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# Perceptions of a Changing World Induce Hope and Promote Peace in Intractable Conflicts

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## Abstract

The importance of hope in promoting conciliatory attitudes has been asserted in the field of conflict resolution. However, little is known about conditions inducing hope, especially in intractable conflicts, where reference to the outgroup may backfire. In the current research, five studies yielded convergent support for the hypothesis that hope for peace stems from a general perception of the world as changing. In Study 1, coders observed associations between belief in a changing world, hope regarding peace, and support for concessions. Study 2 revealed the hypothesized relations using self-reported measures. Studies 3 and 4 established causality by instilling a perception of the world as changing (vs. unchanging) using narrative and drawing manipulations. Study 5 compared the changing world message with a control condition during conflict escalation. Across studies, although the specific context was not referred to, the belief in a changing world increased support for concessions through hope for peace.

## Keywords

hope, emotions in conflict, belief in a changing world, intractable conflict

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“That is where peace begins . . . Your hopes must light the way forward. There will be many voices that say this change is not possible. . . . Sometimes, the greatest miracle is recognizing that the world can change.”

—U.S. President Obama, Jerusalem, 2013

Speaking to the citizens of Israel, this historical speech made by President Obama addresses the crucial need of renewing negotiations to resolve the Israeli–Palestinian conflict. This conflict, one of the most pervasive conflicts in the world, serves as an example of a unique form of intergroup conflict referred to as *intractable conflicts* (Bar-Tal, 2013; Coleman, 2003; Kriesberg, 1993, 1998). Intractable conflicts are a severe type of intergroup conflict, seemingly resistant to peaceful resolution over long periods of time, since both sides can neither win nor seem willing to compromise to achieve peace (Azar, 1990; Bar-Tal, 2013; Coleman, 2003; Coleman, Vallacher, Nowak, & Bui-Wrzosinska, 2007; Kriesberg, 1993, 1998). Intractable conflicts involve a number of unique characteristics, one of which encompasses the perception, held by all parties involved, that the conflict is irresolvable (Bar-Tal, 2007; Kriesberg, 1993), a belief which serves as fertile ground for a total loss of hope. Feelings of futility regarding the impossibility of achieving peace further feed into the conflict’s intractability by spreading despair among those who most need to maintain hope.

In this article, we propose the changing world hypothesis, a new way of inducing hope in intractable conflicts. We use a number of methodologies, adding to the understanding of hope, and ways it can be induced indirectly within intractable conflict.

## Hope

According to Lazarus (1999), hope is an emotion that arises when visualizing a specific, meaningful goal in the future, leading to “a strong desire to be in a different situation than at present” (p. 663). This visualization is followed by affective associations and positive feelings regarding the specific future goal (Beck, Weissman, Lester, & Trexler, 1974; Snyder, 2000; Stotland, 1969). In terms of action tendency, hope has cognitive manifestations of thinking and planning ways to achieve the goal in question (Snyder, 1994, 2000; Staats & Stassen, 1985), and hope has been found to lead to

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cognitive flexibility, creativity, and risk taking (Breznitz, 1986; Clore, Schwarz, & Conway, 1994; Isen, 1990). Thus, hope can be defined as a discrete emotion manifested by a forward-oriented cognitive appraisal of a situation as improving in the future.

### *The Role of Hope in Conflict Resolution*

Previous studies regarding long-term conflicts have pointed toward hope as a crucial emotion needed to promote peace. Bar-Tal and colleagues (Bar-Tal, 2001; Jarymowicz & Bar-Tal, 2006) discuss the conceptual importance of hope within the context of conflict resolution, because it involves conceiving of new paths and behaviors toward the positively viewed goal of peace, including motivating people to hold conciliatory attitudes (see also Cohen-Chen, Halperin, Crisp, & Gross, 2014). In Northern Ireland, hope was found to be positively associated with a lower desire to retaliate, and a higher inclination to forgive the outgroup (Moeschberger, Dixon, Niens, & Cairns, 2005). Halperin and Gross (2011) found that hope regarding peace was associated with willingness to provide humanitarian aid to Palestinians during the 2008 Gaza war.

Altogether, these studies suggest that the experience of hope induces attitudes crucial for promoting conflict resolution. In addition, they suggest a relationship between future-oriented, cognitive perceptions regarding change and the experience of hope. How then can perceptions of intractable conflict, perceived as inherently unresolvable, come to be seen as resolvable in the future? The answer may lie in an analysis of the cognitive appraisal leading to hope in conflict.

### *Promoting a Belief in a Changing World*

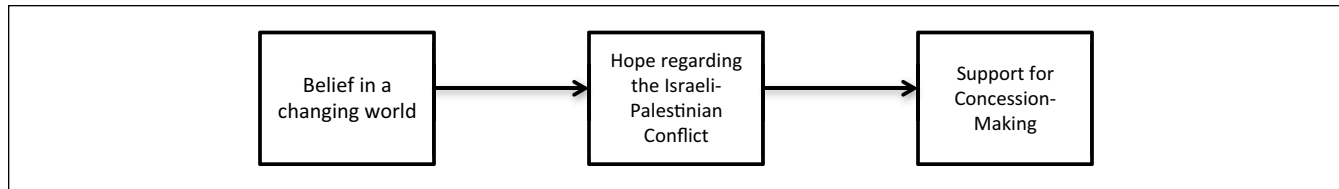
Research has shown that hope (at least in intractable conflicts) involves a cognitive appraisal that the potential for a positive change regarding a specific situation exists (Cohen-Chen et al., 2014). However, people and societies involved in the conflict adopt this perception of the conflict as stable and unchanging, meaning that it can never be resolved peacefully, and further feeding into its hopelessness. Thus, promoting hope in intractable conflicts seems to be key in promoting attitudes for peace.

Nevertheless, in intractable intergroup conflicts inducing hope is by no means a simple task. Past research indicates that within intractable conflicts, and especially when the conflict is ongoing and supported by the collective narrative, direct reference to the outgroup can “backfire” by leading to inverse and negative reactions (Bar-Tal & Rosen, 2009). This can derive from negative emotions elicited by mentioning the outgroup, or from the feeling that one is expected to abandon the accepted narrative (Bar-Tal & Rosen, 2009; Epley, Caruso, & Bazerman, 2006; Galinsky, Ku, & Wang, 2005; Vorauer & Sasaki, 2009). Thus, any intervention that seeks to promote hope about the conflict’s future would not

be able to mention the conflict without stimulating reactive negative affect and attitudes. How then to overcome this critical limitation in intractable conflict?

We believe a possible solution can be found by indirectly changing specific conflict attitudes by promoting more general changes about how people see the world (Crisp, Birtel, & Meleady, 2011; Gross, 1998; Halperin, Cohen-Chen, & Goldenberg, 2014; Hewstone, 1996). We adopted this general perspective in developing our reasoning. Specifically, guided by our belief that an approach aimed at the core characteristics of intractable conflict is needed, we sought to change the perception of conflict as irreconcilable and the associated experience of hopelessness. We argue that, given the cognitive grounding of hope discussed above and the need to avoid direct reference to the conflict, a perception of the world as dynamic and constantly fluctuating opens the possibility for imagining a positive future of peace and experience hope within a protracted conflict, followed by peace-supporting attitudes. A static perception of the world, on the other hand, would serve to perpetuate the conflict and spread hopelessness, by making it impossible to envision a future situation that is different in the first place. In sum, promoting the perception that the world is ever-changing may be the essential element that enables individuals to experience hope for peace and reconciliation. We therefore hypothesized that promoting a belief in a changing world would turn into an increased experience of hope regarding peace in the specific conflict, prompting higher levels of support for attitudes toward peace-making (Figure 1).

The efficacy of transforming attitudes by changing general mind-sets has been established in a large number of contexts in the form of implicit theories (Chiu, Hong, & Dweck, 1997; Dweck, Chiu, & Hong, 1995; Rydell, Hugenberg, Ray, & Mackie, 2007). Specifically in the context of conflict, research has shown that instilling a belief in malleability (of groups and conflicts) led participants to support conciliatory attitudes (Cohen-Chen et al., 2014; Halperin, Crisp, Husnu, Dweck, & Gross, 2012; Halperin, Russell, Trzesniewski, Gross, & Dweck, 2011). Such findings, although impressive, may raise a challenge in intractable conflicts. As stated, research suggests that removing interventions from the specific context can reduce negative emotions and attitudes in contexts of extreme conflict. Interventions involving implicit theories change perceptions regarding groups or conflicts in general, but they still focus on specific and salient constructs that may be too concrete and close to the actual situation (by referring to extreme groups or conflict situations), leading to backlash. Here we aimed to take this approach one step further by developing a neutral (neither positive nor negative) and realistic (constant change) intervention about the *world* as changing. We hypothesized that this would serve to avoid backlash caused by specific cues about the conflict, and induce hope and conciliatory attitudes within the extreme context of intractable conflict.



**Figure 1.** The changing world hypothesis applied to the Israeli–Palestinian conflict.

## The Present Research

To test our Changing World Hypothesis, we conducted five studies in the context of the conflict between Israeli-Jews and Palestinians. This setting enabled us to test our assumptions regarding hope in the very real context of intractable conflict, aiming to provide a comprehensive empirical program for intervention development. We adopted a multi-methodological approach across studies to gain convergent support for our hypothesis. Study 1 examined the hypothesized relationships using coded observations of archive materials. Study 2 was a correlational study that measured people’s self-reported belief in a changing world, hopefulness regarding peace, and support for concessions toward peace. In Study 3, we experimentally manipulated a general belief in a changing world and measured its causal effect on specific hope regarding peace and support for concessions. In Study 4, we created an applicable educational intervention, using an “association depiction task” to induce general belief in a changing world, followed by assessment of hope and support for concessions. Finally, in Study 5, we examined the effect of the changing world manipulation on hope and concession-making compared with a control condition.

## Study 1: Observational

The goal of the first study was to examine whether people who are observed as holding a belief in the world as changing are also perceived to experience hope for peace in the Israeli–Palestinian conflict, as well as observed as supportive of concession-making outside of the laboratory environment. For this study, we used a unique sample and methodology, using archive materials and vivid documentation of Israelis describing their perception of the conflict’s future. Although these materials were not created or collected for academic purposes, we identified this opportunity to observe associations between dynamism, hope, and conciliatory attitudes using a real-life context.

### Method

**Participants and procedure.** Videos were created as part of a project led by the *One Voice Movement*, an organization promoting conflict resolution between Israel and the Palestinians.<sup>1</sup> We were given access to the organization’s database, which included 20 videos containing short interviews

collected throughout the years 2009–2010 in various areas in Israel. Interviewees were addressed randomly and asked to be recorded answering the question “How do you imagine the future of the conflict in the year 2018?”

To assess these videos, six coders (4 women and 2 men) were recruited, using snowballing methods (Facebook post and email messages), and were offered US\$25 in return for participation. Coders were merely required to indicate their interpretation of the interviewee’s state of mind, and what they perceived to be the interviewee’s attitudes from the video. However, to ensure that coders were entirely blind to the experimental hypotheses, they did not answer the full questionnaire. Instead, all six coders watched all the videos, but each pair of coders answered questions relating to one of three constructs (elaborated below), and did so independently from one another.<sup>2</sup>

**Measures.** To assess participants’ observed *perception of a changing world*, we adapted items used in Hong and Chiu (1999) to form a three-item scale. Items appraised coders’ interpretation of interviewees’ perception of a changing world in general (e.g., “To what extent do you believe that the interviewee thinks that what has been in the past will continue in the future and there is no way to really change the future”). Answers ranged from 1 (*strongly disagree*) to 6 (*strongly agree*) and items were reversed to reflect the extent interviewees are seen to perceive the world as changing.

To assess levels of participants’ observed *hope* for peace in the Israeli–Palestinian conflict, we used a five-item scale, adapted from the work of Beck et al. (1974) and Long (1978). Items (e.g., “To what extent do you think that when the interviewee thinks about the future of the conflict, he/she imagines a situation which is better than now,” “To what extent do you think that the interviewee is hopeful regarding the end of the Israeli–Palestinian conflict”) ranged from 1 (*strongly disagree*) to 6 (*strongly agree*).

To assess observed *support for concessions*, we used a two-item scale based on the work of Cohen-Chen and colleagues (2014). Items tapped into coders’ perception of the extent to which interviewees support two major concessions regarding the Israeli–Palestinian conflict (“withdrawing to 1967 borders with territorial exchanges,” “concessions regarding Jerusalem”). Answers ranged from 1 (*strongly oppose*) to 6 (*strongly support*) indicating to what extent people support concessions to be made by Israel. After examining the reliability for each coder ( $\alpha > .76$  in all cases) and

**Table 1.** Correlations Between Observed Belief in a Changing World, Hope, and Support for Concessions.

	<i>M (SD)</i>	<i>SE</i>	Confidence intervals	Range	1	2	3
1. Changing world	3.58 (1.46)	.31	[3.14, 4.32]	3.83	—		
2. Hope	3.67 (1.50)	.34	[2.99, 4.31]	4.20	<b>.76**</b>		
3. Concessions	4.3 (0.88)	.19	[3.91, 4.65]	3.00	<b>.39</b>	<b>.55**</b>	—

Note. Boldface indicates statistical significance.

\* $p < .05$  level. \*\* $p < .01$  level (two-tailed).

the internal consistency between the two coders ( $\alpha > .51$  in all cases), we computed the mean of both coders' scales as the final step and utilized these measures for the analysis.

### Results and Discussion

Means, standard deviations, and zero-order correlations among variables are presented in Table 1. A significant positive association was found between a belief in a changing world and observed hope ( $r = .76, p < .001$ ), indicating that when people are perceived by others as holding a belief in a changing world, they are also perceived as hopeful regarding peace in the specific conflict. Due to the high correlation between the two variables, an exploratory factor analysis with oblique rotation was conducted. The factor analysis established the differentiation between items assessing belief in a changing world, hope, and observed support for concessions. The analysis yielded a three-factor solution, with the corresponding items loading on three separate dimensions (loadings .86 or above). In addition, we conducted a confirmatory factor analysis in Structural Equation Modeling (SEM). Results showed that a three-factor solution ( $\chi^2 = 43.76, p = .08$ , root mean square error approximation [RMSEA] = .14) fit our data better than a two-factor solution ( $\chi^2 = 67.91, p = .000$ , RMSEA = .23), and a one-factor solution ( $\chi^2 = 86.72, p = .000$ , RMSEA = .28). This coincided with our theoretical approach, by which the perception of a changing world is an overall, general belief, while hope is a discrete emotion specific to a certain situation, namely peace in the Israeli–Palestinian conflict.

In addition, perceived belief in a changing world was associated with perceived support for concessions ( $r = .39, p = .08$ ). A significant positive correlation was also found between observed hope and observed support for concessions ( $r = .55, p < .001$ ), indicating that the more hopeful interviewees were seen to be, the more they were judged to be supportive of concessions.

**Mediational analysis.** A mediation model was examined using Hayes (2013) bootstrapping Process for SPSS (Model 4), to determine whether observed belief in a changing world was associated with increased levels of perceived hope, and thus to higher levels of observed support for concessions. Results (Figure 2) revealed that the relationship between interviewees' observed belief in a changing world and observed

support for concessions ( $b = .25, SE = .14, t = 1.80, p = .08$ ) was reduced after the hope variable was included in the model ( $b = -.04, SE = .19, t = -.19, p = .84$ ) and that the indirect effect through hope was significant ( $a*b: .289$ ; 95% confidence interval [CI] = [0.023, 0.595]).

**Path analysis.** Path analysis was computed to examine whether our hypothesized model was indeed the most consistent with the data. The model fitted the data well ( $\chi^2 = 0.04, p = .84$ , comparative fit index [CFI] = 1.00, and RMSEA = .000) compared with alternative models.<sup>3</sup>

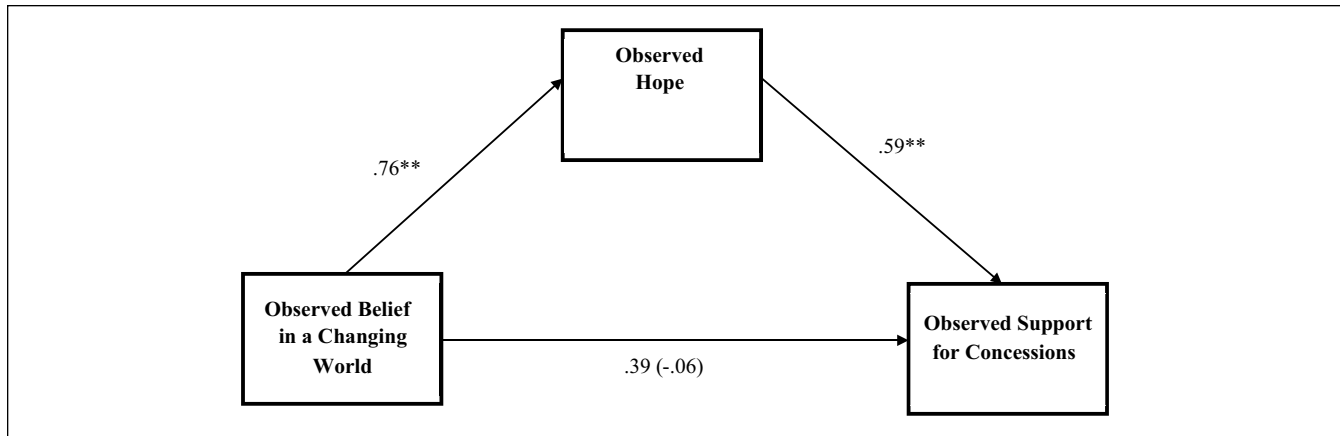
These findings lend preliminary support to the Changing World Hypothesis: that hope regarding peace is predicted by a belief in a changing world, and that hope is associated with higher support for concession-making. Mediational analysis indicated that hope mediated the link between observed belief in a changing world and increased support for compromise. This study demonstrated that belief in a changing world, hope for peace and concession-making are intuitively associated with one another when observing people discussing the conflict. As such, this study addresses an important need (Baumeister, Vohs, & Funder, 2007; Funder, 2001), by which observing behavior should be used to understand social phenomena. However, as our hypotheses deal with personal perceptions and emotional experiences, the next step was to examine whether these associations would be found when measuring *self*-perceptions.

### Study 2: Correlational

The goal of Study 2 was to examine the relationship between self-reported belief in a changing world, hope regarding peace, and support for concessions. We aimed to replicate the relationships observed in Study 1, while increasing control of our research environment and adding internal validity to our findings. For this purpose, we conducted a correlational study using self-reported measures of a belief in a changing world, levels of hope experienced with relation to peace in the Israeli–Palestinian conflict, and support for concessions on relevant issues of the conflict.

### Method

**Participants and procedure.** Two hundred and forty Jewish Israelis (41% male, mean age 36.29,  $SD = 14.60$ ) were asked



**Figure 2.** Indirect effect of belief in a changing world on perceived support for concessions through observed hope.

to fill in a short questionnaire. One hundred and nineteen were students from various academic tracks (including economics, law, government, and communications) in the Interdisciplinary Center, Herzliya. Students were addressed during the end of class and filled in the questionnaire in return for entering a raffle. One hundred and twenty one participants were recruited using an online survey platform in return for approximately US\$1. In terms of political orientation, 39% indicated their political orientation as Rightist/Hawkish, 30% stated they were Centrists, and 31% indicated they were Leftist/Dovish.

**Measures.** In this study, measures were worded as self-reports as opposed to interpretational or observational assumptions about someone else. To assess participants' *belief in a changing world*, we used the same three-item scale as the one used in Study 1 ( $\alpha = .72$ ).

To assess the extent to which people experienced *hope* regarding peace in the future of the Israeli–Palestinian conflict, we used the five-item scale used in Study 1 ( $\alpha = .88$ ). To assess *support for concessions*, we used the same two-item scale used in the previous study ( $\alpha = .83$ ).

As control variables, we measured *age*, *gender*, and self-reported *political orientation*.

## Results and Discussion

Means, standard deviations, and zero-order correlations (as well as standard error means, CIs, and range) among variables are presented in Table 2. In line with our hypothesis, belief in a changing world was found to be positively associated with hope ( $r = .45, p < .001$ ). Once again, to distinguish belief in a changing world from the hope and support for concessions variables, an exploratory factor analysis with oblique rotation was used. The analysis yielded a clear three-factor solution, with the corresponding items loading on three separate dimensions (loadings .76 or above), supporting the existence of two separate constructs. In addition, the correlation

was lower than the accepted level for multi-collinearity, which is .7 (Bagozzi, Yi, & Phillips, 1991). Belief in a changing world was also positively associated with concessions ( $r = .17, p = .01$ ), indicating that the more people hold a belief in a changing world, the more they are willing to make concessions. In addition, a significant positive correlation was found between hope for peace and support for concessions ( $r = .49, p < .001$ ), indicating that the more hopeful participants felt regarding the possibility of ending the conflict, the more they were willing to make concessions to achieve this resolution.

**Interaction effects.** No interaction effects of belief in a changing world and political orientation ( $\beta = .07, p = .20$ ), gender ( $\beta = .13, p = .51$ ), and age ( $\beta = .003, p = .66$ ) were found on support for concessions, indicating that a belief in a changing world is associated with higher support for concessions, regardless of peoples' political orientation, gender, and age.

**Mediational analysis.** A mediation model was examined using Hayes (2013) bootstrapping Process for SPSS (Model 4), to determine whether belief in a changing world was associated with support for concessions through increased levels of hope about the Israeli–Palestinian conflict specifically. Results revealed that the relationship between belief in a changing world on support for concessions ( $b = .24, SE = .09, t = 2.61, p = .01$ ) was weakened after the hope variable was included in the model ( $b = -.10, SE = .09, t = -1.12, p = .26$ ) and that the indirect effect through hope was significant ( $a*b: .346; 95\% CI = [0.238, 0.473]$ ). Thus, hope mediated the relationship between a belief in a changing world and support for core concessions (Figure 3). The indirect effect remained significant when controlling for age, gender, and political orientation.

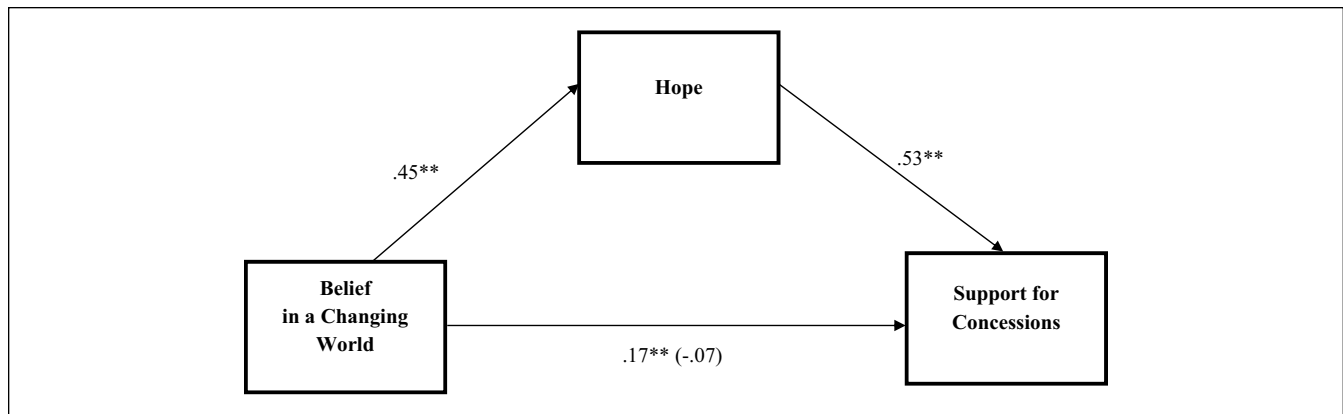
**Path analysis.** Path analysis was computed to examine whether our hypothesized model was indeed the most consistent with the data. The model fitted the data well ( $\chi^2 = 1.26, p = .26, CFI = .998$ , and  $RMSEA = .033$ ) compared with alternative models.<sup>4</sup>

**Table 2.** Correlations Between Belief in a Changing World, Imagining the Future, Hope, and Concessions.

	<i>M (SD)</i>	<i>SE</i>	Confidence intervals	Range	1	2	3	4	5
1. Changing world	4.09 (1.07)	.07	[3.95, 4.21]	5	—				
2. Hope	4.04 (1.27)	.08	[3.87, 4.19]	5	<b>.45**</b>				
3. Concessions	3.18 (1.56)	.10	[3.00, 3.39]	5	<b>.17**</b>	<b>.49**</b>			
4. Age	36.28 (14.60)	.95	[34.36, 38.2]	54	<b>-.15*</b>	-.09	-.02		
5. Gender (+F)	1.59 (0.49)	.03	[1.53, 1.65]	1	-.04	.11	<b>-.13*</b>	<b>-.25**</b>	
6. Political stance (+L)	3.85 (1.28)	.08	[3.69, 4.01]	6	<b>.21**</b>	<b>.57**</b>	<b>.63**</b>	-.08	.08

Note. Boldface indicates statistical significance.

\* $p < .05$  level. \*\* $p < .01$  level (two-tailed).

**Figure 3.** Indirect effect of belief in a changing world on support for concessions through hope.

These results further supported the Changing World Hypothesis: Participants who held a general belief in a changing world tended to experience higher levels of hope for peace, leading to more support for concessions. Importantly, this relationship was consistent for people adhering to different ideological views. These findings constitute a promising, though not a causal, indication of this association. We therefore aimed to examine whether belief in a changing world could be manipulated in Study 3.

### Study 3: Experimental

The aim of Study 3 was to examine whether the associations found in Study 2 indicated a causal path. To address this goal, we used an experimental design to induce either a general belief in a changing world or a belief in an unchanging world. In both conditions, participants read seemingly credible information in the form of a news article discussing new research that supported either the ever-changing nature of the world, or its unchanging nature (for similar approaches in conflict research, see Cohen-Chen et al., 2014; Halperin et al., 2012; Halperin et al., 2011). Next, we measured levels of hope for peace and in turn, support for concessions. We expected to find a similar pattern to the one found previously, such that participants in the Changing World condition would be more willing to make concessions toward

peace relative to participants in the Unchanging World condition, and that this effect would be mediated by increased levels of hope for peace.

### Method

**Participants and procedure.** Fifty-three participants (73% male; mean age = 28.5,  $SD = 11.36$ ) were passengers recruited randomly on the Tel-Aviv Be'er-Sheva train. In terms of political orientation, our sample leaned to the right, making the challenge of inducing hope and concession-making more difficult. 44% of participants indicated they were Rightist/Hawkish, 46% stated they were centrists, and 10% stated they were Leftist/Dovish.

**Procedure.** Participants were approached on the train and asked to fill in a survey on attitudes regarding relevant issues. Though the train ride itself takes approximately 1.5 hr, there is a 20-min interval with no stops, during which we conducted the study uninterrupted. Participants were asked to fill in two short questionnaires, seemingly unrelated to one another and put together for administrative purposes. The first part was presented as a reading comprehension test. Participants read a short text, designed to look like an article published in YNET.co.il, a leading Israeli online news website, and answered a few questions regarding the text, intended to eliminate those

who did not read the manipulation from the database. The second part, including our mediating and dependent variables, was then presented to participants as a survey meant to examine Israelis' opinions and attitudes regarding relevant political issues.

**Changing versus unchanging world manipulation.** Participants in both conditions read an article about a new study meant to develop a measure to examine, analyze, and map the extent to which the world is dynamic and ever-changing ("For the past 20 years, Professor Gerald Owen and his colleagues . . . have dedicated themselves to create a measure of our world's dynamism."). Both articles did not refer to Israel, to the Israeli–Palestinian conflict, or to conflict situations in general.

Participants in the Changing World condition ( $n = 25$ ) learned that the study's results indicate that social and political realities are dynamic ("Our team has found a distinct trend . . . social and political situations are dynamic; they change constantly . . . We have found that the level of dynamism . . . fluctuates between 72 and 89."). However, those in the Unchanging World condition ( $n = 28$ ) learned that overall, the world does not change and that reality is stable over time ("Our team has found a distinct trend . . . situations are stable; they stay fixed and stable over time, and trends of change are small and insignificant compared to the bigger picture, which is basically stationary . . . We have found that the level of dynamism fluctuates between 5 and 10.").

**Pilot study.** Because we did not want to reveal our study's underlying goal, we ran a separate, preliminary pilot study to establish the effect of our changing world narrative on belief in a changing world. We used an online survey platform, and participants ( $n = 70$ ) were paid approximately US\$1 to first read the manipulations, followed by statements regarding the belief in a changing world from Study 2. Results showed that our manipulation led participants in the Changing World condition to perceive the world as more dynamic and changing ( $M = 4.25$ ,  $SD = .97$ ) compared with those in the Unchanging World condition ( $M = 3.38$ ,  $SD = 1.13$ ) at  $t(68) = 3.46$ ,  $p = .001$ ,  $CI = [0.35, 1.35]$ ;  $d = .83$ . Thus, we established that our changing world manipulation convinced people that the world is dynamic. In addition, power analysis based on the effect size, a standard power of .80, and an alpha of .05 from the pilot enabled us to determine the sample size (above 24 participants), which we utilized for the subsequent studies.

**Measures.** To assess participants' levels of *hope for peace*, we used the same five-item scale used in the previous study ( $\alpha = .87$ ). To assess *support for concessions*, we formed a similar two-item scale as the previous study ( $\alpha = .77$ ), addressing the same two core issues of *borders* and *Jerusalem*, though the second item was worded slightly differently. As in the previous study, we measured *age*, *gender*, and self-reported *political orientation*.

## Results and Discussion

**Manipulation effects.** Consistent with our hypothesis, although the manipulation presented the world in general as dynamic and did not refer to the Israeli–Palestinian conflict specifically, it transformed into an experience of hope that was significantly higher ( $M = 4.23$ ,  $SD = .93$ ) compared with those in the static condition ( $M = 3.45$ ,  $SD = 1.41$ ),  $t(51) = -2.4$ ,  $p = .02$ ,  $CI = [0.11, 1.45]$ ;  $d = .65$ . A similar effect was found regarding participants' support for concessions,  $t(51) = 2.27$ ,  $p = .03$ ,  $CI = [0.09, 1.52]$ ;  $d = .63$ . This relatively simple, general manipulation led those who read a dynamic message to be significantly more supportive of Israel making major concessions at the core of the conflict ( $M = 2.86$ ,  $SD = 1.38$ ) compared with those in the static condition ( $M = 2.05$ ,  $SD = 1.20$ ).

**Interaction effects.** No interaction effects of the manipulation and political orientation ( $\beta = -.09$ ,  $p = .81$ ), age ( $\beta = .03$ ,  $p = .38$ ), and gender ( $\beta = -.83$ ,  $p = .36$ ) were found on the dependent variable, indicating that the changing world manipulation induced support for concessions, regardless of participants' political stance, age, and gender.

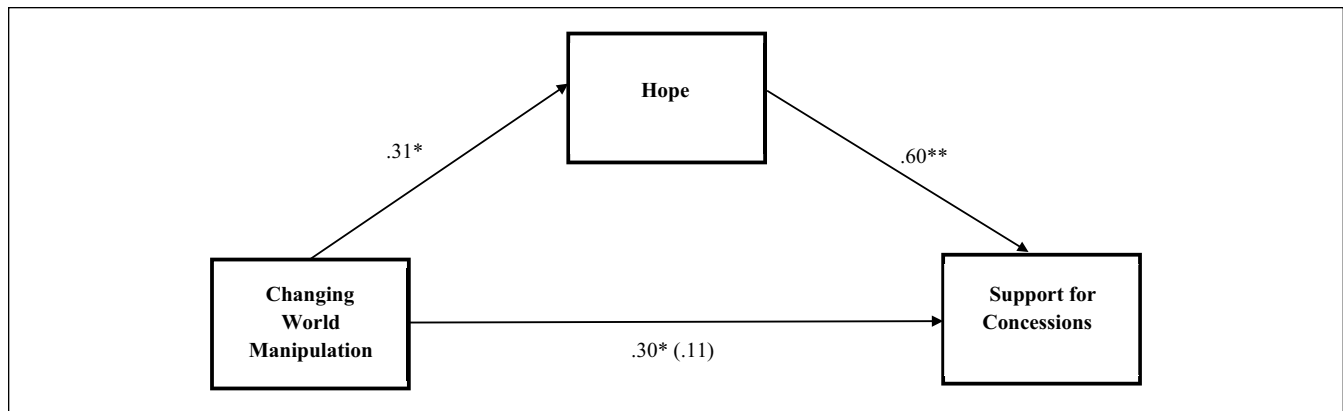
**Mediational analysis.** A mediation model was examined using Hayes (2013) bootstrapping Process for SPSS (Model 4), to determine whether the general changing world manipulation led participants to experience increased levels of hope for peace, and thus to higher support for concessions in the Israeli–Palestinian conflict. Results revealed that the effect of the manipulation on support for concessions ( $b = .81$ ,  $SE = .35$ ,  $t = 2.27$ ,  $p = .03$ ) was reduced after hope was included in the model ( $b = .31$ ,  $SE = .30$ ,  $t = 1.02$ ,  $p = .31$ ) and that the indirect effect through hope was significant ( $a*b$ : .499; 95%  $CI = [0.120, 0.953]$ ). Thus, hope mediated the effect of the changing world manipulation on support for concessions (Figure 4). When controlling for political orientation, age and gender, a similar trend was found, in which hope reduced the manipulation effect on concession-making.

Mediational analysis indicated that this simple manipulation, discussing the world in general, induced concessions through an increased experience of hope for peace in the Israeli–Palestinian conflict. In addition, this manipulation affected support for concessions regardless of participants' political stance, even though our sample included a large number of rightist participants. Nevertheless, we were concerned that the text itself was explicit, presenting participants with the message that the world is changing (vs. unchanging), as a scientific and undisputable truth. We wanted to create a more viable intervention that simply draws upon people's personal experiences as opposed to an *artificial* message. This was the aim of Study 4.

## Study 4: Intervention

In Study 3, the manipulation successfully induced a belief in a changing world by presenting participants with a concrete





**Figure 4.** Indirect effect of changing world manipulation on support for concessions through hope.

message of the world's dynamic nature. As our goal was to create an applicable template for an intervention, a task based on a mock research report, while indicating a mechanism, would be inappropriate as an intervention. Rather, it is important to promote a belief in a changing world in a way that is patently veridical in nature. We therefore developed a new approach that was rooted instead in the individual participating. To do this, we asked participants to visually depict their perception of a changing world in a drawing. Our reasoning was that, by asking people to draw their own depiction of the world as changing, this would not only afford the intervention a fundamental and basic sense of truth but also, by virtue of its self-generated nature, provide the strongest impact on broader perceptions.

## Method

**Participants and procedure.** Seventy (of which 4 were excluded for reasons stated below) participants (59% male; mean age 26.99,  $SD = 9.47$ ) were recruited on the Tel-Aviv Be'er-Sheva train ( $n = 52$ ), as well as on the Interdisciplinary Center, Herzliya campus ( $n = 18$ ). In terms of political orientation, 44% of participants indicated they were Rightist/Hawkish, 39% stated they were centrists and 18% stated they were Leftist/Dovish, a distribution which reflects Israeli society to some extent.

**Procedure.** The procedure was identical to the one described in Study 3.

**Changing versus unchanging world intervention.** For both experimental conditions, the first part was presented as a study regarding associations conveyed through drawing concepts. Participants were presented with two sentences and asked to depict their first associations in a drawing ("Studies show that people have very different associations regarding the same concepts . . . We ask that you depict the following sentences in a drawing . . . Take a moment to think about the

meaning of this idea to you, and then draw it inside the box."). Participants in the Changing World condition ( $n = 31$ ) were asked to depict the sense that "Our world is dynamic and changing" and "Situations change over time," while those in the Unchanging World condition ( $n = 35$ ) were asked to depict in their drawings the sense that "Our world is stable and unchanging" and "Situations do not change over time." The second part was then presented later in the session as a separate survey meant to examine Israelis' opinions and attitudes on relevant political issues. This section included our mediating and dependent variables, described below.

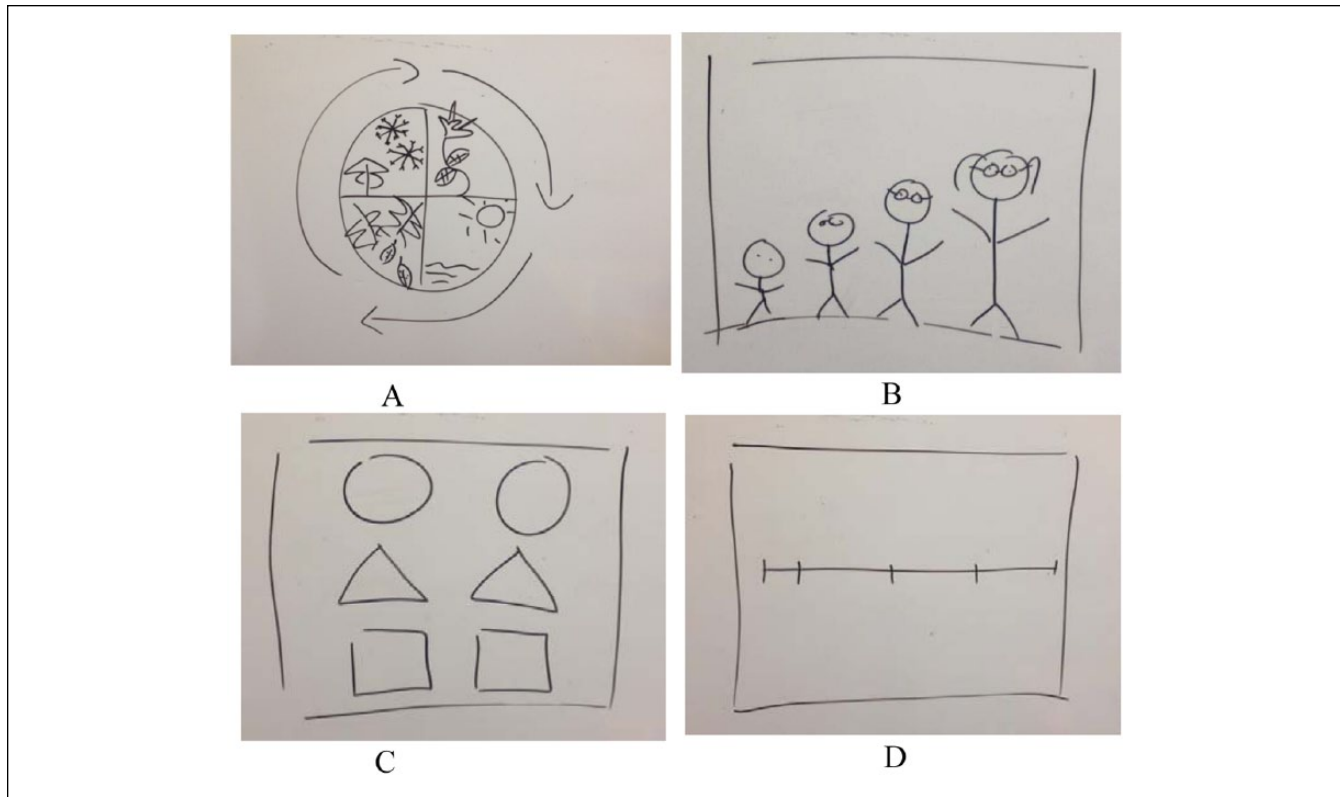
**Measures.** To assess participants' experience of *hope* regarding peace, we used the same five-item scale used in the previous studies ( $\alpha = .76$ ). As in all previous studies, concessions ( $\alpha = .68$ ) referred to two core issues of the conflict: borders and territory swaps, and the issue of Jerusalem. As in the previous study, we measured *age*, *gender*, and self-reported *political orientation*.

## Results and Discussion

In total, we excluded four participants, who were recoded as missing values. Two failed to read the questions thoroughly, and two had out-of-range values.

**Manipulation effects.** To establish the effect of our graphic manipulation, we asked two external coders, who were blind to the conditions, to rate each drawing from 1 (*completely static*) to 6 (*completely dynamic*). Drawings in the Changing World condition included themes such as fluctuating graphs, the world revolving, and seasons changing (see reproduced Illustrations A and B in Figure 5). Drawings in the Unchanging World condition included themes such as stable timelines and graphs, and shapes remaining constant (see reproduced Illustrations C and D in Figure 5).

We then computed internal reliability between the two coders ( $\alpha > .72$ ), and computed a scale out of the two



**Figure 5.** Reproduced illustrations of association-based drawings for the Changing World and Unchanging World conditions.

Note. To establish the effect of our graphic manipulation, we asked two external coders, who were blind to the conditions, to rate each drawing from 1 (completely static) to 6 (completely dynamic). Sentences (indicating the dynamic or static condition) which participants were asked to depict were erased. The drawings were then shown to the coders, who indicated to what extent each drawing is dynamic. We then computed internal reliability between the two coders ( $\alpha > .72$ ), and computed a scale out of the two averaged items ( $\alpha = .80$ ). Results showed that participants in the dynamic condition depicted the world as changing ( $M = 3.70$ ,  $SD = 1.62$ ) compared with those in the unchanging condition ( $M = 2.55$ ,  $SD = 1.30$ ) at  $t(63) = -3.17$ ,  $p = .002$ ,  $CI = [-1.87, -0.42]$ ;  $d = .78$ . Thus, we established that our intervention indeed led people to depict the world as dynamic.

averaged items ( $\alpha = .80$ ). Results showed that participants in the dynamic condition depicted the world as changing ( $M = 3.70$ ,  $SD = 1.62$ ) compared with those in the unchanging condition ( $M = 2.55$ ,  $SD = 1.30$ ) at  $t(63) = -3.17$ ,  $p = .002$ ,  $CI = [-1.87, -0.42]$ ;  $d = .78$ . Thus, we established that our intervention indeed led people to depict the world as dynamic.

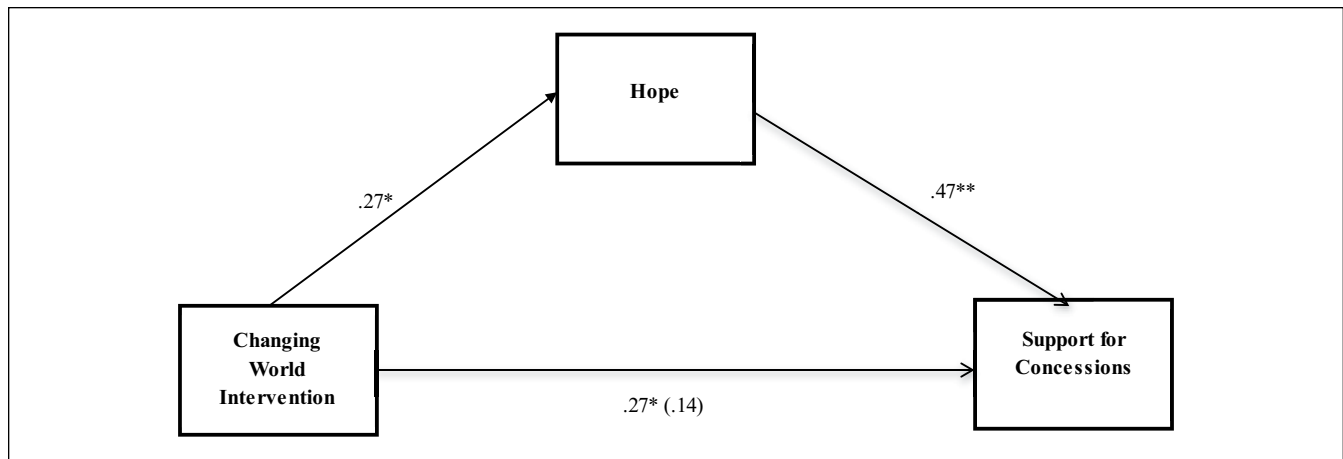
The task referred to the participants' perception of the world in general as changing or unchanging, and did not imply the direction of the change: positive or negative. Nonetheless, an independent  $t$  test revealed that it led participants in the Changing World condition to express significantly higher levels of hope ( $M = 4.41$ ,  $SD = .89$ ) compared with those in the Unchanging World condition ( $M = 3.89$ ,  $SD = 1.01$ ) at  $t(64) = -2.21$ ,  $p = .03$ ,  $CI = [-0.99, -0.05]$ ;  $d = .55$ . In addition, participants in the Changing World condition were more supportive of concession-making ( $M = 3.66$ ,  $SD = 1.34$ ) compared with the Unchanging World condition ( $M = 2.89$ ,  $SD = 1.50$ ;  $t(64) = -2.20$ ,  $p = .03$ ,  $CI = [-1.48, -0.07]$ ;  $d = .54$ ).

**Interaction effects.** Once again, no interaction effects of the intervention and political orientation ( $\beta = .08$ ,  $p = .83$ ),

gender ( $\beta = -.02$ ,  $p = .98$ ), and age ( $\beta = .05$ ,  $p = .18$ ) were found on support for concessions.

**Mediational analysis.** In light of these findings and previous studies, we examined whether the changing world intervention affected support for concessions through hope for peace (Figure 6). A mediation model was examined using Hayes (2013) bootstrapping Process for SPSS (Model 4). The analysis revealed that the direct effect of the task on support for concessions ( $b = .78$ ,  $SE = .35$ ,  $t = 2.20$ ,  $p = .03$ ) was reduced after hope was included in the model ( $b = .41$ ,  $SE = .33$ ,  $t = 1.27$ ,  $p = .21$ ) and that the indirect effect through hope was significant ( $a*b: .362$ ; 95%  $CI = [0.075, 0.797]$ ). When controlling for political orientation, age, and gender, a similar trend was found, in which hope reduced the intervention's effect on concession-making.

In this study, we successfully induced hope for peace using a simple and general intervention task in which the world as changing was depicted. Here, not only was no mention made of the conflict but also no concrete message was presented to participants as reliable. However, we wanted to



**Figure 6.** Indirect effect of changing world intervention on support for concessions through hope.

examine whether the perception of a changing world would induce hope and support for concessions compared with a control condition. This was the aim of Study 5.

### Study 5: Inducing Hope Compared With Baseline

In previous studies, we demonstrated the effectiveness of instilling a perception of the world as changing in promoting hope and conciliatory attitudes. This dynamic perception was compared with the opposite perception: that the world is unchanging and static. As such, in this study, we aimed to induce hope compared with a control condition that was unrelated to the concept of a changing world. This was to demonstrate that the perception of a changing world induces hope in intractable conflict, rather than the perception of an unchanging world depressing hope. To this end, we conducted an experimental study at a time of conflict escalation, using the changing world manipulation from Study 3 and comparing it with a control condition unrelated to a changing world. We expected to find that even in times of escalating conflict, participants in the Changing World condition would be more willing to make concessions toward peace, relative to participants in the control condition, mediated by increased levels of hope for peace.

#### Method

**Participants and procedure.** Eighty-eight participants (50% male; mean age = 40.45,  $SD = 14.17$ ) were recruited using an online survey platform. In terms of political orientation, our sample leaned to the right, making the challenge of inducing hope and concession-making more difficult. In all, 45.5% of participants indicated they were Rightist/Hawkish, 45.5% stated they were centrists, and 9% stated they were Leftist/Dovish.

**Procedure.** The procedure was similar to Study 3, but participants were sent an online link to the questionnaire and were

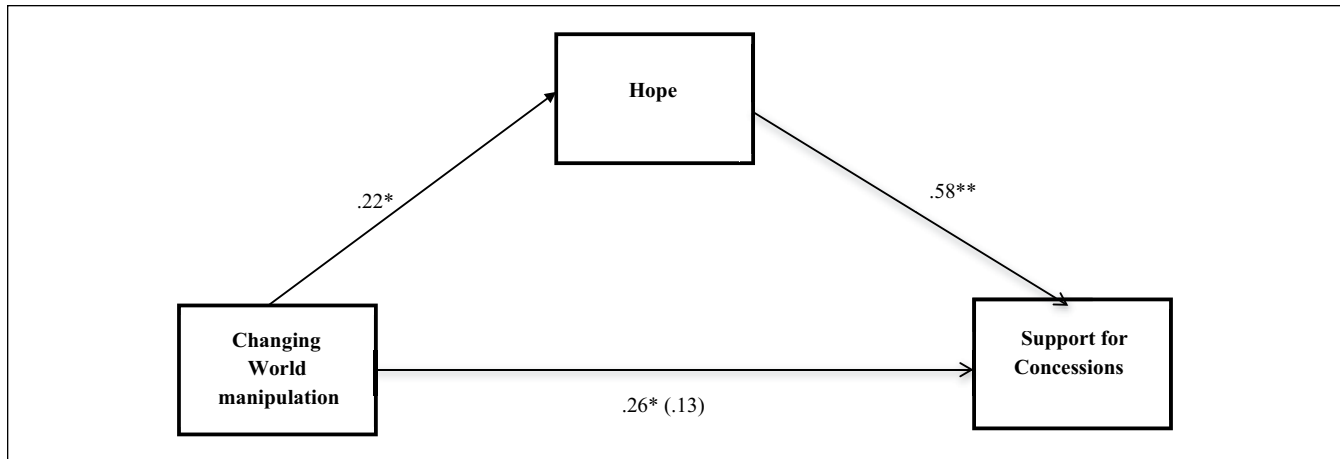
paid approximately US\$1 in return. While those in the changing world condition read the same article as in Study 3, participants in the control group read an article discussing the importance of the shape and color of generic drugs to continued usage. After reading the article, participants were presented with a seemingly unrelated study that included the mediating and dependent variables.

**Measures.** We used the same measures for *hope* ( $\alpha = .84$ ) and *support for concessions* ( $\alpha = .86$ ) as the previous study and measured *age*, *gender*, and self-reported *political orientation*.

#### Results and Discussion

**Manipulation effects.** In total, we removed seven participants from the analysis. Two participants had out-of-range values. In addition, because the study was conducted online from home, we wanted to ensure that participants took the study seriously. Three participants failed to follow instructions (one spent less than 1 min completing the study while another spent more than 40 min; one participant was suspected of not reading the questions properly and answered similar questions oppositely). Finally, 2 participants guessed the study's goal.

Consistent with our hypothesis, although the manipulation presented the world in general as changing, and even in a time of conflict escalation, it transformed into an experience of hope that was significantly higher ( $M = 3.64$ ,  $SD = 1.11$ ) compared with those in the control condition ( $M = 3.12$ ,  $SD = 1.21$ ),  $t(79) = -2.00$ ,  $p = .049$ ,  $CI = [-0.003, -1.03]$ ;  $d = .44$ ). A similar effect was found regarding participants' support for concessions,  $t(79) = 2.37$ ,  $p = .02$ ,  $CI = [-0.12, -1.36]$ ;  $d = .52$ . This relatively simple, very general manipulation referring to the world led those who read a dynamic message to be significantly more supportive of Israel making concessions ( $M = 3.19$ ,  $SD = 1.39$ ) compared with the control condition ( $M = 2.45$ ,  $SD = 1.45$ ).



**Figure 7.** Indirect effect of changing world manipulation (vs. control) on support for concessions through hope.

**Interaction effects.** Once again, no interaction effects of the manipulation and political orientation ( $\beta = -.01, p = .97$ ), gender ( $\beta = -.75, p = .23$ ), and age ( $\beta = -.008, p = .73$ ) were found on the dependent variable.

**Mediational analysis.** A mediation model was examined using Hayes (2013) bootstrapping Process for SPSS (Model 4), to determine whether the changing world manipulation led to higher support for concessions in the Israeli–Palestinian conflict through the heightened experience of hope for peace (Figure 7). Results revealed that the effect of the changing world manipulation on concessions ( $b = .74, SE = .31, t = 2.36, p = .02$ ) was reduced after hope was included in the model ( $b = .37, SE = .26, t = 1.43, p = .16$ ) and that the indirect effect through hope was significant ( $a*b: .368; 95\% CI = [0.039, 0.758]$ ).

These findings demonstrate that hope mediated the effect of the changing world manipulation on support for concessions compared with the unrelated control condition. When controlling for political orientation, age, and gender, a similar trend was found, in which hope reduced the manipulation's effect on concession-making. Although effects were slightly weaker than those found in the previous studies, when considering that this was compared with an unrelated control condition (and not an unchanging world message), and that it was administered during a time of escalation, we believe it has important implications.

## General Discussion

One of the greatest barriers to resolving intractable conflicts, one which leads to apathy and indifference, is the perception that the conflict is inherently unresolvable (Bar-Tal, 2007; Kriesberg, 1993). This belief stems from the perception of the conflict as unchanging, and results in its perpetuation and continuation. Transforming the perception of the future from identical to the negative present to different (and potentially better)

could potentially induce hope regarding peace. However, how can people hope for a better future if they perceive the world in general as inherently stable? Our five studies addressed these issues in the context of the Israeli–Palestinian conflict, a particularly prominent example of a protracted, ongoing conflict.

Results from the first, observational study showed that when watching people describe the future of the Israeli–Palestinian conflict, people perceived to hold a dynamic perception of the world were perceived as more hopeful and supportive of concession-making when coders were blind to the study's assumptions. In the second, correlational study we examined these associations when asking participants to report their own perceptions, emotions, and attitudes. Results indicated that participants who believe that the world is ever-changing were also more hopeful regarding peace in the Israeli–Palestinian conflict. This was associated with higher support for concessions regarding the negotiation process. Next, we wanted to establish our proposed model's causal direction. Therefore, in Study 3, we used a narrative manipulation, providing participants with seemingly reliable information instilling the perception of the world as changing (vs. unchanging). In Study 4, we developed an applicable intervention, using a self-generated depiction of a changing world to induce hope for peace. Finally, in Study 5, we replicated the effect of the changing world manipulation compared with a baseline during a time of conflict escalation. In all experimental studies, though no mention was made of the outgroup (Palestinians), the specific conflict (Israeli–Palestinian conflict), or even conflict situations in general, inducing a belief in a changing world led to greater support for concession-making, and this effect was mediated by hope for peace. Taken together, these five studies point to a mechanism underlying hope for peace, in which an increased perception of the world's ever-changing nature indirectly turned into hope for peace, leading to changes in political attitudes required to promote peace.

This research holds a number of important strengths. The first refers to the fact that these attitudinal changes were

achieved in such a difficult political context. We believe this is especially notable as such attitudes have traditionally been perceived as extremely immutable within intractable conflicts. Another strong point is the multi-methodological approach used to examine our hypotheses, including observational, correlational, and experimental designs. The importance of conducting studies whose findings can be generalized to the real world and allow for causal inferences has been noted in psychological literature (Baumeister et al., 2007; Funder, 2001). In this article, we included both approaches; while the observational design provided external validity, the correlational study enabled us to add a level of control by utilizing self-reported measures. The three experimental studies established causality, showing that it is the perception of the world as dynamic underlying hope and driving the process, adding internal validity, and developing an applicable intervention for ameliorating intergroup conflict.

Another of this research's strengths is the indirect way in which hope was induced. Previous, cognitive-based interventions to reduce prejudice have used direct reference to the outgroup as well as the conflict situation in an attempt to decrease anxiety and promote intergroup relations (e.g., Crisp & Turner, 2009; Gaertner & Dovidio, 2000; Hodson, Choma, & Costello, 2009). Direct reference to the outgroup has been found to be problematic within the context of intractable conflicts. In some cases it has proved unconvincing, while in others it triggered defensive reactions and attitudes (Bar-Tal & Rosen, 2009; Epley et al., 2006; Galinsky et al., 2005; Vorauer & Sasaki, 2009). We therefore focused our efforts on developing an indirect and general intervention, in which the core appraisal of hope would be transformed while bypassing any inverse reactions and emotions direct reference would induce.

### *Theoretical and Applied Significance*

The efficacy of transforming emotions by changing general mind-sets has been established in a large number of contexts in the form of implicit theories (Dweck et al., 1995; Halperin et al., 2012; Halperin et al., 2011). However, while implicit theories denote specific "targets" (such as individuals, groups, or conflicts), the concept of a changing world relates to reality as an overarching aggregation of situations that are ever-changing in their very nature. Second, while implicit theories typically concern beliefs about the held *potential* for change, belief in a changing world is a realistic message, referring to change as constant. Third, since implicit theories are often directed at specific, very negative targets (like violent groups or conflicts), referring to change may in fact imply improvement. Belief in a changing world, on the other hand, is a neutral perception of the world as ever-changing, without inferring the direction of this change.

Support for our Changing World Hypothesis also has particular implications regarding the role of emotions in

intractable intergroup conflicts. Although many studies have established the significance of emotions in conflict (e.g., Bar-Tal, Halperin, & de-Rivera, 2007; Halperin, 2014; Kelman, 1997; Mackie, Devos, & Smith, 2000; Petersen, 2002; Staub, 2005; Wohl, Branscombe, & Klar, 2006) and its resolution (e.g., Halperin et al., 2012; Halperin et al., 2011; Reifen-Tagar, Halperin, & Federico, 2011), most have focused on negative emotions. Joining emerging work on emotions in conflict and conflict resolution, this research concentrates on hope, an emotion that has thus far received less attention (Cohen-Chen et al., 2014; Saguy & Halperin, 2014). In addition, although hope has conceptually been established as pivotal to achieve peace (Bar-Tal, 2001), the majority of empirical evidence has been descriptive and correlational. Much work is needed to fully understand the role of hope in conflict resolution, and ways to induce hope to promote peaceful attitudes. Importantly, these results uncover a new mechanism, grounded in theory and empirically demonstrated, whereby hope regarding the end of a specific conflict can be induced by prompting a perception of the world as changing, leading to change in political attitudes for peace.

This research holds implications within the field of social cognition and intergroup relations as well. An ample amount of research has established the idea that under certain circumstances, interventions transforming cognitive perceptions may prove highly effective in improving intergroup relations (Crisp et al., 2011; Hewstone, 1996). These include established interventions such as imagined contact (Crisp & Turner, 2009, 2012), perspective taking (Dovidio et al., 2004; Galinsky, 2002; Galinsky & Moskowitz, 2000), and interventions based on the common ingroup identity model (Crisp & Hewstone, 2007; Dovidio et al., 2004; Dovidio et al., 2009; Gaertner & Dovidio, 2000). Although such interventions have proved highly successful, they were developed to improve intergroup relations, and thus target attitudes regarding specific people or groups. As a result, they apply to emotions, attitudes and behaviors whose "target" is the outgroup. The target upon which hope is focused, however, is a conflict perceived as irresolvable (Bar-Tal, 2007; Kriesberg, 1993). Therefore, within the context of intractable conflict, the perception of irresolvability should receive more attention and be reflected in an intervention aimed at inducing hope. Herein lies another unique contribution of this study: In changing a general perception of the world as dynamic, hope for peace is not only enabled but also induced, changing despair into hope and support for peace-promoting policies.

In addition to their theoretical implications, our findings have applied relevance. Successful use of this simple changing world intervention may serve as a basis for a large range of educational programs and interventions to regulate and induce hope within conflict situations. Importantly, frequent application of a message to various contexts has been found to prolong the effect's endurance over time (Yeager & Walton, 2011). Expanding and culturally adjusting these

simple yet scientifically grounded manipulations can serve as a basis for interventions that are applicable in various conflicts worldwide.

### Limitations and Future Directions

Within the context of conflict, emotional reactions do not occur in a vacuum. When forming an appraisal and associated reaction to an event, and especially one related to conflict, people also consider the reaction of the opponent (Carnevale & Isen, 1986; Van Kleef, De Dreu, & Manstead, 2004). Thus, future studies should also examine the effect that expressions of hope (rather than the experience of hope) toward the rival has on conflict resolution.

By design, our studies focused on a particularly extreme type of intergroup conflict, namely, an intractable conflict. Because the current situation is so negative, it is possible that convincing people that change constantly occurs is, at its core, a positive message. It is therefore important to examine the effect of inducing a belief in a changing world within other contexts, including different (and maybe less extreme) forms of intergroup conflict. It is possible that when people perceive the present as positive or at least acceptable, the perception of the world as changing may induce uncertainty regarding the future, which may lead to actions aimed at maintaining the status quo.

In summary, this research illuminates a new mechanism for promoting peace through hope. We successfully increased hope for peace in a specific conflict by indirectly transforming its core appraisal regarding irresolvability. The current research demonstrates that belief in a changing world can serve to increase the experience of hope for peace, with implications for the understanding of intergroup conflicts and their resolution, using emotions and their behavioral implications. These promising results challenge the traditional assumption that transforming attitudes within such severe contexts is extremely difficult, if not impossible. As such, this research contributes a novel dimension to the literatures on emotions, intergroup conflict, and conflict resolution. On a more applied level, these studies indicate a relatively simple and indirect strategy to induce hope, which is highly relevant to those who perceive promoting peace as a worthy endeavor.

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### Notes

1. The Israeli–Palestinian International organization works on a number of levels including (a) individually tailored projects based on each side (Israeli and Palestinian) for raising awareness and mobilization to end the conflict among both societies, (b) joint projects for Israelis and Palestinians for discussion and reconciliation, and (c) political activity to promote conflict resolution.
2. Coders were allowed to watch each video as many times as they wished but were required to fill in the questionnaire prior to moving on to the next video and directly after watching the video. After completing the entire study, coders' access to the videos was removed, and the videos were taken offline to ensure interviewees' privacy.
3. When adding the direct path from belief in a changing world to concessions, this path itself was non-significant ( $p = .84$ ). To eliminate the possibility that it is hope which leads to a belief in a changing world, we also compared the aforementioned mediation model to an alternative model in which hope was the independent variable, leading indirectly to concession-making through belief in a changing world. This model did not fit the data well,  $\chi^2 = 3.79$ ,  $p = .05$ , comparative fit index (CFI) = .862, and root mean square error approximation (RMSEA) = .383, suggesting that it is indeed belief in a changing world which drives the process, rather than other possible explanations.
4. When adding the direct path from belief in a changing world to concessions, this path was non-significant ( $p = .26$ ). As in Study 1, to eliminate the possibility that it is hope for peace which leads to a belief in a changing world, we also compared the aforementioned mediation model to an alternative model in which hope was the independent variable, leading indirectly to concession-making through belief in a changing world. This model did not fit the data well,  $\chi^2 = 62.75$ ,  $p = .000$ , CFI = .472, and RMSEA = .508, indicating that our model was indeed the most consistent compared with other possible explanations.

### Supplemental Material

The online supplemental material is available at <http://pspb.sagepub.com/supplemental>.

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