.11, p = .01, \eta^2 = 0.07$, and post hoc tests using the Bonferroni correction revealed that rightists were more likely to use reappraisal than leftists, regardless of the specific content ($p = .001$). Centrists differed neither from rightists ($p = .8$), nor from leftists ($p = .13$). Interestingly, and contrary to the analysis of pre-stimulus behavior, we did not find a significant main effect for condition, $F(1,139) = 1.02, p = .31, \eta^2 = 0.007$. Finally, we identified only a significant reappraisal type \times ideology interaction, $F(2,139) = 3.9, p < .05, \eta^2 = 0.05$ (see Figure 2A,B), with the other two-way interactions failing to reach significance: reappraisal type \times condition, $F(1,139) = 1.12, p = .29, \eta^2 = 0.01$; and ideology \times condition, $F(2,139) = 1.5, p = .23, \eta^2 = 0.02$. There was also no significant three-way interaction, $F(2,139) = .66, p = .52, \eta^2 = 0.01$, indicating that the significant reappraisal type \times ideology interaction was unmoderated by the experimental condition.

Analyses of the simple effects revealed that leftists used ingroup-empowering reappraisal less than both rightists (*mean difference* = $-1.03, SE = 0.28, p < .001, [CI] = [-1.59, -0.47]$) and centrists (*mean difference* = $-0.76, SE = 0.33, p = .02, [CI] = [-1.41, -0.1]$), who did not significantly differ from one another (*mean difference* = $0.27, SE = 0.33, p = .4, [CI] = [-0.37, 0.93]$). Contrary to our initial hypothesis but in line with Study 1, we found no significant ideological differences in the tendency to use outgroup-weakening reappraisal (rightists–leftists *mean difference* = $0.41, SE = 0.23, p = .08, [CI] = [-0.05, 0.87]$; centrists–leftists *mean difference* = $.37, SE = 0.27, p = .18, [CI] = [-0.17, 0.91]$; rightists–centrists *mean difference* = $0.04, SE = 0.27, p = .88, [CI] = [-0.50, 0.59]$). Nonetheless, we found that while rightists and centrists significantly favored ingroup-empowering content over outgroup-weakening content (rightists' *mean difference* = $0.90, SE = 0.16, p < .001, [CI] = [0.59, 1.22]$; centrists' *mean difference* = $0.67, SE = 0.21, p = .002, [CI] = [0.25, 1.08]$), among leftists only a marginally significant difference emerged (*mean difference* = $0.28, SE = 0.16, p = .08, [CI] = [-0.03, 0.59]$). The above results starkly diverge from those found for the behavioral task that preceded the stimulus, instead supporting the prediction that preferences would be driven by the ideological congruence of the content.

Table 4. Means and standard deviations of reappraisal content preferences in Study 2, by ideology and experimental condition

	Ingroup-empowering condition			Outgroup-weakening condition		
	Ingroup-empowering reappraisal	Outgroup-weakening reappraisal	Total	Ingroup-empowering reappraisal	Outgroup-weakening reappraisal	Total
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
Right	4.20 (1.31)	3.15 (1.08)	3.68 (0.20)	3.36 (1.39)	2.60 (1.13)	2.98 (0.26)
Center	3.52 (1.78)	2.62 (1.37)	3.07 (0.24)	3.49 (1.41)	3.05 (1.26)	3.27 (0.36)
Left	2.80 (1.49)	2.57 (.127)	2.68 (0.24)	2.69 (1.32)	2.36 (1.19)	2.53 (0.23)
Total	3.51 (0.16)	2.78 (0.13)	3.14 (0.13)	3.18 (0.20)	2.67 (0.17)	3.03 (0.11)

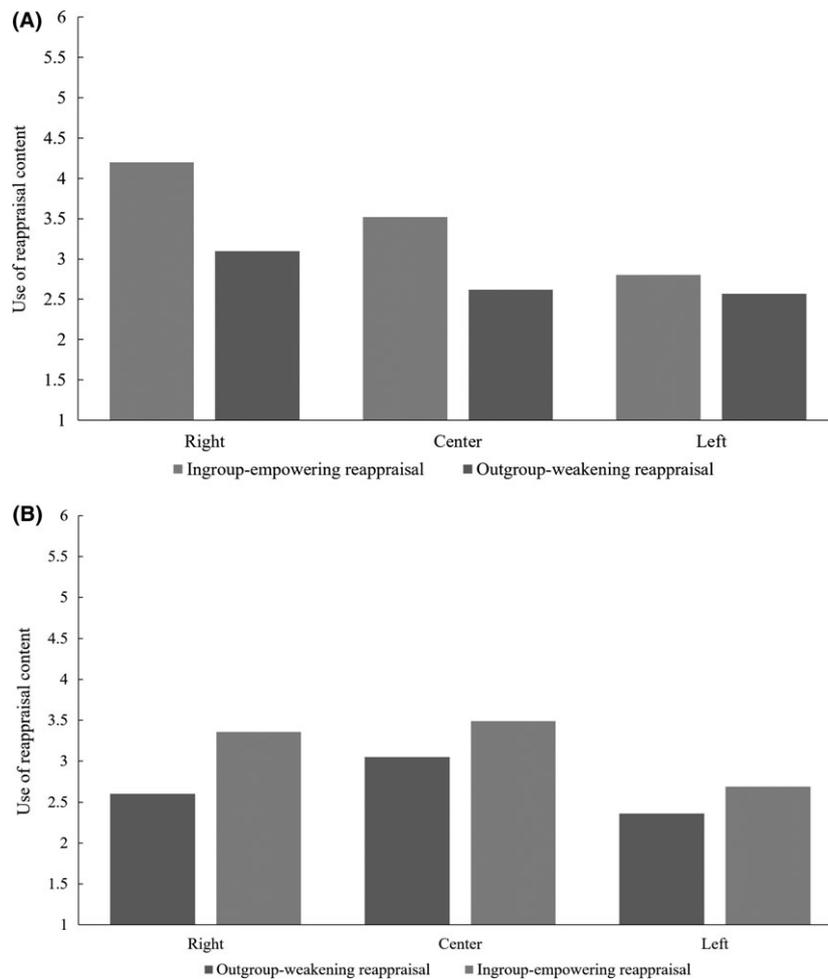


Fig. 2: (A) The interactive influence of ideology and type of reappraisal content on the tendency to use each type of content to regulate fear in the ingroup-empowering condition in Study 2. (B) The interactive influence of ideology and type of reappraisal content on the tendency to use each type of content to regulate fear in the outgroup-weakening condition in Study 2

The findings of Study 2 replicated the findings of Study 1, providing further support for our preliminary hypothesis that people with different ideologies differ in the contents of the reappraisal they use to regulate fear. These findings support our assumption that the motivation to justify one’s pre-existing ideological beliefs drives the differences identified in Study 1, as per the *motivation reasoning approach* (Kunda, 1990). Participants in Study 2 appeared to act in accordance with the recommendations provided in the manipulation when ranking different news headlines, preferring to read articles that could help them more effectively regulate the anticipated fear-inducing stimulus. Nonetheless, once they were presented with the stimulus and wanted to reduce their fear in practice, rightists tended to employ the reappraisal content that fit their ideologies. In other words, we saw that the perceived instrumentality of specific reappraisal contents influenced participants’ actual behavior, but only before they were exposed to the fear induction. Once they were exposed to the fear induction, they disregarded the advice they were given and opted to employ content that is congruent with their ideological beliefs. This indicates that the motivation for

consonance with one’s held ideology is stronger than the newly learned instrumentality considerations, at least when regulating emotions in real time.

Nonetheless, since the ingroup-empowerment items used in Studies 1 and 2 all focused on militaristic themes, the above findings do not rule out the possibility that ideological differences in reappraisal themes stem from differences in militaristic attitudes, rather than in a general preference for ideology-congruent appraisals. Another limitation of Studies 1 and 2 relates to our inability to identify content that is used more by leftists than rightists, which may relate to our specific choice of content to measure. As detailed earlier, leftists should prefer content that diminishes the perceived threat from the outgroup. But they should also favor content representing greater trust in people in general (Binning, 2007) and messages that involve higher levels of hope for conflict resolution (Bar-Tal, 2001; Jarymowicz & Bar-Tal, 2006), and these were not the themes included in the outgroup-weakening items we have employed thus far. Therefore, we wanted to identify more appropriate reappraisal themes reflecting these contents. Finally, despite our earlier contention that it is important to study fear

regulation because of the potentially destructive outcomes of fear, Studies 1 and 2 did not examine any such potential outcomes. Study 3 was designed to address all these limitations.

Study 3: Assessing Ideological Differences in Preferences for Additional Kinds of Ingroup-Empowering and Threat-Minimizing Reappraisal Content

We conducted Study 3 with several goals in mind. First, because ingroup-empowering reappraisal may have been confounded with support for militaristic attitudes in the previous studies, we added another group of items to the measure of reappraisal content pertaining to non-militaristic ingroup empowerment. In other words, we wanted to examine whether rightists (more than leftists) favor ingroup-empowering reappraisal even if its content is wholly unrelated to militant policies. Second, we wanted to measure differences in reappraisal content that is more congruent with the motivations of leftists than the content we assessed in Studies 1 and 2. Therefore, we added yet another group of items to our measure of reappraisal content, assessing agreement with statements framing Palestinian support for violence as low and their support for peace as high. In other words, we wanted to examine if leftists would be more likely to reduce their fear by telling themselves that the threat is minimal due to low popular support among outgroup members for threatening measures.

Finally, as we widely reviewed earlier, fear is related to a variety of important attitudinal outcomes, such as delegitimization of the outgroup (Bar-Tal, 2001), lower support for compromises, and opposition to conflict resolution measures (Halperin, 2011). Although reappraisal has largely been described in the literature as having positive outcomes in the context of intractable conflict (Halperin & Gross, 2011), we wish to examine whether certain contents of reappraisal may actually have negative implications. Specifically, we assume that ingroup-empowering reappraisal could be related to endorsement of destructive outcomes such as delegitimization. On the other hand, reappraisal content that focuses on the outgroup's motivations could reinforce attitudes representing higher trust and willingness to reconcile, thus promoting outcomes such as support for compromises and compensation.

We again hypothesized that rightists (compared to leftists) would be more likely to reappraise a fear-inducing stimulus in a manner that empowers their ingroup, regardless of whether this content is militaristic or not. Additionally, we predicted that leftists (compared to rightists) would have a greater tendency to reappraise an intergroup fear-inducing situation by viewing popular support for violence among outgroup members as limited, thus diminishing the perceived threat from the group as a whole. Finally, we hypothesized that using reappraisal

contents that empower the ingroup will be correlated with delegitimization of the outgroup, whereas using reappraisal contents that focus on diminishing the threat posed by the outgroup will be correlated with constructive outcomes such as support for compromises and compensation. We examined these hypotheses by presenting participants with the same fear-inducing video used in the previous studies, and subsequently examining the relationship between participants' ideology, the reappraisal contents they employ to down-regulate their fear, and various potential attitudinal outcomes of fear.

Method

Participants. We recruited 121 Jewish Israeli participants (62 females; ages 19–65, $M = 42.46$, $SD = 12.25$) using a survey administered by the research firm Panel4all. This number was based on a power analysis specifying the smallest effect size obtained on our main DVs in Studies 1 and 2 ($\eta^2 = 0.05$) and .95 power, which yielded a recommended total sample size of 78. We sampled a larger number of participants based on the expectation that some may need to be excluded for failing to respond in a serious manner—a common practice in studies employing online participant panels (see Downs, Holbrook, Sheng, & Cranor, 2010; Oppenheimer, Meyvis, & Davidenko, 2009). Indeed, we had to exclude six participants for unreasonable completion times (under five minutes), seven because they failed our attention checks, and 18 due to failure to follow instructions, yielding a final sample of 91 participants (51 females; ages 19–65, $M = 42.81$, $SD = 12.25$). Politically, the sample was slightly skewed to the right, with 42.8% of participants identifying as moderately to extremely rightist, 24.2% as centrist, and 33% as moderately to extremely leftist.

Procedure and measures. Participants were told that they were going to participate in a study about emotions and coping with fear in the context of the Israeli–Palestinian conflict. As in Study 1, participants were asked to watch a frightening video about Hamas and instructed to try to reduce their experience of fear through reappraisal. After watching the video, they reported their levels of fear as in Study 2 (see Appendix A) and responded to the same measures of reappraisal, compounded with additional items measuring non-militaristic ingroup empowerment (e.g., “I told myself that our strength is derived from our great unity”, Cronbach's $\alpha = .79$) and low support for violence among Palestinians (e.g., “I told myself that the majority of Palestinians do not support terror and are interested in a peaceful resolution”, Cronbach's $\alpha = .87$). To ensure that the five reappraisal scales used in the current study were differentiated, we included all 25 items in an exploratory factor analysis using Promax rotation. As intended, the items loaded on five factors, but six items had relatively high cross-loading

or loaded on the wrong factor, and they were therefore omitted from the calculated measures. Additionally, three items were omitted since they were not a part of the original ingroup-empowering scale (for details on the factor analysis, see Appendix C).

Next, participants were asked to answer several questionnaires assessing potential consequences of fear and its regulation as described earlier, rating each item on a six-point scale ranging from 1 = “not at all” to 6 = “very much so”. These measures included delegitimization of the outgroup (e.g., “To what extent do you believe that the Palestinians are naturally bad?”, Cronbach’s $\alpha = .90$), support for compromises (e.g., “As part of a peace agreement with the Palestinians, Israel should evacuate all settlements outside the main settlements block”, Cronbach’s $\alpha = .95$), and support of compensation to the Palestinians (e.g., “Israel should compensate Palestinian farmers for damages done by Jewish settlers”, Cronbach’s $\alpha = .93$). Finally, participants were asked to answer a short demographic questionnaire including a measure of ideology, as in the previous studies.

Results and Discussion

We conducted a two-way mixed-design ANOVA to examine the interactive effect of ideology (Right, Center, and Left) as a between-subjects variable and type of reappraisal (militaristic ingroup-empowering, non-militaristic ingroup-empowering, outgroup-weakening, and low outgroup support for violence) as a within-subject variable on the tendency to employ

reappraisal (for all means and standard deviations of reappraisal content preferences by ideology, see Table 5).

The analysis first revealed a significant main effect for type of reappraisal ($F(3,88) = 19.41, p < .001, \eta^2 = 0.18$). Post hoc tests using the Bonferroni correction revealed that there was a significant difference between the use of militaristic ingroup-empowerment and both outgroup weakening ($p < .001$) and low outgroup support for violence ($p < .001$), such that in line with previous studies, participants used ingroup-empowerment more than the other themes to down-regulate their fear. Similarly, the use of non-militaristic ingroup-empowering reappraisal was significantly greater than the use of both of these non-empowering types of content ($p_{\text{outgroup-weakening}} = .006; p_{\text{low outgroup support for violence}} < .001$). No significant differences were found between the two types of ingroup empowerment ($p = .11$), or between the two outgroup-focused types of content ($p = .96$). These findings replicate and extend the main within-subject effects of Studies 1 and 2, with participants favoring ingroup-empowering reappraisal content over outgroup-focused reappraisal content when down-regulating their fear. No significant main effect emerged for ideology, $F(2,88) = 1.17, p = .32$.

More importantly for our purposes, the analysis yielded the hypothesized significant interaction between type of reappraisal content and ideology, $F(6,88) = 7.50, p < .001, \eta^2 = .15$ (see Figure 3). To our surprise, an analysis of the simple effects for the militaristic ingroup-empowering content used in

Table 5. Means and standard deviations of reappraisal content preferences in Study 3, by ideology

	Militaristic ingroup-empowering reappraisal	Non-militaristic ingroup-empowerment	Outgroup-weakening reappraisal	Low outgroup support for violence	Total
Right	3.57 (1.44)	3.53 (1.46)	2.78 (1.27)	1.94 (0.96)	2.95 (0.17)
Center	3.86 (1.32)	3.74 (1.24)	2.99 (1.41)	2.53 (1.24)	3.28 (0.23)
Left	3.20 (1.55)	2.62 (1.42)	2.69 (1.32)	2.98 (1.47)	2.87 (0.20)
Total	3.52 (1.45)	3.28 (1.46)	2.80 (1.31)	2.42 (1.29)	3.04 (0.12)

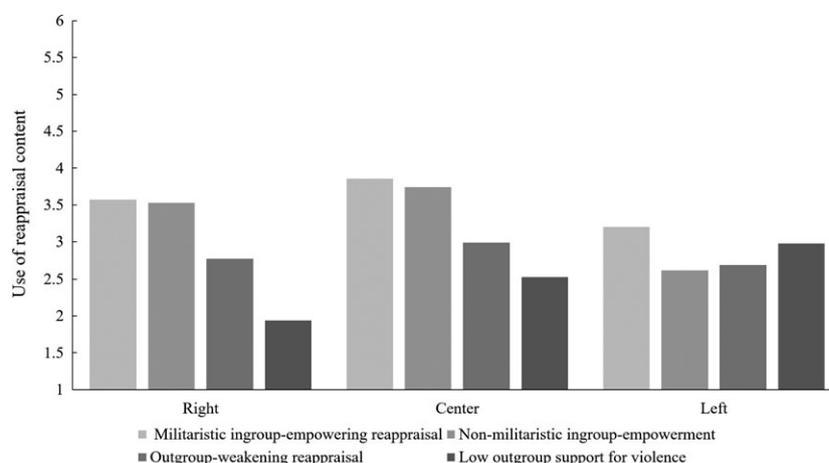


Fig. 3. The interactive influence of ideology and type of reappraisal content on the tendency to use each type of content in Study 3

previous studies yielded only a marginally significant difference in using this content between centrists and leftists, with centrists tending to use it more than leftists (*mean difference* = 0.64, *SE* = 0.43, *p* = .14, [CI] = [-0.20, 1.5]). Moreover, the difference between rightists and leftists, despite being in the same direction, did not prove significant (*mean difference* = 0.31, *SE* = 0.37, *p* = .41, [CI] = [-0.43, 1.04]). Interestingly, the simple effects for non-militaristic ingroup-empowering reappraisal yielded stronger results, indicating that leftists used this content less than both rightists (*mean difference* = -1.06, *SE* = 0.35, *p* = .004, [CI] = [-1.76, -0.36]) and centrists (*mean difference* = -1.28, *SE* = 0.41, *p* = .002, [CI] = [-2.09, -0.47]). These effects correspond to the findings regarding the ingroup-empowering reappraisal content from previous studies. Additionally, as in the previous studies, no significant simple effects emerged for outgroup-weakening reappraisal between the different ideological groups (rightists-leftists *mean difference* = -0.03, *SE* = 0.33, *p* = .94, [CI] = [-0.69, 0.63]; centrists-leftists *mean difference* = 0.3, *SE* = 0.38, *p* = .45, [CI] = [-0.47, 1.05]). Nonetheless, in line with our second hypothesis, an analysis of the simple effects for low outgroup support for violence revealed that rightists used this content less than leftists (*mean difference* = -1.28, *SE* = 0.31, *p* < .001, [CI] = [-1.91, -0.66]) and centrists, although only to a marginally significant extent compared to the latter (*mean difference* = -0.69, *SE* = 0.34, *p* = .05, [CI] = [-1.37, -0.01]). No differences in using this content emerged between leftists and centrists (*mean difference* = 0.59, *SE* = 0.36, *p* = .11, [CI] = [-0.13, 1.31]).

Next, to examine how preferences for these types of reappraisal are related to potential consequences of fear and its regulation, we examined the correlations between the use of each type of reappraisal content and the outcome variables included in our design (see Table 6). In line with our hypotheses, both types of ingroup-empowering reappraisal were positively correlated with delegitimization of the outgroup—and surprisingly the correlation was higher with non-militaristic content than with militaristic content. We also found negative correlations between the use of non-militaristic ingroup-empowering content and the

constructive outcomes of support for compromises and compensation. Moreover, content representing low outgroup support for violence was positively correlated with support for compromises and support for compensation. Nonetheless, we did not find any significant correlations between outgroup-weakening reappraisal and the measured outcomes, further supporting the assumption that this content was less appropriate for gauging leftist-congruent motivated reasoning through reappraisal. Taken together, these findings support our assertion that reappraisal using certain contents may also be correlated to negative and destructive implications for conflict resolution.

Study 3's findings replicate and extend the main finding of Studies 1 and 2 regarding ideological differences in preferences for ingroup-empowering reappraisal content, revealing that these differences emerge for different kinds of ingroup-empowering content. Interestingly, in the present study this effect emerged more clearly for the new measure we introduced, assessing non-militaristic ingroup empowerment, than for the militaristic measure used in our previous studies, which emerged only marginally significant here. One explanation for this may be that providing an option of empowering the group through more socially accepted non-militaristic means may negate some of the need to empower the group's perceived military might. Another explanation for this weaker effect may stem from the timing of this study: While Studies 1 and 2 were conducted during the year following the 2014 war in Gaza (known by Israelis as Operation Protective Edge), thus producing an especially tense and violent atmosphere, Study 3 was conducted in a period of relative calm.

Study 3 further elaborated on the findings of the preceding studies by demonstrating that leftists, more than rightists, favor reappraisal content that diminishes the threat from the outgroup by asserting low popular support for violence among its members. This proved to be a better representation of content congruent with leftist ideology than outgroup-weakening content, both theoretically and empirically, and confirmed our preliminary assumption. Finally, Study 3 provided valuable evidence regarding how different contents of fear reappraisal relate to the potential destructive

Table 6. Means, standard deviations, and Pearson Correlations among different types of reappraisal content and fear regulation outcomes in Study 3

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
Militaristic ingroup empowering reappraisal	3.59	1.52	1	–	–	–	–	–	–	–
Non-militaristic ingroup empowering reappraisal	3.23	1.54	.55**	1	–	–	–	–	–	–
Outgroup-weakening reappraisal	2.69	1.36	.61**	.46**	1	–	–	–	–	–
Low outgroup support for violence reappraisal	2.43	1.39	.16	.15	.36**	1	–	–	–	–
De-legitimization towards the outgroup	3.58	1.19	.22*	.46**	.09	-.41**	1	–	–	–
Support for compromises	3.14	1.37	-.08	-.32**	.04	.51**	-.72**	1	–	–
Support for compensations	3.01	1.41	-.15	-.41**	.01	.39**	-.69**	.86**	1	–
Level of fear	3.11	1.49	-.05	.02	-.18	-.11	.26*	-.04	-.06	1

Notes: **p* < .05.

***p* < .01.

outcomes of fear. More specifically, while some forms of fear reappraisal (i.e., perceiving low outgroup support for violence) are related to lower delegitimizing attitudes and higher support for constructive measures, other forms (i.e., ingroup-empowering reappraisal content) are actually related to increased delegitimization and decreased support for constructive measures. Thus, these analyses are just exploratory and should be further examined.

General Discussion

In the present project, we aimed to illuminate how people reappraise intergroup fear-inducing information in the context of long-term intergroup conflict. To this end, we conducted three studies examining the relationship between ideology and the content of reappraisal individuals employ to regulate their fear. We examined this relationship by assessing both self-reported use of these strategies and behavioral choice. Additionally, we examined our hypothesis that individuals prefer ideology-congruent content against an alternative instrumental motive to most effectively reduce one's fear, finding partial evidence that the preference for ideology-congruent content is stronger than instrumentality concerns. Finally, as per our assertion that the constructive outcomes of fear regulation through reappraisal may be content-dependent rather than universal, we examined how different contents of fear reappraisal relate to the potential outcomes of fear, demonstrating that certain contents of reappraisal do correlate to some destructive outcomes.

More specifically, in Study 1, we found that right-left differences in preferences for fear-decreasing reappraisal content emerge mainly in the use of ingroup-empowering reappraisal, with rightists and centrists employing this content more than leftists. Contrary to our hypothesis, however, no significant ideological differences emerged in the use of outgroup-weakening reappraisal.

Study 2 incorporated an additional behavioral measure of reappraisal content preferences. When prompted before exposure to the fear-inducing stimulus to choose what kind of content they would want to read following the stimulus to address their fear, participants followed advice they received pertaining to the effectiveness of different types of content. Nonetheless, after exposure to the actual stimulus, rightists again showed a greater preference for ingroup-strengthening content, replicating the results of Study 1. Thus, of the two competing hypotheses stemming from the literature—an instrumental approach versus a motivated reasoning approach—our findings ultimately supported the latter upon actual exposure to fear-inducing information. The motivation to confirm and reiterate one's preexisting ideological beliefs triumphed even in the face of competing instrumentality concerns for effective emotion regulation.

In Study 3, we replicated and extended the findings of Studies 1 and 2 with respect to ideological differences in preferences for ingroup-empowering reappraisal content. This difference emerged even more clearly for non-militaristic ingroup-empowerment, demonstrating that the previous findings were not simply a result of ideological differences in militaristic attitudes. Additionally, measuring participants' use of appraisals of low outgroup support for violence allowed us to identify content favored by leftists more than rightists. Finally, we showed that reappraisal through different contents correlate to different attitudinal outcomes related to conflict resolution. More specifically, we found that reappraisal by perceiving low outgroup support for violence was related to constructive outcomes, such as low delegitimization and higher support for reconciliation measures, while ingroup-empowering reappraisal was actually related to increased delegitimization and decreased support for constructive measures.

The present research offers several important contributions to the literature, starting with the literature on emotion regulation. Scholarship on emotion regulation in intergroup conflicts has already examined several important aspects of this phenomenon. For example, previous work has highlighted the benefits of reappraisal in this context (Halperin & Gross, 2011; Halperin *et al.*, 2013; Halperin *et al.*, 2014), the role of motivation in emotion regulation (Porat, Halperin, & Tamir, 2016), and ideological differences in choice between different emotion regulation strategies (Pliskin *et al.*, 2018). Nonetheless, reappraisal had yet to be studied directly and specifically with regard to fear in intractable conflicts. The present research is the first to show that people indeed use reappraisal to reduce their fear in these contexts. Moreover, the present research is the first to examine different types of reappraisal content in this context, and the first to demonstrate individual differences in reappraisal content preferences. Our studies showed that people with different long-term beliefs differ in the reappraisal content with which they choose to regulate their fear, opting for content that corresponds to their beliefs, thus reinforcing them. These findings, coupled with the examination of different potential mechanisms, further illuminate people's reappraisal tendencies in conflict.

A second theoretical contribution of our findings relates to the intersection of the literatures on emotion regulation and ideology. We found that ideology impacts how people choose to reappraise fear-inducing stimuli to decrease their fear, with people opting for ideology-congruent reappraisal content even at a cost to the perceived instrumentality of the reappraisal content they employ. Although differences in the emotion regulation process between people with different ideological views have been studied before (Halperin *et al.* 2014; Pliskin *et al.*, 2018; Porat *et al.*, 2016), previous work has not examined ideology's role in determining the content one employs when

reappraising, neither in general nor with regard to intergroup fear more specifically. By examining the relationship between ideology and reappraisal content preferences, we showed that alongside the previously identified positive outcomes of reappraisal (Halperin & Gross, 2011), certain contents of reappraisal, like ingroup-empowering content, actually have negative implications. In other words, rather than yielding one-dimensional constructive consequences, reappraisal may also have destructive consequences in intergroup conflicts, depending on one's ideology.

The research at hand offers an additional important theoretical contribution by employing and integrating cognitive and motivational theories in the context of intractable conflicts to explain interpersonal differences in reappraisal-content selection. By using theories from other research fields (e.g., cognitive dissonance, Festinger, 1957) when addressing intractable conflicts, we broadened the understanding of motives that influence individual differences in emotional processes in these contexts. The results supporting the motivated reasoning/dissonance avoidance hypothesis paint a much more complex picture of the different motivations that influence emotion regulation processes. Hence, future studies should take these theories into account and even expand the understanding of the discussed motives by adding knowledge from other domains.

Alongside their theoretical contribution, our findings may also hold applied significance. Societies involved in intractable conflicts tend to be ruled by a collective fear orientation, with many potential destructive consequences (Bar-Tal, 2001). While trying to better understand whether people can regulate this fear and how, we found that solely providing people with recommendations on how to best regulate their fear was not sufficient in altering the contents they employed, due to the tendency to prefer ideology-supporting content. It may be that taking ideological differences into account when formulating reappraisal recommendations would allow constructive forms of reappraisal to be framed in ideology-congruent terms, thus increasing the chances they will be adopted. In other words, future interventions should take into consideration the ideological distribution of the target audience and adjust recommended modes of fear regulation accordingly.

Methodologically, the present research has several strengths. First, by employing videos presenting real-life threats in a controlled lab setting, our studies allowed us to examine our research questions in conditions that simulate everyday threats experienced during decades-long conflicts. This approach raises the results' external validity, which is highly important when examining real-world stimuli and phenomena in ways that may inform interventions, as we did in this project. Second, previous research has illuminated the complexity of right-left differences in emotional processes using self-reported emotional experience (e.g., Halperin & Pliskin, 2015; Pliskin *et al.*, 2014).

The use of a behavioral measure for reappraisal content selection in Study 2 thus offers a contribution in itself, demonstrating additional and potentially more reliable modes of assessing emotion regulation processes. Once again, by expanding the methods used to examine our questions, our findings hold greater external validity. Future research may increase this validity further by taking the examination outside the lab.

Nonetheless, our study also has several limitations. The first of these relates to the specific operationalization we employed. We conducted the three studies in the context of the Israeli-Palestinian conflict, and although this conflict is a prototypical intractable conflict (Bar-Tal & Halperin, 2013), the focus on a single population within a single conflict limits our ability to generalize our conclusions. Replicating this research among other samples in different contexts would provide greater external validity to the current findings and possibly help identify important contextual limitations of our results. Another operational limitation lies in the possibility of some dependency between the reappraisal categories. In this research we tried to overcome this limitation by conducting factor analyses and ensuring our scales included only items with minimal cross-loadings. Nonetheless, future studies may benefit from new operationalizations that further limit the risk of interdependence.

An additional limitation lies in the possibility that the stimulus we employed to induce fear may have induced more fear among rightists than among leftists.⁴ Indeed, recent studies show that ideological differences in perceived threat can be explained by the unique characteristics of the source of threat and its connection to one's own worldview (Brandt, Reyna, Chambers, Crawford, & Wetherell, 2014; Crawford & Pilanski, 2014). Specifically, it has been found that individuals are more negative towards groups that they see as holding conflicting ideologies from them, which in Israel would mean that rightists would experience stronger negativity towards Palestinians than leftists (Elad-Strenger & Shahar, 2017). Therefore, future studies may benefit from presenting other frightening stimuli that may present more worldview conflict with dovish, leftists attitudes, facilitating a more balanced examination of our hypotheses.

Conclusion

In summary, the three studies contained in this project illuminate ideological differences in reappraisal content preferences when coping with fear-inducing information. These differences consistently emerge in the employment of ingroup-empowering reappraisal contents, with rightists more inclined to use this

⁴Our Study 1 pilot data (see Appendix F) identified no significant ideological differences in the fear aroused by the manipulation, but the trends suggest that if any such difference exists, it is because rightists' fear was indeed higher.

content than leftists, whereas leftists were more inclined to employ content appraising low outgroup support for violence. Additionally, we showed that this relationship could not be fully explained by ideological differences in instrumentality considerations of the selected content, but rather stems from motivated reasoning concerns. The present research adds an important contribution to the relevant literatures on emotion regulation in intractable conflicts and ideology, generating a better understanding of individual and ideological differences in the way people choose to regulate fear, as well as the different outcomes of reappraisal using different reappraisal contents. These findings also hold applied implications, thus possessing the potential of improving efforts to counteract the devastating consequences of intergroup fear in conflicts and promoting conciliatory attitudes.

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Appendix A

Measurements of level of fear, the attempt to regulate it, and the success of fear regulation, in Studies 1, 2, and 3

Figures 4–6.

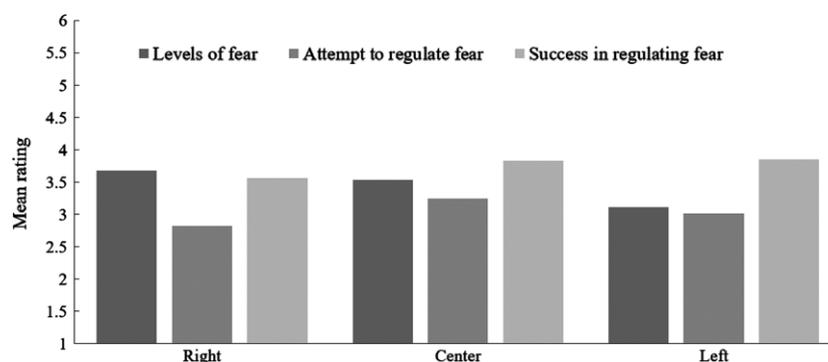


Fig. 4: Measurement of levels of fear, the attempt to regulate fear and the success in fear regulation, divided by ideology (Study 1)

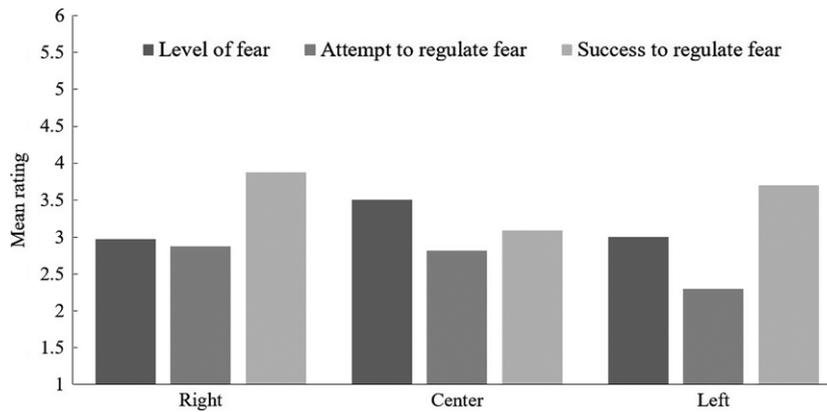


Fig. 5: Measurement of levels of fear, the attempt to regulate fear and the success in fear regulation, divided by ideology (Study 2)

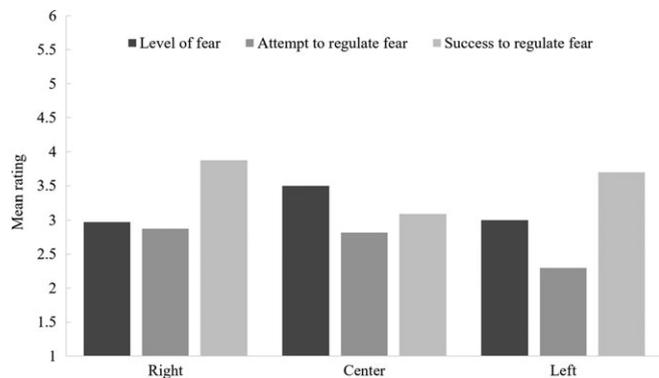


Fig. 6: Measurement of levels of fear, the attempt to regulate fear and the success in fear regulation, divided by ideology (Study 3)

Appendix B

Percentage of participants who reported using each reappraisal theme to cope with their fear in the open-ended question in Study 1

After watching the video, participants were asked to describe in their own words in what ways they tried to reduce the fear they felt, in case they indeed felt fear as a result of watching the video. Therefore, we coded these open-ended texts in order to get a clear picture of the reappraisal content participants used when coping with fear. The following distribution further supports our assumption regarding the two types of reappraisal themes that emerge when trying to regulate intergroup fear (Figure 7).

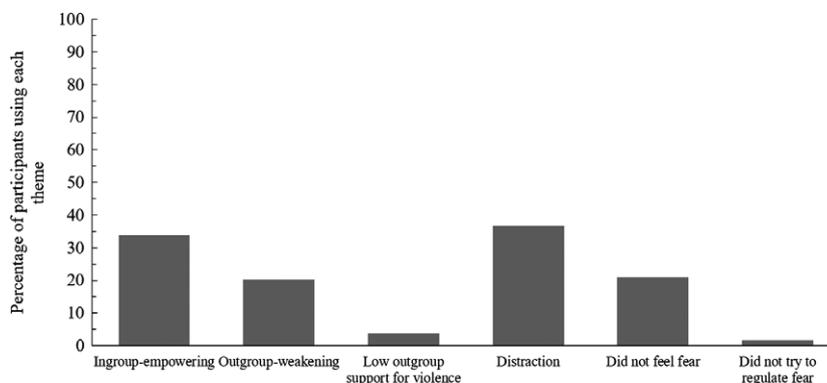


Fig. 7: Percentage of participants who reported using each reappraisal theme to cope with their fear in the open-ended question in Study 1

Appendix C

Factor analysis of reappraisal content questionnaire for all studies

To ensure the three reappraisal scales used in Study 1 were differentiated, we included all items in an exploratory factor analysis using Promax rotation. As intended, the items loaded on three factors but one item (“I told myself that the USA is by our side and will provide us with the necessary means to effectively handle the threat”) loaded poorly on all factors and was removed from the analysis. Consequently, according to the criterion of eigenvalue >1, the remaining 14-items were grouped into three factors explaining 63.6% of the total variance. All primary-factor loadings exceeded 0.55, and no secondary-factor loadings exceeded 0.35.

Factor analysis of reappraisal content questionnaire for Study 1

Item	Factor		
	I	II	III
Ingroup empowering items			
1. In order to reduce the fear I felt, I told myself Israel has a strong army and the ability to successfully combat any threat	0.90	-0.09	0.02
2. I told myself that there are soldiers protecting us	0.88	0.001	-0.04
3. I told myself that there is no need to fear because the IDF is the strongest army in the Middle East	0.87	-0.15	-0.001
4. I told myself that the Iron Dome system is protecting us	0.69	0.16	-0.02
5. Ultimately, we have fought them many times before and have won	0.64	0.10	0.16
Outgroup weakening items			
1. I told myself that they have little power and few firearms	-0.14	0.85	-0.11
2. In order to reduce the fear I felt, I told myself that in the last confrontation Hamas suffered a heavy blow, and they are too weak and afraid to confront us again	-0.06	0.78	-0.03
3. I told myself that they fear us more than we fear them	0.07	0.66	-0.04
4. I told myself that most of the times they tried to hurt us they didn't succeed	0.18	0.56	0.004
5. I told myself the Palestinians don't have any real ability to hurt me	0.11	0.53	0.04
6. I told myself that the USA is by our side and will provide us with the necessary means to effectively handle the threat	0.13	0.48	0.20
Distraction items			
1. I tried to think about unrelated things that don't frighten me	-0.09	0.05	0.90
2. I tried to think about unrelated things that make me happy or laugh	-0.06	0.16	0.84
3. I looked away to avoid watching the video	-0.01	-0.09	0.84
4. When I was afraid, I tried to ignore the images presented in the video	0.16	-0.15	0.78

Note: Promax rotation was performed. Each item's highest loading is presented in boldface.

When we turned to perform Study 2, we conducted a confirmatory factor analysis (CFA) based on the model derived from the exploratory factor analysis (EFA) conducted in Study 1. We compared a model in which ingroup-empowering reappraisal, outgroup-weakening reappraisal, and distraction scales comprised three separate factors, with an alternative model, in which the two reappraisal modes and the distraction scale are loaded on two factors. The three-factor model had good fit indices, with $\chi^2(63) = 99.77$, $p = .002$, NFI = .91, CFI = .96, TLI = .95, and RMSEA = .06. The alternative two-factors model had lower fit, with $\chi^2(63) = 131.7$, $p < .001$, NFI = .88, CFI = .93, TLI = .91, and RMSEA = .09. As expected, the three-factor model fitted the data better than the two-factor alternative model, indicating that ingroup-empowering reappraisal and outgroup-weakening reappraisal are distinct constructs.

Model	χ^2	df	p	NFI	CFI	TLI	RMSEA
Two Factor	131.7	63	<.001	0.88	0.93	0.91	0.09
Three Factor	99.77	63	.002	0.91	0.96	0.95	0.06

Study 3 included the addition of new items to measure modes of emotion regulation. Therefore, we ran an exploratory factor analysis as in Study 1. We expected to find five factors, in accordance with our operationalization of the proposed modes: militaristic ingroup-empowering reappraisal, non-militaristic ingroup-empowering reappraisal, outgroup-weakening reappraisal, low outgroup support for violence, and distraction. We included all 25 items in an exploratory factor analysis using Promax rotation. As expected, the items loaded on five factors, but there were six items that had relatively high cross-loading (a8, b3), loaded on the wrong factor (c3), or both (b4, b5, c5). Three additional items (a3, a5, a7) were omitted since they were not a part of the original militaristic ingroup-empowering scale. Consequently, according to the criterion of eigenvalue >1, the remaining 16-items were grouped into five factors explaining 76.77% of the total variance. All primary-factor loadings exceeded .60, and no secondary-factor loadings exceeded .35.

Factor analysis of reappraisal content questionnaire for Study 3

Item	Factor				
	I	II	III	IV	V
a. Militaristic ingroup empowering reappraisal					
1. I told myself that there are soldiers protecting us	1.00	-0.05	-0.04	-0.06	-0.04
2. I told myself Israel has a strong army and the ability to combat any threat	0.91	-0.12	0.11	-0.10	-0.02
3. I told myself that we stand on guard ready for every scenario	0.89	0.17	-0.16	0.05	-0.05
4. I told myself that there is no need to fear because the IDF is the strongest army in the Middle East	0.78	0.03	0.12	0.01	-0.05
5. I told myself that we can be aggressive when we need to be	0.64	0.26	0.04	-0.01	0.02
6. Ultimately, we have fought them many times before and won	0.63	0.10	0.25	-0.09	0.11
7. I told myself that we show the enemy that we can act forcefully	0.63	0.37	-0.06	0.04	-0.09
8. I told myself that the Iron Dome system protects us.	0.31	0.20	0.27	0.07	0.10
b. Non-militaristic ingroup empowering reappraisal					
1. I told myself that our strength is that we are more united than the Palestinians	0.07	0.75	0.08	0.08	0.05
2. I told myself that we are more moral than the Palestinians	0.33	0.58	-0.15	0.06	0.08
9. I told myself that our nation's morale and perseverance will help us overcome the difficulties we will encounter	0.46	0.52	0.01	0.00	-0.04
10. I told myself that they fear us more than we fear them	-0.07	0.48	0.41	0.16	0.05
11. I told myself that they do not have any tangible ability to harm me	0.43	-0.44	0.38	0.18	0.14
c. Outgroup-weakening reappraisal					
1. I told myself that they have little power and few weapons	0.11	-0.09	0.84	-0.08	0.04
12. I told myself that on most occasions in which they tried to hurt us, they failed	-0.01	0.25	0.80	-0.14	-0.05
13. I told myself that we have triumphed in all confrontations with them	0.06	0.27	0.77	-0.15	-0.05
14. I told myself that Hamas is only a small terrorist organization that does not threaten Israel	-0.07	-0.04	0.77	0.24	-0.01
15. I told myself that the threat is not so great, as only a handful of them engage in terrorism	0.15	-0.14	0.45	0.38	-0.11
d. Low outgroup support for violence reappraisal					
1. I told myself that the extremist views motivating the terrorists in the last wave of violence don't represent the majority of Palestinians, and the moderate majority does not pose any threat	-0.02	0.10	-0.12	0.95	0.01
2. I told myself that most Palestinians want a peaceful solution and would therefore not partake in terrorist actions.	-0.04	0.07	0.01	0.93	-0.01
3. I told myself that the Palestinian people do not support Hamas terrorism, and the threat posed by Hamas is thus limited	-0.06	0.07	0.05	0.90	-0.02
e. Distraction					
1. I tried to ignore the pictures in the video	-0.13	0.06	0.05	0.04	0.87
2. I tried to think about completely unrelated things, which don't frighten me	0.23	-0.05	-0.29	0.06	0.82
3. I looked away to avoid watching the video	-0.22	0.04	0.10	-0.09	0.78
4. I tried to think about other things, which make me happy or laugh	0.06	0.09	0.10	-0.05	0.74

Note: Promax rotation was performed. Each item's highest loading is presented in boldface.

Appendix D

Central interaction analysis from Study 1, adjusting for levels of pre-regulation fear

We conducted a two-way ANOVA to examine the interactive effect of ideology (Right, Center, and Left) as a between-subject variable and type of reappraisal (ingroup-empowering reappraisal and outgroup-weakening reappraisal) as a within-subject variable on the tendency to employ reappraisal, adjusting for levels of pre-regulation fear. The analysis revealed a significant main effect for type of reappraisal content on the tendency to employ it, with participants tending to employ ingroup-empowering reappraisal more than outgroup-weakening reappraisal, $F(1,105) = 4.0$, $p = .05$, $\eta^2 = 0.04$. There was also a significant main effect for ideology, $F(2,105) = 6.8$, $p = .002$, $\eta^2 = 0.11$, such that leftists were overall less likely to use both types of reappraisal than both rightists (*mean difference* = -0.83, $SE = 0.23$, $p = .001$, $[CI] = [-1.29, -0.36]$) and centrists (*mean difference* = -0.6, $SE = 0.26$, $p = .02$, $[CI] = [-1.12, -0.09]$).

Finally, we found the hypothesized significant interaction between reappraisal content and ideology, $F(2,105) = 11.34$, $p < .001$, $\eta^2 = 0.18$. An analysis of the simple effects for ingroup-empowering reappraisal indicated that leftists used this content less than both rightists (*mean difference* = -1.40, $SE = 0.28$, $p < .001$, $[CI] = [-1.96, -0.85]$) and centrists (*mean difference* = -0.79, $SE = 0.31$, $p = .01$, $[CI] = [-1.41, -0.18]$). There was also a marginally significant difference in the use of this content between rightists and centrists, with rightists using it more (*mean difference* = 0.61, $SE = 0.33$, $p = .07$, $[CI] = [-.04, 1.26]$). Contrary to our other hypothesis, however, we found no significant ideological differences in the frequency of using outgroup-weakening reappraisal (leftists-rightists *mean difference* = -0.25, $SE = 0.25$, $p = .32$, $[CI] = [-0.74, 0.25]$; leftists-centrists *mean*

difference = -0.41 , *SE* = 0.28 , *p* = $.14$, [CI] = $[-0.96, 0.14]$; and rightists-centrist *mean difference* = -0.16 , *SE* = 0.30 , *p* = $.58$, [CI] = $[-0.75, 0.42]$.

Appendix E

Means and standard deviations of the number of reversed recommendations (i.e., zero, one, or two), by ideology and experimental condition

	Ingroup-empowering condition	Outgroup-weakening condition	Total
Right	0.05 (0.23)	0.59 (0.87)	0.32 (0.07)
Center	0 (0)	0.85 (0.99)	0.42 (0.09)
Left	0.04 (0.19)	0.19 (0.6)	0.12 (0.08)
Total	0.03 (0.06)	0.55 (0.06)	0.3 (0.05)

Appendix F

Measurements of level of fear, in the pilot study for the experimental condition

A one-way ANOVA was conducted to examine ideological differences in levels of fear further to watching the fear-inducing video. No significant ideological differences emerged in the fear aroused by the manipulations ($F(2,27) = 0.14$, $p = .87$, $\eta^2 = 0.01$). Nonetheless, the descriptive statistics suggest that if any such difference exists, it is because rightists' fear is indeed higher (rightists: $M = 3.2$, $SD = 1.55$, centrists: $M = 3.18$, $SD = 1.33$, leftists: $M = 2.89$, $SD = 1.45$).