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Integration of negative emotions, empathy, and support for conciliatory policies in intractable conflicts

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ABSTRACT

Adaptive regulation of intense negative emotions appears crucial for reconciliation, as negative emotions often impede the resolution of intractable intergroup conflicts. Integrative emotion regulation (IER; actively taking an interest in one's own negative emotions) appears promising in this context, given previous findings of its links to empathy and support for conciliatory policies in the context of the Middle East conflict. However, prior work did not test whether these links hold when negative emotions related to the conflict (e.g. anger and fear) are elicited. We conducted two studies with Jewish-Israelis to test these links, focusing on participants' reactions to innocent Palestinians. In both studies, we measured IER, empathy (sympathy, perspective-taking), and support for conciliatory policies (humanitarian aid) and compared a negative emotion condition (Study 1: fear, $N = 240$; Study 2: anger, $N = 293$) to a neutral control condition. Our findings replicated the positive relations between IER, empathy, and support for conciliatory policies even when negative emotions were elicited. These findings are discussed in relation to prior research on emotion regulation in group contexts, including applications to conflict resolution.

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Introduction

Intractable intergroup conflicts are often violent and prolonged, perceived as existential threats, and require substantial material and psychological investments, causing significant harm to the societies involved (Bar-Tal, 2007; Kriesberg, 1998). These conflicts intensify negative emotions toward outgroups, fostering adverse attitudes and behaviours (Bar-Tal et al., 2007; Petersen, 2002) and impeding progress toward resolution (Bar-Tal, 2001; Bar-Tal et al., 2010). Some researchers have suggested the ability to regulate one's emotions may assist in the de-escalation of conflict. In one study, Halperin et al. (2013) investigated the relationship between a specific emotion regulation strategy – reappraisal, defined as construing a potentially emotion-eliciting situation in non-emotional terms (Gross, 2002, 2015) – and the tendency to support pacifying policies in intractable conflicts. Although they found reappraisal was associated with reduced negative emotions related to conflict, it did not correlate with increased empathy toward suffering outgroup members, a factor that may be crucial for reconciliation.

To better understand the links between emotion regulation and conflict de-escalation, we initiated a research project focusing on an emotion regulation style grounded in self-determination theory (SDT; Ryan & Deci, 2017), specifically integrative emotion regulation (IER), defined as the tendency to engage with one's emotional experiences (Roth et al., 2019), and shown to predict empathy in various contexts (Roth & Benita, 2023). In two

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linked studies, we examined IER as a predictor of empathy for outgroup members and support for conciliatory policies in the context of the Middle East conflict (Roth et al., 2017).

Emotion regulation and intergroup conflicts

Halperin and colleagues were the first to launch systematic research on associations between emotion regulation and support for humanitarian policies targeted at outgroup members (for a review, see Halperin, 2014; Halperin & Pliskin, 2015). They focused on reappraisal as a major type of emotion regulation expected to enhance support for conciliatory policies towards outgroup members by alleviating negative feelings (Halperin & Gross, 2011; Halperin et al., 2013). In one study, Halperin et al. (2013) found Jewish-Israelis who were trained to use reappraisal reported less anger than an untrained control group, following an anger-induction slideshow showing intense escalation between Israelis and Palestinians in Gaza. This, in turn, predicted more support for conciliatory policies. However, other studies have suggested reappraisal is not associated with empathy (Halperin & Gross, 2011; Roth et al., 2017).

Yet empathy is an important antecedent of positive relational behaviour, with a strong potential to facilitate reconciliation (Eisenberg et al., 2010). Previous research has found positive relations of empathy with positive attitudes and actions towards individuals and groups (Batson et al., 2002; Maoz & McCauley, 2005, 2009; Shih et al., 2009). Because findings on links between reappraisal and empathy are mixed, we suggest the need to look for another emotion regulation style. To that end, we propose IER, an emotion regulation style grounded in SDT (Roth & Benita, 2023; Ryan & Deci, 2017; Ryan et al., 2006). IER has been shown to affect empathy in interpersonal relations (Benita et al., 2017; Roth & Assor, 2012; Shahar et al., 2019) and thus may have a positive effect in intergroup conflict by eliciting intergroup empathy.

SDT conceptualisation of adaptive emotion regulation

SDT's definition of adaptive emotion regulation stems from its motivational focus, linking emotion regulation styles to autonomous, controlled, or amotivational processes. Within SDT, autonomous functioning reflects healthy functioning (Ryan & Deci, 2017). In line with this distinction, it identifies three parallel forms of emotion regulation: (1) integrative regulation, supporting autonomy; (2) a controlled orientation to direct, reinterpret, or minimise emotional inputs; (3) an amotivated, or dysregulated approach where emotions are poorly handled (Roth et al., 2009; Ryan et al., 2006). IER, the most adaptive form, contrasts with suppressive emotion regulation (SER), an attempt to avoid or stifle one's negative emotional experiences, generally because the emotions are experienced as threatening, or with emotional dysregulation (Roth & Benita, 2023).

Healthy emotion regulation in SDT is represented by integrated, authentic functioning, involving awareness, assimilation, and self-regulated action, aiding in understanding oneself and others (Martela & Ryan, 2023; Ryan & Deci, 2017). Simply stated, emotions serve as inputs for guiding actions (Ryan et al., 2006). Thus, IER entails two components: a receptive and non-judgmental attention to emotions, which allows an intentional exploration of the experience and its integration with one's goals and values, leading to effective personal and interpersonal functioning (Benita et al., 2021; Roth et al., 2017).

IER is closely related to mindfulness and acceptance, both of which emphasise non-judgmental awareness of present experiences (Brown & Ryan, 2003; Chambers et al., 2009; Hayes et al., 1999). The present moment does not necessarily involve emotions, but thoughts, behaviour tendencies, and physical condition and sensations (e.g. Brown & Ryan, 2003). Thus, IER shares with mindfulness the specific aspect of receptive awareness of emotional experiences (Deci et al., 2015). However, IER also involves an additional aspect: the intentional exploration of emotions (Roth et al., 2014). In fact, the correlation between IER and mindfulness is quite small, and studies have shown IER's effects on empathy and supportiveness go beyond mindfulness (Ditrich et al., 2024; for a more detailed distinction, see Roth & Benita, 2023).

Our primary argument in our two studies was that unlike reappraisal, IER may be linked to greater empathy towards the suffering of outgroup members. Reappraisal involves reframing a potentially emotion-eliciting situation in non-emotional terms (Gross, 2002), aiming to reduce the emotional impact by cognitively altering one's perception of the situation. Since empathy entails an emotional component of identifying with or resonating with others' emotions (Eisenberg et al., 2010), it follows

that a habitual effort to downplay negative emotional experiences, as in reappraisal, may not foster emotional identification with others' hardships. Conversely, a tendency to engage with one's own painful experiences (IER) might extend to a greater inclination to empathise with the adversities of others.

IER and empathy

According to Eisenberg and colleagues (Eisenberg et al., 1991, 2006, 2010), empathy comprises an emotional response that closely resembles (or is identical to) what another person is or might be feeling in a given context. Empathy also entails the ability to cognitively understand that one's own emotional reaction has been induced by another's experience. Therefore, empathy involves the cognitive ability to take another's perspective (Eisenberg et al., 1991; Feshbach, 1978; Hoffman, 1984). This cognitive ability, known as role-taking or perspective-taking, involves "non-egocentrically orienting oneself to another perspective rather than to one's own" (Eisenberg et al., 1994, p. 778; Epley et al., 2004; Roth, 2008; Roth et al., 2017) and making an inference on this basis (Eisenberg et al., 1991; Higgins, 1981).

Eisenberg et al. (2006, 2010) argued empathetic feelings often evoke two other emotional responses: emotional distress and sympathy. Emotional distress refers to a self-targeted aversive affective reaction, such as unease or anxiety, in response to vicariously experiencing the other person's feelings (Eisenberg et al., 1991). It may involve an egoistic motivation to alleviate one's own distress, not the other's adversity (Batson, 1987, 1991). Therefore, personal distress has inconsistent relations with prosocial behaviour (see Eisenberg et al., 2010) and was not at the centre of our study. Sympathy encompasses an affective response that includes feelings of sorrow or concern directed at the distressed person.[1] Research focusing on intergroup relations has demonstrated relatively consistent relations between sympathy and positive attitudes towards a wide range of stigmatised people and groups (Batson et al., 1997; Phelan & Basow, 2007), along with increased helping behaviour towards outgroup members (Batson et al., 2002; Mashuri et al., 2013; Shih et al., 2009).

IER entails a differentiated awareness and acceptance of one's own negative and positive emotions; individuals high in IER may be able to generalise that interest-based stance and develop greater understanding of and sensitivity towards the emotions of others, manifested by a more empathic stance (Roth & Assor, 2012). Thus, the ability to take an interest in one's own negative emotions may be a prerequisite to identify and emotionally resonate with the adversities of others, while avoiding them may lead to avoiding others' pain in order not to feel the emotions one consistently tries to avoid (Benita et al., 2017; Ditrich et al., 2024). In line with this conceptual assertion, Roth and Assor (2012) found IER predicted disclosure of personal difficulties with an intimate partner, listening empathetically when the partner disclosed negative emotions, and negotiating interpersonal conflicts. A study on adolescents also demonstrated a link between IER, sympathy, and prosocial behaviour in class (Benita et al., 2017), whereby IER was associated with sympathy, which, in turn, was associated with prosocial behaviour towards classmates.

In the field of intergroup conflicts, Roth et al. (2017) were the first to investigate the effect of IER in the Israeli-Palestinian conflict, and their findings formed the basis for the present research. They found an association between IER, perspective-taking, and trait sympathy. Sympathy, in turn, predicted support for humanitarian aid to innocent out-group members. These effects were found while controlling for reappraisal, education level, political opinion, and religiosity. However, they did not measure the two dimensions of empathy (sympathy and perspective-taking) with respect to a specific outgroup, nor did their studies involve the elicitation of conflict-related negative emotions. Therefore, it remains unknown whether IER predicts empathy for the other and support for conciliatory policies in situations where fear or anger associated with the conflict are present. Empathising with the other's pain when the conflict's negative emotions are activated is arguably a greater challenge, and emotion regulation styles might be particularly relevant.

Steele et al. (2019) found indirect evidence of an association between the attempt to take an interest in one's own emotions and less-biased perceptions of outgroups even in the presence of anger. In this study, reflection (as opposed to rumination) reduced bias towards Muslims after the 2013 Boston Marathon bombings, partly by reducing anger. The researchers defined reflection as meaning-making about emotions experienced during exposure to outgroup aggression. This definition resonates with the definition of IER. Thus, although Steele et al. did not measure empathy, and even though the intergroup conflict they studied is not comparable to the

Middle East conflict in duration and intensity, their work provides a first indirect indication of possible correlates of IER when negative emotions are present.

In sum, in conflictual intergroup relations, IER may predict sympathy and perspective-taking towards out-group members (e.g. innocent Palestinians) and support for conciliatory policies (e.g. humanitarian aid), because IER involves taking an interest in one's own emotions and trying to understand their sources; this may pave the way towards recognising the perspectives and feelings of others, and this, in turn, may predict intentions to help them.

The present studies

We conducted two studies to investigate the consequences of emotion regulation styles following the arousal of negative emotions towards the outgroup (fear or anger vs. a control/neutral group) in the context of the Middle East conflict, one of the most enduring and violent conflicts in history, between Jews and Palestinians, two national movements that claim Israel/Palestine as their homeland (Bar-Tal et al., 2010). Research has repeatedly shown outgroup-directed anger and fear can predict the tendency towards offensive action against the outgroup (Jarymowicz & Bar-Tal, 2006; Mackie et al., 2000; Skitka et al., 2006, 2004) and may lead to the adoption of positions that hinder progress towards conflict resolution (e.g. Maitner et al., 2006; Pettigrew & Tropp, 2008; Spanovic et al., 2010).

Based on the preceding argumentation, we hypothesised the inclination to use IER (vs. SER or dysregulation) would predict higher levels of empathy (perspective-taking and sympathy) and stronger support for conciliatory policies (humanitarian aid) regardless of the experimentally induced emotions (fear, anger). Although not at the centre of the present studies, because previous findings suggest conflict-related negative emotions, such as fear and anger, predict lower support for conciliatory policies (Skitka et al., 2004; Spanovic et al., 2010; Tam et al., 2007), we hypothesised the arousal of conflict-related negative emotions (fear/anger vs. a neutral condition) would predict a decrease in empathy (perspective-taking, sympathy) and support for conciliatory policies (humanitarian aid). Finally, we hypothesised IER would serve as a moderator of the effect of induced emotions (fear/anger vs. neutral). Thus, taking an interested stance towards one's emotions might involve a deeper understanding of how the induced negative emotions influence attitudes and behaviour. This understanding, in turn, could enable individuals to counteract automatic responses driven by the inherent action tendencies of fear or anger (Ditrich et al., 2024; Frijda, 1987; Koch et al., 2018). In the specific context of our study, these automatic responses may manifest as fear-induced threats or anger-driven desires for revenge. Hence, our hypothesis included not only the anticipation of a main effect of IER but also the expectation that under conditions of high IER, there would be no discernible differences between the fear/anger and neutral conditions regarding empathy and support for conciliatory policies. Conversely, when IER was low, the distinction between the two emotional conditions (fear/anger) would become more pronounced, because when IER was low, the automatic inherent action tendency of fear or/and anger would be more evident.

In Study 1, we examined the research hypotheses in the context of the arousal of fear (vs. control). In Study 2, we examined the same hypotheses for anger (vs. control). Both studies targeted emotions about the aggression of Hamas terrorists; empathy and support for conciliatory policies specified innocent Palestinians suffering from the conflict but not involved in it. We assumed emotion regulation would mainly affect emotions and behaviour towards outgroup members who were innocent victims of the conflict, not towards individuals contributing to conflict escalation (e.g. Hamas terrorists), because in the latter case, negative emotions and policies are in a way "rational".

Study 1: fear elicitation and associations among IER, empathy, and support for conciliatory policies

In Study 1, we tested three hypotheses:

(1) We hypothesised a main effect of IER. Participants with a greater inclination to use IER would show higher levels of empathy (perspective-taking, sympathy for innocent Palestinians in Gaza) and more support for conciliatory policies (humanitarian aid) regardless of the experimentally induced fear.
(2) Based on the literature review, we hypothesised participants viewing a fear-eliciting film would report lower levels of empathy (perspective-taking, sympathy for innocent Palestinians in

Gaza) than participants watching a neutral film and show less support for conciliatory policies (humanitarian aid).

(3) We hypothesised IER would moderate the effect of the elicited emotions (fear vs. neutral). Specifically, when IER was low, the difference between the fear and neutral conditions in terms of empathy (sympathy, perspective-taking) and support for conciliatory policies (humanitarian aid) would be greater than when IER was high, likely due to enhanced regulatory capacity.

Method

Participants

The sample size was determined based on previous research and power analysis. Previous research, which included two studies with approximately 290 participants, revealed medium-sized effects (Roth et al., 2017). In addition, a-priori power analysis suggested 146 participants were required to obtain 80% power for detecting a medium-sized effect ($f = 0.15$) in regression analysis (Cohen et al., 2003). Two hundred and forty Jewish-Israeli college students were recruited for the study (mean age = 25.05, $SD = 2.15$, 20–37 range, 36.67% males). Participants signed a consent form and were told they could stop the experimental procedure at any time. They were paid $10 (US) for participation. The study was approved by the ethical review board of the University. Twenty participants (from 260 initially) were dropped from analysis; three had incomplete self-report data for session 1, and 17 didn't proceed to session 2. Neither the demographics nor the main research variables differed for those who dropped out and those who completed the study.

The study included two online sessions 72 h apart. The first measured participants' reports of emotion dysregulation, SER, and IER (Roth et al., 2009), dispositional empathic concern, and dispositional perspective-taking (Davis, 1983). The session included a demographic questionnaire and a question on political views (dovish/hawkish). Before the second session, an experimenter made a short phone call to participants to verify they were in a quiet room without distractions, with access to a computer and open speakers. Then, the experimenter briefly explained the session:

> This experiment will include a questionnaire and a short film clip. When the film clip appears, please click the PLAY button, and enlarge the video to a full screen. Please watch the film clip carefully before moving to the next page. If you find the film too distressing, you can stop watching and update the experimenter.

The participants' current emotional state was assessed. Then, half were randomly assigned to watch a documentary film on peaceful daily life in Gaza (neutral), and half watched a news report from one of the Israeli main media channels showing an Israeli broadcast team under sniper fire from Hamas terrorists near the Gaza border (fear-eliciting).

After participants had viewed the film, we reassessed their emotional state and asked them to respond to questionnaires measuring: (1) their sympathy for and inclination to take the perspective of innocent Palestinians in Gaza (a self-developed scale, based on Davis (1983), specifically related to Gaza citizens); (2) their support for humanitarian aid for innocent Palestinians (Roth et al., 2017). Finally, participants were asked whether they had seen the video before, and if so, in what context.

Measures completed before fear elicitation

Unless otherwise designated, items were rated on a 7-point Likert scale, from "do not agree at all" (1) to "agree very much" (7), with one exception. For the interpersonal reactivity index (IRI; Davis, 1983), items were rated on a 5-point Likert scale, from "does not describe me well" (1) to "describes me very well" (5).

Emotion regulation. We measured IER, SER, and dysregulation.

IER. In a 6-item measure adopted from Roth et al. (2009), participants rated such items as "In situations in which I feel stressed or anxious, it's important for me to try to understand why I feel that way". Cronbach's alpha was .82. In line with the conceptual distinction made in the introduction, it is important to note that Ditrich et al. (2024) found a negligible association between IER and mindfulness ($r = .096$, ns). They also demonstrated that IER predicts outcomes such as empathy and supportiveness beyond mindfulness and traits like openness to experience ($r = .37$, $p < .05$).

SER. A 6-item scale from Roth et al. (2009) measured the extent to which participants tried to avoid or minimise the experience of negative emotions. A sample item: "When I feel stress or anxious, I often try to hide it so that others won't notice". Cronbach's alpha was .82.

Dysregulation. A 6-item scale from Roth et al. (2009) measured the extent to which participants experienced

fear and anxiety as overwhelming and impairing their task-oriented functioning. A sample item: "My ability to function decreases significantly when I feel stressed or anxious". Cronbach's alpha was .85.

IRI. The IRI includes four subscales examining individual differences in empathy (Davis, 1983). We used two subscales. Perspective-taking is a 7-item subscale measuring the tendency to spontaneously adopt the psychological point of view of others. A sample item: "I believe that there are two sides to every question and try to look at them both". Cronbach's alpha was .75. Empathic concern is a 6-item subscale measuring "other-oriented" feelings of sympathy and concern for unfortunate others. A sample item: "I would describe myself as a pretty soft-hearted person". Cronbach's alpha was .77.

Measures completed following fear (vs. neutral) elicitation

Current emotional state questionnaire. Based on Gross (1998), participants were asked to rate the extent to which they felt the following emotions: anger, anxiety, calmness, sadness, pleasure, interest, fear, hatred, shame, and guilt. This questionnaire was given before and after watching the fear-eliciting or neutral film.

Sympathy for and perspective-taking on innocent Palestinians in Gaza. This 12-item self-developed scale, based on the IRI (Davis, 1983), focused specifically on the suffering of innocent Palestinians. Six items measured sympathy for innocent Palestinians; for example, "When I see in the news the suffering of innocent residents in Gaza, I feel sorry for them". Cronbach's alpha was .93. Six items focused on perspective-taking; for example, "I try to understand the point of view of innocent Palestinian in Gaza". Cronbach's alpha was .91.

Support for conciliatory policy. We measured support for conciliatory policy, in this case support for humanitarian aid, using a 3-item scale from Roth et al. (2017), an elaboration of Halperin and Gross's (2011) 2-item scale. Participants ranked their level of support for: "allowing the transfer of food to innocent Palestinians"; "allowing the transfer of medicine to innocent Palestinians"; "providing medical care to injured Palestinian women and children in Israeli hospitals". Cronbach's alpha was .86.

Films used to elicit emotions

Fear-eliciting film. A news broadcast video described a team of Israeli reporters caught in Hamas terrorist sniper fire near the Gaza border. An independent pilot study showed it induced fear, along with interest, anger, and sadness. Past research demonstrated it is difficult to elicit fear in isolation from interest (Gross & Levenson, 1995) or anger (Halperin et al., 2011; Javela et al., 2008). Film length: 1:52 min.

Neutral film. A documentary film described life in Gaza. An independent pilot study showed it induced no negative emotions. Film length: 1:54 min.

Demographics

In addition to general demographics like gender and socioeconomic status, participants provided information on their education, religiosity, and political views (hawkish/dovish). The data were coded in such a way that higher scores denoted higher education level, higher extent of religiosity, higher economic status, and higher hawkish political views.

Results

To test the quality of the randomised assignment to experimental conditions, we conducted a one-way between-group analysis of variance (ANOVA) with demographics as outcomes. The analysis revealed no differences between conditions (fear-inducing/neutral film) for education level, $F(1, 238) = 2.67$, $p = .10$; $d_{Cohen} = .21$, political view, $F(1, 238) = .39$, $p = .53$; $d_{Cohen} = .08$, socioeconomic status, $F(1, 238) = .25$, $p = .62$; $d_{Cohen} = .06$, or religious conviction, $F(1, 238) = 1.61$, $p = .21$; $d_{Cohen} = .16$.

Manipulation check

We examined the two films' efficacy in arousing fear/neutral emotions related to the conflict, using a *t*-test analysis for independent samples. Before watching the film, participants in the fear-eliciting film group reported significantly lower fear than participants in the neutral film group ($M = 1.51$, $SD = .83$ and $M = 1.85$, $SD = 1.23$, for experimental and control groups respectively), $t\ (238) = -2.474$, $p = .007$, Cohen's $d = .320$. However, as expected, after watching the film, the fear-eliciting film group reported significantly higher fear ($M = 4.41$, $SD = 1.86$) than the neutral emotion group ($M = 1.43$, $SD = .78$), $t\ (238) = 16.05$, $p < .001$, Cohen's $d = 2.072$. As mentioned, in the pilot study, the film elicited fear and anger to the same extent. To examine whether it managed to induce fear distinctively from anger, we conducted an ANOVA, with fear and anger as within-subject effects and type of film as a between-subject effects.

That is, we examined whether the changes in fear and anger before and after the manipulation differed for the two conditions of emotion elicitation (fear-eliciting/neutral film). Only the interaction between the changes in fear and film type was significant, with higher means after the manipulation, $F(1, 238) = 306.25$; $p < .001$; $\eta^2 = .563$. Thus, the interaction between anger and film type was not significant, $F(1, 238) = 2.60$; $p = .108$; $\eta^2 = .011$.

Descriptive statistics and preliminary analyses

Table 1 presents means, standard deviations, and intercorrelations among the research variables. In line with past research (Benita et al., 2021), we found low relations among the three regulatory styles (IER, SER, dysregulation), indicating the distinctions between them. Next, we examined the correlations among the three regulatory styles and the controlled variables: political view, religiosity, education level, and socioeconomic status. IER had weak but significant relations with political view: the higher the left-wing views, the higher the IER (this correlation has not been found in previous studies; Roth et al., 2017). As predicted, IER correlated positively with Davis's (1983) measure for the trait of perspective-taking, measured before the film manipulation. SER correlated negatively with sympathy and perspective-taking, measured before the film manipulation.

Table 1 includes the correlations among the three regulatory styles and the dependent variables measured after the emotion-eliciting manipulation. As expected, IER correlated positively and significantly with the three dependent variables (sympathy and perspective-taking for innocent Palestinians, support for humanitarian aid), and SER correlated negatively with sympathy for innocent Palestinians.

Primary analyses

First, we hypothesised a main effect of IER regardless of the emotion elicitation. Second, we hypothesised a main effect of film condition. We expected lower empathy and support for conciliatory policies in the fear condition than the neutral condition. Third, we hypothesised the effect would be stronger when IER was low. That is, when IER was low, the effect of induced fear on empathy and support for conciliatory policies would be stronger than when IER was high. The analyses were conducted using Model 1 of *Process* for SPSS (Hayes & Rockwood, 2017). Following Aiken et al. (1991), we centred the independent variables and regressed each dependent variable simultaneously on condition (film type), IER, and their interaction.

In line with the correlation patterns, IER was significantly related to perspective-taking, sympathy, and support for humanitarian aid for innocent Palestinians (Table 2) regardless of emotion elicitation. A marginally significant result emerged for the difference between the two film conditions but only for sympathy ($\beta = .12$; $p = .050$). Importantly, we did not find a significant moderation effect on any of the outcome variables. We conducted the same analyses controlling for political view, education level, and religiosity

Table 1. Descriptive statistics and zero order correlations among Study 1 variables ($N = 240$).

Variable	1	2	3	4	5	6	7	8	9	10	11	12
Measured before manipulation												
1. IER	–											
2. SER	−.23**	–										
3. Dysregulation	.00	−.05	–									
4. Sympathy (Davis, 1983)	.10	−.19**	.01	–								
5. Perspective-taking (Davis, 1983)	.34**	−.21**	−.10	.42**	–							
6. Hawkish vs. dovish: political view	−.19**	.11	−.02	.08	−.09	–						
7. Level of religiosity	.02	−.11	−.05	.18**	−.05	.48**	–					
8. Education level	.10	−.07	−.04	.09	.01	.09	.20**	–				
9. Economic status	.10	.02	.00	−.10	.03	−.10	−.13*	−.10	–			
Measured after manipulation												
10. Sympathy for Palestinians	.23**	−.13*	−.03	.26**	.27**	−.45**	−.14*	−.02	.09	–		
11. Perspective-taking on Palestinians	.34**	−.07	−.06	.09	.38**	−.49**	−.15*	−.01	.12	.75**	–	
12. Conciliatory policy for Palestinians	.24**	−.09	−.12	.10	.23**	−.44**	−.14*	.01	.04	.69**	.65**	–
M	5.11	3.65	3.76	3.90	3.83	3.06	1.36	3.82	3.50	5.28	4.45	4.81
SD	.93	1.14	1.21	.65	.56	1.28	.60	1.07	.78	1.20	1.32	1.39

*$p < .05$, **$p < .01$.

Table 2. IER, conditions (fear/neutral), and their interaction as predictors of perspective-taking, sympathy, and support for conciliatory policies.

Predictors	*β*	*B*	*SE*	*t*	*P* value	95% *CI* *LL*, *UL*
Dependent variable: perspective-taking on innocent Palestinians						
Movie type	.10	.27	.16	1.69	.092	−.045, .588
IER	.35	.50	.09	5.72**	<.001	.328, .672
Movie type*IER	.04	.11	.18	0.63	.529	−.235, .456
Dependent variable: sympathy for innocent Palestinians						
Movie type	.12	.30	.15	1.97	.050	.000, .596
IER	.23	.30	.08	3.62**	<.001	.136, .460
Movie type*IER	.01	.01	.17	0.08	.937	−.312, .338
Dependent variable: conciliatory policy for innocent Palestinians						
Movie type	.09	.26	.18	1.47	.143	−.087, .602
IER	.25	.37	.10	3.89**	<.001	.183, .558
Movie type*IER	.07	.21	.19	1.10	.271	−.165, .587

*$p < .05$, **$p < .01$.
Note: $N = 240$. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit.

(including them as a covariates). The results were similar to those presented here (Table 1, statistical supplement, https://researchbox.org/1784&PEER_REVIEW_passcode=GITIVK), with additional significant group differences (type of film) on the other two outcomes: perspective-taking and humanitarian aid.

In sum, the results partially supported our hypotheses. First, as hypothesised, we found a main effect for IER on sympathy, perspective-taking, and support for humanitarian aid regardless of emotion elicitation. Second, contrary to our hypothesis, no moderation effect appeared. Finally, the fear-eliciting condition did not show lower levels of empathy and support for conciliatory policies than the control condition, thus refuting past findings. Refuting our expectation that the two groups' fear levels would be equal before manipulation, the fear-eliciting film group reported lower levels of fear. However, as expected, they reported higher levels of fear afterwards. Because the difference before the manipulation worked against the manipulation, it seems this was not a significant issue.

Study 2: conflict-related anger elicitation and associations among IER, empathy, and support for conciliatory policies

Obviously, fear is not the only emotion activated by intractable and violent conflicts with the potential to promote escalation. Violent acts, whether committed by the military or terrorists, will increase the extent and variety of negative emotions, especially anger, and thus are likely to increase support for aggressive action against the outgroup (Spanovic et al., 2010; Steele et al., 2019). Anger, like fear, may be challenging to regulate in periods of conflict escalation. Therefore, we conducted a second study with a similar design but with conflict-related elicitation of anger instead of fear. In this study, we measured participants' personal distress, in addition to sympathy and perspective-taking (Davis, 1983). The goal was to expand our understanding of the relations between the three emotion regulation styles and the three dimensions of empathy.

We tested three hypotheses similar to those in Study 1, but in relation to elicitation of anger:

(1) We hypothesised participants with a greater inclination to use IER would report higher levels of empathy (perspective-taking, sympathy for innocent Palestinians) and show more support for conciliatory policies (humanitarian aid) regardless of the experimentally induced anger.
(2) We hypothesised participants viewing the anger-eliciting film would report lower levels of empathy (perspective-taking, sympathy for innocent Palestinians) than participants viewing the neutral film and show less support for conciliatory policies (humanitarian aid).
(3) We hypothesised that IER would moderate the effect of the elicited emotions (anger vs. neutral). Specifically, when IER was low, the difference between the anger and neutral conditions in terms of empathy (perspective-taking, sympathy) and support for conciliatory policies (humanitarian aid) would be greater than when IER was high, presumably because of better regulatory capacity, which would manifest in the anger condition.

Method

Participants

Given the medium effect size obtained in Study 1 (beta coefficients of .33, .21, and .24), the power analysis was based on medium effect size ($f = 0.15$) and power of .80 (Cohen et al., 2003). For regression analysis, the required sample size was 146. Two hundred and ninety-three Jewish-Israeli college students were recruited (mean age = 24.65, $SD = 2.89$, 15–38 range, 25.3% males). Eighteen were dropped from analyses (initial sample was 311 participants). One had incomplete self-reported data for session 1; 17 didn't proceed to session 2.

Procedure and measures

Study 2 included the same procedure and measures as Study 1 with three differences. First, anger related to the conflict was induced instead of fear. Half the participants were randomly assigned to watch a documentary film on peaceful daily life in Gaza (as in Study 1) and half watched a news report on a Hamas rally in Gaza, which included provocations and threats against Israel and Israelis. Second, emotion regulation styles were measured in relation to anger. Third, personal distress was measured in addition to sympathy and perspective-taking.

Measurements

The measures were identical to those in Study 1. Cronbach's alpha coefficients were satisfactory (Table 3).

Films used to elicit emotions

Anger-eliciting film. We used a news report covering a Hamas rally in Gaza, including interviews with Palestinian men, women, and children who threatened and insulted Israel and Israelis. An independent pilot study showed it induced anger and interest. Film length: 2:10 min.

Neutral film. This was the same documentary film as in Study 1 describing daily life in Gaza. Film length: 1:54 min.

Results

To test the quality of the randomised assignment to experimental conditions, we performed a one-way ANOVA with demographics as outcomes. The analysis revealed no differences between conditions (anger-eliciting/neutral film) for education level, F (1, 291) = 1.00, $p = .32$; $d_{Cohen} = .11$, political view, F (1, 291) = 0.13, $p = .72$; $d_{Cohen} = .04$, socioeconomic status, F (1, 291) = 0.03, $p = .86$; $d_{Cohen} = .02$, or religious conviction, F (1, 291) = 0.50, $p = .48$; $d_{Cohen} = .08$.

Manipulation check

We examined the two films' efficacy in arousing conflict-related anger/neutral emotion, with a t-test analysis for independent samples (anger-eliciting/neutral film). Before watching the film, participants did not differ in reported anger, t (291) = 1.13, $p = .259$, Cohen's $d = .132$ (anger: $M = 1.69$, $SD = 1.12$; neutral: $M = 1.56$, $SD = .89$). However, as expected, after watching the films, the anger-eliciting film group reported significantly higher anger ($M = 4.42$, $SD = 1.83$) than the neutral emotion group ($M = 1.93$, $SD = 1.60$), t (291) = 12.41, $p < .001$, Cohen's $d = 1.450$. To examine whether the anger-eliciting film induced anger distinctively from fear, we conducted an ANOVA with anger and fear as within-subject effects and type of film (anger-eliciting/neutral) as a between-subjects effect. We were interested in the interactions between the within-subject variables and emotion-eliciting conditions; that is, whether the changes in anger and fear before and after the manipulation differed for the conditions of emotion elicitation. Both interactions were significant, but the interaction between the level of anger before and after the manipulation with film condition resulted in a large effect size, while the effect size of the interaction between fear and film condition was only medium: anger, F (1, 291) = 109.09; $p < .001$; $\eta^2 = .273$; fear, F (1, 291) = 22.06; $p < .001$; $\eta^2 = .070$.

Descriptive statistics and preliminary analyses

Table 3 presents all means, standard deviations, and intercorrelations among research variables. In line with past research (Brenning et al., 2015; Roth et al., 2017), we found low associations among the three regulatory styles (IER, SER, dysregulation), indicating the distinctions between them. The correlations of the three regulatory styles with religiosity, education level, socioeconomic status, and political views were not significant.

We computed correlations between the emotion regulation variables and dispositional empathy based on Davis's (1983) measures. As predicted, IER correlated positively with Davis's measures of sympathy and perspective-taking; SER correlated positively with perspective-taking; dysregulation correlated negatively with perspective-taking and positively with personal distress.

Finally, we examined correlations of the three regulatory styles with the dependent variables (sympathy, perspective-taking, support for humanitarian aid), measured after the emotion-eliciting manipulation. As expected, IER correlated positively and significantly with the three dependent variables, and SER correlated positively with perspective-taking.

Primary analyses

First, we hypothesised a main effect of IER, whereby IER would be related to sympathy, perspective-taking, and support for humanitarian aid regardless of the conflict-related emotion elicitation. Second, we expected a main effect of film condition.

Table 3. Descriptive statistics and zero order correlations among study 2 variables ($N = 293$).

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
Measured before manipulation													
1. IER	–												
2. SER	.03	–											
3. Dysregulation	.00	−.16**	–										
4. Sympathy (Davis, 1983)	.31**	−.05	.08	–									
5. Perspective-taking (Davis, 1983)	.50**	.14*	−.20**	.36**	–								
6. Personal distress (Davis, 1983)	.08	−.05	.38**	.11	−.21**	–							
7. Hawkish vs. dovish: political view	.06	−.07	−.03	−.01	−.03	.01	–						
8. Level of religiosity	.11	−.03	−.01	.10	.02	.02	.49**	–					
9. Education level	−.05	.08	−.06	−.04	−.06	.06	.12*	−.10	–				
10. Economic status	−.04	.08	−.11	−.07	.02	−.05	−.10	−.13*	.05	–			
Measured after manipulation													
11. Sympathy for Palestinians	.24**	.04	.05	.33**	.26**	.01	−.44**	−.12*	−.17**	.08	–		
12. Perspective-taking on Palestinians	.33**	.13*	.00	.23**	.40**	−.06	−.49**	−.18**	−.13*	.11	.77**	–	
13. Conciliatory policy for Palestinians	.16**	.00	−.01	.20**	.18**	−.02	−.52**	−.19**	−.08	.01	.72**	.59**	–
M	4.93	3.39	3.48	3.88	3.75	2.55	3.2	1.47	3.80	3.36	5.06	4.26	4.48
SD	1.11	1.10	1.19	.65	.66	.76	1.25	.70	1.07	.80	1.34	1.27	1.38
Cronbach's alpha	.87	.84	.84	.69	.83	.69					.93	.89	.85

*$p < .05$, **$p < .01$.

Specifically, we expected lower empathy (sympathy, perspective-taking) and support for conciliatory policies (humanitarian aid) in the anger condition than in the neutral condition. Finally, we hypothesised IER would moderate the effect of emotion induction. Specifically, when IER was low, the difference between the anger and neutral conditions on the outcome variables would be more pronounced than when IER was high. The analyses were conducted using Model 1 of *Process* for SPSS (Hayes & Rockwood, 2017). Following Aiken et al. (1991), we centred the independent variables and regressed each dependent variable simultaneously on film type, IER, and their interaction (Table 4).

In line with the correlations in Table 3, IER had a significant effect on perspective-taking, sympathy, and support for humanitarian aid regardless of emotion induction. Interestingly, we did not find a significant difference between the film conditions on any outcome variables. Nor did we find a significant moderation effect of IER on the difference between the film type on sympathy, perspective-taking, and support for humanitarian aid. Given the associations of religiosity, political views, and education with the outcome variables, we conducted the same analyses controlling for these variables (Table 2, statistical supplements, https://Researchbox.org/1784&PEER_REVIEW_passcode=GITIVK). The results were similar to those presented here.

Table 4. IER, conditions (anger/neutral), and their interaction as predictors of perspective-taking, sympathy, and support for conciliatory policies.

Predictors	*β*	*B*	*SE*	*t*	*P* value	95% *CI* *LL*, *UL*
Dependent variable: perspective-taking on innocent Palestinians						
Movie type	−.01	−.03	.14	−0.19	.846	−.306, .251
IER	.34	.39	.06	6.04**	<.001	.260, .512
Movie type*IER	.07	.17	.13	1.31	.190	−.084, .420
Dependent variable: sympathy for innocent Palestinians						
Movie type	.04	.12	.15	0.77	.442	−.184, .421
IER	.23	.28	.07	4.08**	<.001	.147, .420
Movie type*IER	.02	.05	.14	0.35	.727	−.225, .322
Dependent variable: conciliatory policy for innocent Palestinians						
Movie type	.02	.07	.16	0.43	.669	−.246, .383
IER	.16	.20	.07	2.75**	.006	.057, .342
Movie type*IER	−.01	−.03	.14	−0.22	.828	−.316, .253

*$p < .05$, **$p < .01$.

Note: $N = 293$. *CI* = confidence interval; *LL* = lower limit; *UL* = upper limit.

General discussion

The findings of both studies corroborate the preliminary findings of relations among IER, sympathy, and humanitarian aid by Roth et al. (2017). Building on this previous research, we found the adaptive correlates of IER (empathy and support for conciliatory policies) existed even when fear and anger related to an intractable conflict were present. Together, the studies suggest greater interest in and more differentiated awareness of one's personal negative emotions may allow a greater interest in and sensitivity towards the emotions of others, and this may manifest through an empathic stance, even during conflictual intergroup relations. Previous research found an association between IER and empathy in several relational contexts, including intimate partners (Roth & Assor, 2012; Shahar et al., 2019), classmates (Benita et al., 2017), and outgroup members in interactable conflict (Roth et al., 2017). The present studies add the elicitation of conflict-related negative emotions, a condition which makes empathy for outgroup members' adversities more challenging.

Importantly, our findings suggest IER is related to empathy even when the others are part of an outgroup that evokes emotions of fear or anger in the context of violent conflict. Conflict-related fear and anger did not decrease the association between IER and the outcomes (empathy, support for conciliatory policies). However, our hypothesis that the difference between the induced negative emotions on empathy and support for conciliatory policies would be changed contingent on the level of IER was not supported. Contrary to our expectations, fear and anger induction did not have any effect on the outcome variables; therefore, there was no effect to moderate.

Following past research demonstrating negative emotions related to a conflict lead to escalation (Cheung-Blunden & Blunden, 2008; Skitka et al., 2006; Spanovic et al., 2010), we hypothesised participants in the negative emotion condition (fear/anger) would report lower levels of perspective-taking and sympathy for innocent Palestinians and less support for humanitarian aid than those in the neutral condition. The results of the fear study (Study 1) did not support this hypothesis. Sympathy was marginally affected by group (fear-eliciting/neutral films), but perspective-taking and support for humanitarian aid were not. Similarly, in the anger study (Study 2), we did not find any differences between groups. In light of past research (Skitka et al., 2004; Spanovic

et al., 2010; Tam et al., 2007), these findings are surprising. One possible explanation centres on the unique characteristics of the long-lasting, violent Middle East conflict. All participants were born into it, and most had served in the Israeli army, as conscription is mandatory. Therefore, their attitudes towards the conflict may have been cohesive and stable, making changes based on situational manipulations of emotions difficult. Future research should explore other intergroup conflicts which are less heated and less prolonged, as intergroup perceptions may be more malleable.

In our two studies, the target outgroup members were innocent Palestinians who had not participated in violence and may have suffered from it. Future research should examine whether IER predicts an individual's cognitive differentiation between aggressors (violent outgroup members) who directly evoke negative emotions and innocent outgroup members who do not engage in aggression and are not the source of the negative emotions. An individual with a sense of "outgroup complexity" has a more complex view of the outgroup, is able to distinguish among different subgroups, and believes the outgroup includes people with diverse characteristics (Fiske & Neuberg, 1990). Outgroup complexity has been correlated to low prejudice and high intergroup tolerance (Wenzel et al., 2008). Given its explorative nature, IER may be related to a more nuanced understanding of differences between aggressors and non-aggressors. Theoretically, the tendency of people high on IER to cognitively differentiate between aggressors and non-aggressors points to a possible additional explanation of the association between IER and empathy, even in challenging situations like violent conflicts. Practically, it suggests useful input for interventions focusing on conflict resolution that are based on emotion regulation, empathy, and attitudes towards outgroup members.

Implications

Despite the predictive power of IER and its potential to support empathy and reconciliation, the ability to create interventions based on IER is quite limited, because emotion regulation is learned through long socialisation. In contrast to other more instrumental behavioural practices, it is relatively stable (Chambers et al., 2009) and cannot be taught and learned easily. Thus, the applicability of this approach is limited by the need for long and dedicated training. Nevertheless, our insights can be used by professionals to help parents and teachers create home and classroom environments where negative emotions are viewed as legitimate and as carrying valuable information, with the possibility of developing intimacy between educator and child (Katz et al., 2012).

Limitations

Our studies had several limitations that should be addressed. The measurement of IER and the outcome variables was based on self-reports. This design does not allow causal inferences on the impact of IER in intergroup conflicts. However, we focused on emotion regulation as a stable trait not situational arousal; in this understanding, the situational manipulation of emotion regulation styles might be counterproductive. We predicted the general tendency to take an interest in one's own negative emotions may be extended to taking an interest in others' adversities. A tendency to explore one's emotions (rather than avoid them) is different from a momentary situational arousal of emotion exploration, especially when the expectation is of an association with a general tendency to empathise with outgroup members in a long-lasting, stable conflict. Therefore, despite the shortcomings of self-reports, this seems the most suitable method to test our hypotheses.

A second limitation was the elicitation of negative emotions through films. A longitudinal study examining the consequences of IER in real escalation and de-escalation phases of a conflict may evoke more authentic (in-situ) negative emotions related to the conflict and strengthen the ecological validity of our results.

Conclusion

The studies replicate and extend past research by showing that taking an interest in one's own negative emotions is related to taking an interest in and empathising with the adversity of others, even when they are members of an opposing group in the context of a violent conflict, and conflict-related negative emotions are activated. Conflict-resolution interventions focusing on emotions and emotion regulation can be challenging to implement, but theory and empirical evidence suggest they may be beneficial in educational contexts where educators

want to focus on promoting empathy for and positive perceptions of outgroups.

Note

1. Researchers have used various terms equivalent to Eisenberg's conception of "sympathy", including "personal concern" (Davis, 1983), Batson's (1987, 1991) concept of "empathy", and Goetz et al.'s (2010) concept of compassion. For the sake of consistency and clarity, we use "sympathy".

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Ethical approval

The study was approved by the ethical review board of the Human Subject Research Committee at the University.

Informed consent

Informed consent was obtained from all individual participants included in the study.

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We report how we determined sample size, as well as all data exclusions, manipulations, and measures, and we follow JARS (Kazak, 2018). Data were analysed using SPSS version 29 and Process, a macro developed by Hayes (2022). The study's design and its analysis were not pre-registered. All data, analysis codes, and research materials are publicly available at the [Researchbox] and can be accessed at [https://researchbox.org/1784&PEER_REVIEW_passcode=GITIVK].

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