Paradoxical Thinking Interventions: A Paradigm for Societal Change

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Social problems such as intergroup conflicts, prejudice, and discrimination have a significant effect on the world's population. Often, to facilitate constructive solutions to these problems, fundamental attitude change is needed. However, changing the beliefs and attitudes to which people strongly adhere has proven to be difficult, as these individuals resist change. In this article, we offer a new and unconventional approach, termed paradoxical thinking, to promote the change of attitudes relevant to social realities. Paradoxical thinking refers to a process of exposing individuals to amplified, exaggerated, or even absurd messages that are still congruent with their held societal beliefs. In our research program, we focused on the Israeli–Palestinian conflict and found that paradoxical thinking interventions led to attitude moderation among those who were the most adamant in their held attitudes and beliefs, even in the challenging context of a harsh and prolonged intergroup conflict. We then discuss how paradoxical thinking can be utilized to facilitate attitude change in this context and provide two brief examples as preliminary evidence that this approach might work in other important societal contexts, (i.e., attitudes toward refugees and asylum seekers, and gender-based discrimination), and conclude with policy recommendations.

The world is plagued by social problems that often have destructive effects on the lives of individuals, collectives, and the international community more broadly.

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As a salient example of such fundamental social concerns, violent conflicts have taken an unbearable toll of more than two million lives in the past 30 years (Allansson, Melander, & Themnér, 2017), and millions more have become, or are at risk of becoming, refugees (UNHCR, 2017). Such social problems involve complicated challenges that demand comprehensive solutions, often including (among other things) change in the attitudes of leaders and powerful sections of society in order to generate support for solutions to these problems.

In some cases, a solution to social problems can focus on changing behavior (e.g., nudge intervention; Thaler & Sunstein, 2008). However, solutions to social problems might also result from a process of attitude change, based on a fundamental assumption in social psychology that attitude change eventually leads to behavioral change (see Ajzen & Fishbein, 1980; Brewer & Kramer, 1985; Eagly & Chaiken, 1993; Kraus, 1995). The present article focuses on the latter processes. For example, in order to promote a peaceful end to violent intergroup conflicts, one major belief that should be instilled among the leaders and members of the societies involved is that the enemy can be trusted and may function as a partner in peace negotiations (e.g., Alon & Bar-Tal, 2017; Nadler & Liviatan, 2006).

This particular challenge of attitude change falls within the area of expertise of social scientists and more specifically, social psychologists. Thus, it is not surprising that social psychologists have devoted tremendous efforts and carried out numerous studies in order to develop methods, paradigms, and theories that use attitude change to solve social problems in various domains. These domains range from improving academic achievements of minority group students (e.g., Yeager & Walton, 2011) to peacefully resolving intergroup conflict (e.g., Ditlmann, Samii, & Zeitzoff, 2017; Hameiri, Bar-Tal, & Halperin, 2014a); from recognizing human responsibility for climate change (e.g., Hornsey & Fielding, 2017) to the adoption of healthy and financially adaptive behavior (Arno & Thomas, 2016; Thaler & Sunstein, 2008). As we elaborate below, in some cases, such as when an issue at stake is contentious, or when it is held with moral conviction, attitude change is difficult to achieve, as people tend to resist change (e.g., Eagly & Chaiken, 1993; Jost, Federico, & Napier, 2009; Sherif & Hovland, 1961; Skitka, 2010). In other cases, such as when attempting to change habitual behaviors, perhaps a wise nudging intervention (Arno & Thomas, 2016; Thaler & Sunstein, 2008), or government legislation can achieve the desired change.

Through the years, various models of attitude change have been proposed. The majority of them are based on the premise that in order to lead to change, contradictory messages should be used to induce inconsistency between the content of the new message, and the content of held attitudes and beliefs. However, shortcomings have been observed when using this approach, mainly because individuals tend to adhere to their beliefs and attitudes on a given issue, especially when these attitudes are central; when they are viewed as truthful, ego-relevant, pertinent to daily life; and when they are held with high confidence (e.g., Eagly & Chaiken,

1993; Kruglanski, 2004). In general, this is particularly true in cases where the beliefs and attitudes have moral (e.g., Haidt, 2001; Skitka, 2010), ideological (e.g., Jost et al., 2009; Tetlock, 1989), or identity-related (Eagly & Chaiken, 1993) foundations. In these cases, human beings tend to resist changing their beliefs and attitudes, using different defense mechanisms, such as rejecting the persuasive attempt, counterarguing, avoiding exposure to inconsistent information altogether, encasing themselves in like-minded social groups, and others (see an example in Halperin, Bar-Tal, Sharvit, Rosler, & Raviv, 2010). These practices of rejection are sometimes used even when the contradictory information is valid, backed by evidence and sheds new light on the given social problem. We argue that this holds true even when the message is only implicitly inconsistent, or when the entire communication is implicit, such as with the use of nudging techniques (Hameiri et al., 2014a; see also Thaler & Sunstein, 2008).

This article proposes a new and alternative approach to these interventions based on the principles of paradoxical thinking (Hameiri, Nabet, Bar-Tal, & Halperin, 2018; Hameiri, Porat, Bar-Tal, Bieler, & Halperin, 2014b; Hameiri, Porat, Bar-Tal, & Halperin, 2016; Swann, Pelham, & Chidester, 1988). In our research, conducted in the context of an intractable conflict, the conventional approaches to attitude change were found to be less effective, especially with individuals who are more adamant in their opposition to peaceful conflict resolution. We examined whether an unconventional approach might be more useful in these cases (Hameiri et al., 2014b, 2016, 2018). Paradoxical thinking interventions do not directly contradict the positions of these individuals as the conventional approaches do. Rather, paradoxical thinking is a method of changing held societal beliefs and attitudes by providing a message(s) consistent with the message recipient's held beliefs and attitudes, but in an amplified, exaggerated, or even absurd manner. The paradoxical thinking message is intended to lead an individual to perceive his/her currently held societal beliefs and attitudes as irrational and perhaps even senseless (Hameiri et al., 2014b, 2016, 2018; see also Swann et al., 1988). To a large extent, paradoxical thinking resembles the classic debating technique, *reductio ad absurdum* (Rescher, 2005) and is based on practical knowledge accumulated in clinical psychological treatments (e.g., Frankl, 1975; Miller & Rollnick, 2002; Watzlawick, Weakland, & Fisch, 1974).

Hence, in this article, we will first elaborate on the challenges posed when attempting to achieve attitude change on important social issues, focusing on promoting peaceful conflict resolution in contexts of intractable conflicts. Then, we will describe the paradoxical thinking conceptual framework: We will present its conceptual foundations, its guiding principles, its underlying mechanisms, and its ramifications. We will follow by describing the empirical work we have carried out in our lab and in the field, in which we designed and implemented different kinds of paradoxical thinking interventions to change conflict-supporting beliefs. Our research on the effects of the paradoxical thinking interventions was carried

out in Israel, among Israeli Jews, in the context of the Israeli–Palestinian conflict (Hameiri et al., 2014b, 2016, 2018). We will then provide some initial evidence demonstrating how paradoxical thinking interventions were applied in two other contexts of social problems: attitudes toward refugees and asylum seekers, and gender-based discrimination. We will conclude by providing evidence-based policy recommendations and by outlining a research agenda for paradoxical thinking research—an agenda that is firmly focused on solving real-life problems.

Barriers to Attitude Change

Proponents of social change have provided various accounts of the deep freezing of beliefs and attitudes, and possible motives for rejecting even compelling and credible counterattitudinal messages and resisting change of the held repertoire. Indeed, at the cognitive level, once individuals form an attitude regarding a given issue, they may "freeze on their prior knowledge if such knowledge was congruent with their needs" (Kruglanski, 2004, pp. 17–18). These needs may range from coping with harsh environments, as in the case of intergroup conflicts (e.g., Bar-Tal & Halperin, 2011), to maintaining a positive self-image and a sense of consistency following a behavior or decision (e.g., Kunda, 1990). The seminal work of Ziva Kunda on motivated reasoning has shown that individuals not only freeze their attitudes, but in many cases, they actively engage in a biased and selective search for information, embracing information that reinforces their own attitudes, while ignoring or rejecting counterinformation. This means that, however compelling the counterinformation is, in many cases, it may fall on deaf ears. In recent years, there have been a few attempts to highlight strong barriers to societal attitude change, even when people face solid information that counters their beliefs (Bar-Tal & Halperin, 2011; Hornsey & Fielding, 2017). The aim of the following review is to highlight the powerful forces, or barriers, that interventionists face when attempting to promote belief and attitude change, and to provide the basis for understanding why conventional approaches to attitude change might not promote the desired change.

Our research on paradoxical thinking was conducted in the context of the Israeli–Palestinian conflict, a harsh and prolonged intergroup conflict that is considered intractable (e.g., Bar-Tal, 2013). The context of intractable conflicts provides an interesting example in which people adhere to their initial beliefs even in the face of new information. Powerful psychological barriers prevent changing conflict supporting beliefs and attitudes by closing people's minds when new opportunities to promote peace appear (e.g., Bar-Tal & Halperin, 2011; Ross & Ward, 1995). In this context, when societies are involved in bloody and lasting conflicts (for example, in Turkey, Sri Lanka, Cyprus, or Israel), extremely difficult and challenging life conditions pose dramatic psychological challenges to citizens (Bar-Tal, 2013). In order to survive and meet the challenges that the conflict

poses, societies develop a set of societal beliefs, attitudes, values, motivations, norms, and practices that fulfill basic human individual and collective needs. For example, they provide a meaningful picture of the conflict situation, justify the violent behavior of society members, facilitate mobilization for participation in the conflict, and enable maintenance of a positive social identity and self-collective image (Bar-Tal, 2007a, 2013).

At both individual and collective levels, the elements of the sociopsychological repertoire gradually crystallize into a sociopsychological infrastructure that includes interrelations of collective memories (e.g., Bar-Tal, 2013; Devine-Wright, 2003; Papadakis, Perstianis, & Welz, 2006; Tint, 2010), ethos of conflict (e.g., Bar-Tal, Sharvit, Halperin, & Zafran, 2012), and collective emotional orientation (e.g., Bar-Tal, 2013; Halperin, 2016), which provide major collective narratives (e.g., Bruner, 1990), motivators, emotions, and goals. Societal beliefs in these collective narratives, along with the shared emotions, supply a simplistic and one-sided picture that serves as a prism for viewing the conflict reality. Eventually, this infrastructure becomes well imparted, disseminated, and institutionalized, serving as a foundation for the development of a culture of conflict that dominates societies engaged in intractable conflicts (Bar-Tal, 2013). Importantly, we do not argue that the developed infrastructure in this context serves as a precondition for contexts in which paradoxical thinking interventions are applicable, but rather as a case that is generally resistant to attitude change, because the held beliefs and attitudes are deeply entrenched.

In times of conflict climax, when there is no light at the end of the tunnel and cycles of violence dominate the conflictive relations, this repertoire is adaptive. It helps to meet the challenges posed by the conflict and satisfy deprived needs. However, when possible signs of peace appear, it becomes a barrier to peacemaking as it leads to a motivated process resulting in selective, biased and distorted processing of new information and ideas (Bar-Tal & Halperin, 2011). Leaders who do not wish to promote conflict resolution go to great lengths to ensure that society members adhere to this conflict-supporting repertoire. This is done by indoctrinating it from a very young age through socialization channels, as well as with other powerful societal mechanisms, such as the use of censorship of alternative information and propagating self-censorship and a culture of silence, control of the mass media, and more (e.g., Bar-Tal, Diamond, & Nasie, 2017; Bar-Tal, Oren, & Nets-Zehngut, 2014). In fact, society members (at least in some cases), to some extent, become enclosed in a bubble of conflict walls, without encountering and processing major alternative information that may shed new light on the situation, the rival, or their own society.

One important aspect that contributes to the freezing of attitudes and beliefs—an aspect that is highly relevant for the development of the paradoxical thinking framework—is social identity needs of individuals. While Bar-Tal and Halperin (2011) briefly mention such needs, this notion was further developed in a more

recent synthesis offered by Hornsey and Fielding (2017), in an attempt to understand the psychological underpinnings explaining some people's rejection of firm scientific evidence. In line with the social identity perspective (e.g., Tajfel & Turner, 1986), it is argued that being a part of a group is important to us as human beings, as we draw meaning and self-definition from such memberships. In many cases, being a member of a group involves descriptions and prescriptions of what would be considered normative for the group. In order to maintain a group's boundaries, group members may pressure other group members to conform to what is perceived to be normative in the group, to adhere to the rules and expectations of the social identity. Ultimately, the perception of the group norms can guide group members' behavior as was established in research conducted in various domains (Tankard & Paluck, 2016). For example, if the group norm is to be against making territorial compromises to promote a peaceful resolution to the Israeli–Palestinian conflict, as for example might be the case for self-defined rightists in Israel (e.g., Shamir & Arian, 1999), an individual will most likely endorse this position, and in many cases internalize it, and act accordingly (see also Bliuc et al., 2015).

These processes ensure that conflicts, which perhaps could have been solvable or might have deescalated significantly, become resistant to peaceful resolution (Bar-Tal & Halperin, 2011). Furthermore, under these conditions, when facing powerful barriers, the use of evidence-based counterinformation to persuade the individual is in many cases doomed to failure (Bliuc et al., 2015; Hornsey & Fielding, 2017). This is because individuals use various psychological defenses to resist these persuasive attempts (e.g., Kruglanski, 2004; Kunda, 1990). Thus, contradictory information, even with well-crafted and persuasive counterarguments, is often ignored or rejected (e.g., Hameiri et al., 2014a). As mentioned, this would be especially true when people were socialized to hold these views since they were born (e.g., Bar-Tal et al., 2017), when they hold their beliefs and attitudes as a central part of their identity, when they are viewed as the ultimate truth, when they are held with high confidence (e.g., Eagly & Chaiken, 1993; Kruglanski, 2004), and when they are intertwined with moral convictions (Skitka, 2010). In these cases, people will show even greater resistance, accompanied with a strong emotional reaction and intolerance to those who think differently from them.

For example, and as we will elaborate below, presenting Israeli Jews with a video campaign arguing that there is a partner for peace on the Palestinian side, which is contrary to what most Israeli Jews believe (Bar-Tal, Halperin, & Oren, 2010), did not persuade those who were more adamant in their positions (Hameiri et al., 2018). Resistance to this campaign may have stemmed both from the contradictory information used, and from the fact that it was propagated by an Israeli–Palestinian NGO that tries to promote a two-state solution to the conflict. As a result, most Israeli Jews, especially those who are more adamant in their hawkish positions, would consider themselves in conflict with this NGO (and thus

its message), because it would be considered as part of a different sociopolitical identity.

Paradoxical Thinking

Presentation of the Paradoxical Thinking Approach

Based on different clinical psychological theories (e.g., Frankl, 1975; Miller & Rollnick, 2002; Riebel, 1984; Watzlawick et al., 1974), as well as on the classic debating technique, *reductio ad absurdum* (Rescher, 2005), we define paradoxical thinking as a method of using a new nonjudgmental message(s) that is consistent with held attitudes and beliefs, i.e., falls within the message recipient's latitude of acceptance, but is provided in an amplified, exaggerated or even absurd manner. It is meant to elicit surprise, or a sense of absurdity regarding the held attitudes or the current situation, and will be especially effective among those who would normally be the most resistant. In a nutshell, this is because, while for moderate individuals the paradoxical thinking messages will, in some cases, fall outside the latitude of acceptance, for those who are more extreme, it will fall within this latitude, and therefore will be considered (Sherif & Hovland, 1961). Instead of eliciting inconsistency using counterattitudinal information, the paradoxical thinking message extrapolates from the held beliefs extreme and absurd conclusions that are meant to induce a cognitive process of examining these attitudes. If the process is successful, it leads to the realization that something is wrong, nonsensical, unacceptable, or strange in the held beliefs and thereby threatens the personal and/or social identity of the person. In this way, it may stimulate unfreezing of held beliefs as well as openness and readiness to change.

Most of the early evidence of the effectiveness of paradoxical thinking interventions comes from the clinical psychological literature. This work (e.g., Frankl, 1975; Miller & Rollnick, 2002; Watzlawick et al., 1974; for a review see Riebel, 1984) suggest that individuals who are provided with amplified or exaggerated information or instructions that are in line with their held beliefs, attitudes, or behavior may change these beliefs, even when they are extremely negative and well entrenched. Using a similar line of thought, Frankl (1975) advised his patients that, instead of avoiding the fear-arousing stimulus, to think about very fearful cases, or in his words, "to do, or wish to happen, the very things [they fear]" (Frankl, 1975, p. 227). Using this method, that is still used by clinical psychologists to this day (see, e.g., Schulenberg, Hutzell, Nassif, & Rogina, 2008), Frankl successfully treated difficult cases of obsessive-compulsive disorder and phobia (see also Frankl, 2004).

Paradoxical thinking messages can range from blatantly exaggerated reflections of held societal beliefs (e.g., Frankl, 1975; Swann et al., 1988) to more subtle exaggerations or amplifications of held beliefs by extrapolating absurd

conclusions from them (e.g., Miller & Rollnick, 2002; Rescher, 2005; Watzlawick et al., 1974). A prime example of the blatant approach was a manipulation used by Swann et al. (1988) attempting to change participants' conservative attitudes about women's roles. Participants were presented with leading questions that encouraged them to answer with statements that were consistent, but blatantly more extreme, or exaggerated, than their held attitudes (e.g., "Why do you sympathize with the feelings of some men that women are better kept barefoot and pregnant?"). Results indicated that this paradoxical strategy was the most effective in leading to moderation of the previously held conservative attitudes among those who held these attitudes with high certainty.

A technique termed amplified reflection, derived from the literature on motivational interviewing (MI), a counseling approach developed for treatment with problem drinkers, and other behavioral problems (e.g., Miller & Rollnick, 2002; Rollnick & Miller, 1995) serves as a good example of a subtler paradoxical thinking intervention. One of the basic tenets of MI is that, in order to persuade resistant or ambivalent patients, direct counterarguments are counterproductive, as individuals tend to reject, or resist them by denying them or rationalize their meaning. Therefore, use of psychological judo is suggested, i.e., overcoming resistance by altering or reframing the provided messages in order to overcome the resistance and create a new momentum toward a change of behavior (Miller & Rollnick, 2002). For example, if a client, who is a heavy smoker, argues that "studies about cancer don't prove anything," the therapist, or interviewer, can reply that "indeed, lung cancer has nothing to do with smoking - it just happens." This response is an amplified or exaggerated version of the patient's beliefs, which is achieved by extrapolating an absurd conclusion from the patient's own words. According to the MI approach this will circumvent possible resistance, and will help the patient question his or her original views. Indeed, similar to *reductio ad absurdum*, when using the technique of amplified reflection, the therapist, in essence, is instructed to reflect a subtle exaggeration or amplification, or an absurd conclusion that is extrapolated from the patient's own resistance, attitudes, and beliefs.

Let us examine each part of the paradoxical thinking interventions in detail. For each of the following aspects of paradoxical thinking, we will define a necessary condition, immediately followed by a relevant implication. First, paradoxical thinking uses nonjudgmental messages. This is a crucial condition in the paradoxical thinking conceptual framework, and has three potential implications: First, using nonjudgmental messages leaves the intention of the message source, or his/her stance on the issue, unclear, ambiguous, and thus reduces any social pressure that might be implied in the communication. It leads the message recipients to process the message more thoroughly and to come to a conclusion on their own (Arieli, Grant, & Sagiv, 2014; Perloff, 2010; Petty & Cacioppo, 1986). Moreover, a second implication is that in some cases, expressing extreme messages without judging them as extreme, or without expressing emotions that signal

them as extreme, may lead to an attempt to compensate for what is perceived as an inappropriate response to the extreme content, which may facilitate a process of attitude change (cf. Goldenberg, Saguy, & Halperin, 2014).

An additional important implication of the above condition is that paradoxical thinking messages leave the recipients to draw their own conclusion. The empirical literature recommends the use of implicit conclusions when facing knowledge-able and confident recipients of persuasive messages (Linder & Worchel, 1970; Perloff, 2010; Petty & Cacioppo, 1986; but see McGuire, 1969; O'Keefe, 2015). In addition, there are some indications that having the recipients come to the con-clusion on their own will have a more persuasive effect than giving it to them on a silver platter. Implicit conclusions often prevent arousal of defenses and imme-diate rejection of the message, and thus they are especially effective with hostile targeted recipients (Perloff, 2010). In terms of self-determination theory (Ryan & Deci, 2000), such messages that leave recipients to come to the conclusion on their own do not threaten the recipients' felt autonomy, and when they are processed deliberately and systematically they should increase recipients' intrin-sic motivation to draw conclusions themselves and act upon these conclusions. Moreover, paradoxical thinking messages, as an amplified or exaggerated version of the message recipients' own beliefs and attitudes, do not directly contradict them, but rather challenge their rationality. This follows the same logic that Frankl (1975) used, such that his patients did not formulate counterargumentation to the suggested counterintuitive treatment, but rather to their own positions, until finally they understood that their position was absurd.

A second condition is that the paradoxical thinking message is consistent with the held attitudes and beliefs, i.e., it falls within the message recipient's latitude of acceptance, but is provided in an amplified, exaggerated, or even absurd manner. Sherif and Hovland (1961), in their now classic work, postulated that the degree of attitude change should increase with message discrepancy, but only if the position of the message falls within a person's latitude of acceptance, one that s/he will at least tolerate and consider. Latitude of rejection refers to all the positions that are unacceptable to the person, and thus immediately rejected. Thus, in line with the thinking of Sherif, Sherif, and Nebergall (1965) that an individual's own position serves as an anchor, the paradoxical messages must fall within the recipient's latitude of acceptance in order to be considered because when they are too extreme, they fall outside this latitude and then are dismissed or rejected. Indeed, although they did not discuss this in their paper, as described above, Swann et al. (1988) found that participants in the paradoxical-strategy condition showed significantly lower levels of disagreement with the leading questions than those in the conventional-strategy condition, in which they were asked leading questions that encouraged them to make statements that were inconsistent with their held beliefs.

A major implication of the above condition is that paradoxical thinking is expected to be especially effective with those who are more extreme as, for them, the paradoxical thinking messages fall within their latitude of acceptance, while for the more moderate individuals, the messages fall beyond whatever they perceive as acceptable, and thus the messages are rejected. Indeed, there is growing evidence that using paradoxical thinking techniques can be particularly effective with resistant individuals with more extreme views. Evaluation of the MI clinical approach suggests that it can be particularly effective with very angry and defensive patients who show the greatest resistance to change (Allen et al., 1997). Furthermore, Frankl (1975) argues that his paradoxical technique led to changes in behavior with patients who were resistant to other therapeutic techniques. Swann et al. (1988) also found that their paradoxical strategy (as opposed to the conventional strategy) led to more moderation in participants' conservative attitudes among those who were extreme and certain in these attitudes, and consequently showed more general disagreement with the leading questions. Last, as we elaborate further below, in our own research (Hameiri et al., 2014b, 2016, 2018), we found that paradoxical thinking interventions were more effective with those who held more extreme noncompromising beliefs and attitudes regarding the conflict and the rival.

A third condition is that the paradoxical thinking messages' blatant extremity or subtle extrapolation of absurd conclusions from the recipient's own attitudes and beliefs is meant to elicit surprise or a sense of absurdity regarding the held attitudes or the current situation. Building on *reductio ad absurdum* (Rescher, 2005), as well as on the mostly practical knowledge accumulated in clinical psychological treatments (e.g., Farrelly & Brandsma, 1974; Frankl, 1975; Watzlawick et al., 1974), although these treatments differ from one another in several respects, many of them suggest that the driving force of the treatment is that the patient should be first of all surprised, and often then also disturbed, put off balance, or even shocked with messages presented by the clinical psychologist. This sense of surprise should lead to cognitive change when the old thinking is short-circuited and the pieces suddenly come together, allowing the patients to bypass or derail resistance and ask themselves new questions, or open themselves to new information, even when these attitudes are extremely negative and well-entrenched. Surprise is usually defined as failure to make sense of an event (Kahneman & Miller, 1986), or, more explicitly, when an observed event causes a coherent cognition or schema to break down, leading to an urgent process of sense-making in order to restore coherence (Itti & Baldi, 2009; Maguire, Maguire, & Keane, 2011). When a stimulus or a message is surprising, it instigates focused attention, forces individuals to evaluate it, induces an in-depth examination, even if the experience is negative, and eventually, the long processing may lead to the message acceptance (e.g., Meyer, Reisenzein, & Schützwohl, 1997; Petty, Fleming, Priester, & Feinstein, 2001; Ziegler, Diehl, & Ruther, 2002).

Furthermore, based on classic persuasion theories (Chaiken, Liberman, & Eagly, 1989; Kruglanski & Thompson, 1999; Petty & Cacioppo, 1986), one implication of the above condition is that it seems that individuals elaborate, or invest increased cognitive efforts, when processing the paradoxical thinking message because of its surprising effect that raises the need to make sense of the message and restore coherence. In their model of attempted resistance, Petty, Tormala, and Rucker (2004) suggest that if an individual is trying to counterargue against a persuasive appeal, but her attempts are unsuccessful, i.e., counterarguing seems difficult to her and the counterarguments she uses seem weak, this may produce less confidence in her initial beliefs and attitudes (see also Tormala, Clarkson, & Petty, 2006). Specifically, we suggest that since the paradoxical thinking messages are consistent with their content, they do not allow for the creation of good counterarguments, even after a great deal of invested effort, thus leading to a weakening of the held beliefs and attitudes.

Essentially, we argue that the paradoxical thinking messages aim to instigate an intraindividual cognitive process of questioning one's held beliefs and attitudes, rather than forcing message recipients to consider counterinformation as a persuasive message or an intervention. In other words, the message's goal is to arouse motivation to reevaluate long-held beliefs and attitudes, to search for new ideas and information, to consider this information and eventually to accept the new alternatives. In the present case, the provided message is meant to arouse surprise from either its blatant extremity or the absurd conclusions that are extrapolated from the recipient's beliefs and attitudes, which in turn is supposed to motivate individuals to examine and reevaluate their held beliefs and attitudes and raise self-created new counter ideas. This is based on an important premise of the paradoxical thinking paradigm, suggesting that the message, which is consistent (but amplified or exaggerated) with the held attitudes and beliefs does not elicit strong disagreement, and consequently, does not raise psychological defenses, but opens a way for unfreezing (cf. Kruglanski, 1989). In order for this to happen, and as we elaborate below, one crucial aspect of the paradoxical thinking approach is that it also challenges the most central aspects of the message recipient's identity (Hameiri et al., 2018).

In sum, we are presenting a new approach to attitude change that has promise to be effective, even in difficult cases when individuals hold extreme views and adhere to them with high confidence. As we outline next, our research shows unequivocally that this approach is effective in the very challenging case of intractable conflict and therefore holds great promise as a tool for practitioners and policy makers who may adapt it into intervention programs they lead.

Establishing Paradoxical Thinking Empirically

We began our journey to develop the paradoxical thinking paradigm in one of the most challenging situations—the context of intractable conflict. As described above, in this context, individuals very often adhere to positions that were acquired at early age, maintained continuously by the societal institutions, and reinforced through the years by personal and collective experiences. This is the case of Jews in Israel that are involved in an intractable conflict with the Palestinians for over 100 years. In this specific context, in which we carried out most of our research, beliefs and attitudes are not only learned through formal socialization in schools and in the army, but also through the events of the conflict and their interpretation by the leaders and media which provide additional support for them (see Bar-Tal, 2007b; Bar-Tal & Raviv, in press; Nasie, Diamond, & Bar-Tal, 2016; Oren, Nets-Zehngut, & Bar-Tal, 2015). Thus, it is not surprising that providing counter and illuminating information of the conflict situation often does not facilitate change of held beliefs and attitudes, as individuals use different kinds of defense mechanisms to uphold their views about the conflict (Halperin et al., 2010). For example, a review of studies carried out in Israel showed that educational interventions that presented counterinformation to the hegemonic narrative mostly elicited resistance to change (Kupermintz & Salomon, 2005).

Indeed, changing attitudes in this context is difficult, especially among hawkish individuals who tend to resist peace-promoting messages to even a greater extent (e.g., Hameiri et al., 2014a), Thus we reasoned that, especially in this context, using the paradoxical thinking approach would be most effective. At first, we examined whether this approach was indeed effective as a conflict resolution intervention, as it seemed to be when used as treatment by clinical psychologists.

We found that an intervention that was based on the paradoxical thinking principles was effective in an initial online field experiment in which we also found that its effects continued for more than 1 year. More specifically, in a study conducted by Hameiri et al. (2014b), Jewish Israeli participants were randomly assigned to one of two conditions: paradoxical thinking or control. Participants were exposed to materials in six waves with 3–4 days between each exposure. In the paradoxical thinking condition, they viewed a video campaign with messages related to the Israeli–Palestinian conflict. Specifically, they were asked to watch 5-minute videos containing three generic television commercials and three paradoxical thinking videos with different themes, in counterbalanced order. The paradoxical thinking campaign, termed "The Conflict," included YouTube video-clips expressing ideas that were consistent with the shared conflict-supporting societal beliefs, but in an amplified, or exaggerated manner, by extrapolating an absurd conclusion from them.

Specifically, these 30-second video-clips emphasized how Israeli Jews construe their identity on the basis of their conflict-related experiences. Each

video-clip presented one core Israeli Jewish identity theme—a conflict-supporting belief of the ethos of conflict shared by the majority of the Israeli Jewish population (e.g., beliefs in self-glorification, unity, or victimhood; e.g., Bar-Tal, 2013; Bar-Tal et al., 2012)—and ended by suggesting that Israelis cannot afford to end the Israeli–Palestinian conflict, as its continuation helps maintain these societal beliefs. For example, one video-clip dealt with the shared societal belief that the Israeli army is the most moral army in the world (e.g., Bar-Tal et al., 2012). The clip started with the message "Without it, we would never be moral." Then for approximately 20 seconds different pictures portraying Israeli soldiers helping Palestinians were presented, while an instrumental version of "What a Wonderful World," made famous by Louis Armstrong, was played. The video-clip ended with the message "In order to be moral, we probably need the conflict." Importantly, this, and all other video-clips did not refute the core conflict-supporting beliefs, but rather amplified them to extrapolate an absurd conclusion (i.e., that because of these beliefs, Israelis really need the conflict to continue). In the control condition, participants were exposed to a video-clip of similar length, containing six television commercials unrelated to the Israeli–Palestinian conflict.

The results of the intervention showed that immediately after the sixth and final exposure to the video-clips, the paradoxical thinking intervention, compared to the control, led participants to show more unfreezing of conflict-supporting beliefs. This was measured with items assessing the extent to which participants were motivated to reevaluate their positions pertaining to ethos of conflict themes (e.g., "To what extent did the video-clips make you doubt the saying: 'There is no partner on the Palestinian side'?"). The clips also led centrist and (marginally significantly) rightist participants to express more conciliatory attitudes toward the Palestinians, who were perceived as less responsible for the continuation of the conflict, a very central belief in the Israeli Jewish ethos. This, in turn, led to increased willingness to support the evacuation of Jewish settlements in the West Bank, which is a controversial issue that is currently at the core of the Israeli–Palestinian conflict. Importantly, the paradoxical thinking intervention effects were long-lasting, as participants in the experimental condition (vs. control) expressed more willingness to compromise on crucial issues, such as evacuation of settlements and the division of Jerusalem in order to promote a peaceful conflict resolution, when they were reassessed a year after the intervention. Finally, the intervention even influenced participants' actual voting patterns in the 2013 Israeli general elections. Participants who were exposed to the paradoxical intervention, which took place shortly before the general elections, reported that they tended to vote for more dovish parties which advocated a peaceful resolution to the conflict.

Following these promising results, in order to examine the paradoxical thinking intervention as a real-world intervention, we designed a multichanneled campaign based on the materials of "The Conflict" campaign (Hameiri et al., 2016). In this real-world application of the intervention, we disseminated the intervention

for 6 weeks in an entire (right-wing[1] and religious) city in the center of Israel with 25,000 residents, and assessed its effects in the midst of a rather dramatic wave of violence. We attempted to reach as many of the city residents, using an online campaign directed at the residents using IP addresses. We used online banners in some of the most visited websites in Israel, to which there were 4.4 million exposures, 95% of which came from the targeted city. We also showed "The Conflict" video-clips (a revised version of those used in Hameiri et al., 2014b) as ads on YouTube. These video-clips had almost one million views, 80% of which were from the targeted city. Furthermore, "The Conflict" billboard posters were placed in 20 different locations in the city for a week and a half. Finally, in 18 days of field work, several hundred of "The Conflict" t-shirts, balloons, and 4,000 brochures were handed out to passersby in the city center.

In order to assess the campaign's effectiveness, the study used a pre-post field experiment design, in which the paradoxical thinking condition was compared to a control condition in which participants were sampled from the area surrounding the targeted city. Participants in both conditions were not aware of any links between the questionnaires that they were requested to fill in, and the campaign that was being assessed. As the targeted city is mostly rightist and religious, we attempted to match the control group in terms of its sociopolitical characteristics, yielding a final sample that was skewed to the right and mostly religious.

Results showed that, while premanipulation levels were similar across the two conditions, the intervention led rightist participants to decrease their adherence to conflict-supporting beliefs (e.g., untrustworthiness of the Palestinians, Palestinians responsibility for the continuation of the conflict, and the morality of the Israeli army) over time, while the levels remained unchanged for participants in the control condition. The intervention did not affect the centrist and leftist participants. Furthermore, compared to the control condition, rightist participants in the paradoxical thinking condition expressed less support for aggressive policies (e.g., impose closure on Arab neighborhoods, forbid entrance to Temple Mount), and more support for conciliatory policies (e.g., freeze settlement construction, ease movement restrictions) that the Israeli government should adopt in response to the eruption of violence. These effects were found despite the fact that shortly after the initiation of the campaign, the Israeli–Palestinian conflict reescalated and violence erupted all over Israel and the West Bank.

Unexpectedly, we also found that centrist participants in the paradoxical thinking condition expressed less support for conciliatory policies compared with the participants in the control condition. However, it should be stressed that this

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[1] In Israel, the dimension of right–left almost exclusively reflects the positions toward the Israeli–Palestinian conflict. Rightists tend to hold an uncompromising position toward the resolution of this conflict and view Palestinians negatively and distrustfully, whereas leftist tend to favor compromises and view Palestinians as partners to the peacemaking process.

was the only analysis, in all of our studies and among all of our dependent variables, in which we found that the paradoxical thinking intervention had an adverse effect on the centrist and leftist participants. We argue that for these participants the messages fall outside of their latitude of acceptance, and hence are rejected and processed automatically. Thus, we reason that some may simply disregard the new information, whereas others will consider it in its literal sense. Additional research is needed to deepen our understanding regarding these effects and underlying processes of the paradoxical thinking messages.

The Mechanism Underlying the Paradoxical Thinking Effects and Supporting Empirical Evidence

After we established that paradoxical thinking interventions were effective in changing beliefs and attitudes in the context of the Israeli–Palestinian conflict, we turned our attention to elucidating the underlying psychological mechanism. In particular, in light of the applied significance of this type of interventions, we realized the importance of knowing what key psychological processes are responsible for the effectiveness of the intervention. Aside from earlier described processes relating to a surprised reaction and general disagreement with the paradoxical thinking messages, we also thought a third process would be important and serve as a condition that should be met: a perceived threat to the individuals' identities. We hypothesized that identity threat would play a significant role as paradoxical thinking messages force individuals to compare their held beliefs to the presented absurd and extreme beliefs, and/or it may lead to comparisons with group members who might hold these beliefs.

Divergent beliefs may threaten the personal and/or social identity of individuals by challenging the validity of their beliefs, and also by identifying them with other group members who might hold these beliefs (Jetten & Hornsey, 2014). Research on the black sheep effect (e.g., Marques & Paez, 1994), and on moral rebels (Monin, Sawyer, & Marquez, 2008) suggests that individuals reject such attitudinal deviants when they threaten their identity, i.e., when the deviance is in a domain that reflects badly on them. One of the reasons for this is that the attitudinal deviant forces the individual to question his or her own views or conduct, which may lead to a dissonance-like state (Monin et al., 2008). This is invoked when the individual perceives that there is inconsistency between the conveyed message or behavior and his or her personal or collective positive self-image, rather than with his or her beliefs and attitudes. One way to reduce this dissonance-like state, if invoked, is to derogate the attitudinal deviant (e.g., Monin et al., 2008). However, another way would be to distance oneself from the source of threat by changing or moderating his/her own beliefs and attitudes (Swann et al., 1988). Ultimately, we argue that the threat to identity has to be coupled with a sense of surprise and lower levels of general disagreement, in order to lead to a process of attitude unfreezing.

In order to examine this reasoning, we (Hameiri et al., 2018) conducted two studies among Jewish Israelis in the context of the Israely–Palestinian conflict. The first study was a conceptual replication of Swann et al. (1988). Participants, who held conflict-supporting beliefs, observed in a pretest conducted a few weeks prior to the manipulation, were invited to the lab for an interview. This interview was introduced as though we wanted to better understand the views the participants expressed in the pretest. In the paradoxical thinking condition, participants were asked 10 leading questions that were paradoxical, encouraging them to respond with statements that were consistent, but blatantly more extreme than the conflict-supporting beliefs they held (e.g., "Why do you think that the real and only goal the Palestinians have in mind is to annihilate us, a goal which even transcends their basic needs, such as for food and health?"). In the second, inconsistent condition, participants were asked 10 leading questions that encouraged them to respond with statements that negated their held beliefs (e.g., "Why do you think the real goal of the Palestinians is ultimately to live with us in peace?"). Participants were then asked to complete a questionnaire that measured the dependent variables, including unfreezing that was assessed in a similar manner as in the previous studies, and openness to alternative information (i.e., willingness to watch a movie that reflected the Palestinian perspective, or meeting Palestinians and hearing their views). The interviews were coded by two trained coders who were blind to participants' political orientation and research hypotheses. The coders rated the extent to which participants were surprised by the questions they were being asked, and their general disagreement with the interviewer.

Similar to our previous studies, we found that the paradoxical thinking manipulation led the more rightist participants to show more unfreezing and more openness to alternative information. At the same time, there were no significant effects for the more centrist and leftist participants. Based on the analysis of the trained coders, we found that all participants were more surprised by the questions that they were asked in the paradoxical thinking condition, regardless of their political orientation, than in the inconsistent condition. We also found an interaction on general disagreement, so that while rightist participants showed lower levels of disagreement with the questions they were asked in the paradoxical thinking condition, they showed higher levels of disagreement in the inconsistent condition.

In the second study, we (Hameiri et al., 2018) aimed to add another layer to the hypothesized mechanism and examined participants' sense of identity threat in order to provide a comprehensive account of the examined psychological process. This was done by conceptually replicating the study conducted by Hameiri et al. (2014b), reviewed above, to which we added a third, inconsistent condition in which we presented the participants with an inconsistent campaign, arguing that, contrary to what most Israeli Jews believe, Palestinians are credible partners for peace (see Bar-Tal et al., 2010). We included an inconsistent condition in this set of studies since, in the previous studies detailed above, we had either a control

condition that was unrelated to the Israeli–Palestinian conflict (Hameiri et al., 2014b), or that included no treatment (Hameiri et al., 2016).

Thus, we aimed to test the paradoxical thinking intervention versus another intervention. This allowed us to show that our intervention was more effective compared to other interventions in general, and that this held true in particular with the more hawkish participants. At the same time, we were able to examine whether the inconsistent interventions were more effective with the more centrist or leftist participants, as they tend to be more open to alternative information to begin with (Halperin & Bar-Tal, 2011). Differently from the previous study, all dependent variables were assessed using questionnaires. We had five waves of measurement. In the first, we obtained participants' demographic information. In waves 2–4, participants were asked to watch the video-clips, after which we assessed participants' surprised reaction, disagreement, and sense of identity threat (with items assessing participants' sense of threat to themselves, their cherished worldviews, and the way they perceive the Israeli society). In the final wave, we asked participants to watch the video-clips once again, and then we measured unfreezing and openness to alternative information. In the first stage, to simplify the statistical analysis, we averaged the measurements for each variable measured in waves 2–4 to obtain a single aggregated score for each psychological mechanism.

The results replicated and extended those found in the previous study. Importantly, the results also indicated that participants in the paradoxical thinking condition sensed more threat to their identities compared to the inconsistent and control conditions, and that the psychological mechanisms mediated the effect of the paradoxical thinking intervention (compared to both inconsistent and control conditions) on unfreezing and openness to alternative information. Interestingly, compared to the control condition, while we found that the paradoxical thinking intervention was effective among the more rightist participants, the inconsistent intervention was completely ineffective with the rightist participants, and showed only limited effectiveness with the centrist and leftist participants.

We were interested in understanding why the paradoxical thinking intervention specifically affects the rightist participants, who in this context tend to be more resistant to peace promoting messages. Thus, we (Hameiri et al., 2018) then examined the delicate interplay, or the possible interrelations, between identity threat, surprise, and general disagreement across time only among the rightist participants. To examine this, we used the measurement of these variables in waves 2–4. We were also able to examine how these processes affect and are affected by participants' levels of unfreezing across time, utilizing a cross-lagged panel model. The results showed that at first, identity threat led to more unfreezing, but then, the more the participants unfroze, the less they exhibited identity threat. General disagreement predicted lower levels of unfreezing across time, and surprise did not predict unfreezing across time, but was positively correlated with

unfreezing measured at the same wave. These results corresponded to the overall pattern of additional longitudinal analysis conducted (see Hameiri et al., 2018, online supplementary materials), in which, most notably, rightist participants in the paradoxical thinking condition showed a decrease in identity threat across time, while at the same time, they showed an increase in unfreezing.

Initial Evidence of Paradoxical Thinking Interventions in Other Contexts

Paradoxical thinking interventions have been found to be effective mainly in the context of the Israeli–Palestinian conflict. However, as a final piece of evidence, we would like to provide a couple of examples of paradoxical thinking interventions that were applied in other contexts as a preliminary indication that this approach might work in other domains. First, in the context of Germans' attitudes toward refugees and asylum seekers, Knab and Steffens (2017) adapted the paradoxical leading questions paradigm with samples of German citizens and German politicians who held antirefugee beliefs. The researchers found that the paradoxical thinking leading questions intervention (e.g., "Why do you think we will never ever celebrate Christmas again due to the high increase in refugees?" or "Why do you think that due to the refugees coming to Germany, all Germans soon will need to speak only in Arabic?") led participants to show more information seeking and willingness to compromise on their antirefugee beliefs, and to show less determinants of prejudice against refugees, most notably, symbolic and realistic threat. These effects were found when the paradoxical thinking condition was compared to an inconsistent condition (i.e., questions that encouraged participants to make statement that were inconsistent with the perceived threat from the refugees), and to a control condition. Indeed, this research and its findings are of particular importance, as the researchers showed that this approach was also effective among rightwing politicians who can design and implement future policies with regard to the admittance of refugees and asylum seekers.

Second, in the context of gender-based discrimination, the study conducted by Swann et al. (1988) described above is an initial piece of evidence of how paradoxical thinking interventions can be effective in this context. As mentioned, in their paradoxical-strategy condition, Swann et al. used leading questions that requested statements that were in line with, but blatantly more exaggerated than the conservative attitudes the participants held. Swann et al. (1988) found that the manipulation with 10 of these questions (e.g., "Why do you sympathize with the feelings of some men that women are better kept barefoot and pregnant?"), compared both to an inconsistent condition (or conventional-strategy condition in Swann et al. terminology) and a baseline control, led those who were more certain in their conservative attitudes to show the greatest moderation of conservative attitudes about women's roles following the manipulation.

Conclusions and Policy Recommendations

The effectiveness of the paradoxical thinking approach was established in the context of the Israeli–Palestinian conflict, a harsh and prolonged conflict, in online field experiments, with undergraduates in the lab, and as a real-world intervention. This line of research also provided empirical evidence for the hypothesized psychological mechanisms underlying the paradoxical thinking observed effects. It indicates the needed key ingredients when designing such interventions. As we believe that the paradoxical thinking approach has been established in this context, we would like to provide practical recommendations for how it can be applied in other conflictual contexts. Indeed, outside the context of the Israeli–Palestinian conflict the empirical evidence is scarce, as the paradoxical thinking conceptual framework was developed and then demonstrated mostly in the specific context of intractable conflict. Thus, the following practical recommendations are based on our theoretical understanding of the paradoxical thinking process and the mechanisms outlined above, as well as on our own research conducted in this context, as we believe that at this stage, the time is ripe to introduce the ideas to practitioners and policy makers (for a summary of recommendations, see Table 1).

Before we provide the practical recommendations, we would like to stress that "The Conflict" campaign materials were crafted and refined in a painstaking process for several years to suit this specific context and population. The leading questions paradigm materials in this context were also developed in a process of trial and error that included pilot testing over the course of several weeks. Then, by pilot testing the developed materials we assessed whether they will elicit the desired psychological process, rather than disagreement, rejection, and eventual resistance. Still, we argue that the following evidence-based recommendations, based on the fundamental idea of paradoxical thinking and its mechanisms, are rather general and should apply to other contexts and populations.

First, our findings suggest that at the practical level, messages should be nonjudgmental and without clear indication of a stance on the issue. For example, in Hameiri et al. (2018), while participants were asked the blatantly extreme questions, they were not judged by the interviewer, who did not indicate whether he thinks that agreeing with this question is right or wrong, nor did he judge the responses of the participants. In a similar vein, in Hameiri et al. (2014b), originally, we had a third condition, that included identical "The Conflict" video-clips to the original paradoxical thinking condition, with only one difference, being that they ended with the following question: "Do you have the courage to live without it?" (i.e., the conflict). However, we found no effect for this condition, as participants reacted exactly like those in the control condition, and it was omitted from the final analysis. This was presumably because this question made the video-clips more judgmental, and communicated a clear stance on the issue from the message source (e.g., Arieli et al., 2014; Perloff, 2010).

Table 1. Summary of Policy Recommendations for a Paradoxical Thinking Intervention

Recommendation	Implication(s)
Paradoxical thinking messages should be **nonjudgmental** and without a clear stance on the issue.	(1) Leaves intention and stance of the source unclear, thus reduces defensive reactions and leads to thorough processing; (2) May lead to an attempt to compensate for what might be perceived as an inappropriate response to extreme content.
Paradoxical thinking messages should be consistent with the held attitudes and beliefs, provoking **low to medium levels of disagreement**. This should be based on preliminary surveys assessing the public's stance on the issue.	Messages that fall within recipients' latitude of acceptance are considered, while if they fall outside this latitude they are dismissed or rejected.
Paradoxical thinking messages' blatant extremity or subtle extrapolation of absurd conclusions should elicit **surprise** or a sense of **absurdity**. Messages should be pilot tested to ensure that they also fall within recipients' latitude of acceptance.	Allows for recipients to bypass or derail resistance, thorough processing of the message, and openness to new and alternative information.
Paradoxical thinking messages should elicit a sense of **identity threat** by challenging recipients' important and positive aspects of their personal and social identities. This can be achieved by insinuating, subtly or blatantly, that the current identity is associated with views that the person would consider inappropriate, extreme, or absurd.	Leads to identity threat when the individual perceives that there is an inconsistency between the conveyed message and his or her personal or social positive self-image, rather than with his or her actual beliefs and attitudes. Identity threat can lead to unfreezing of beliefs and attitudes
Paradoxical thinking interventions would likely **not have an immediate effect**, and thus should not be based on a single exposure to its messages.	Empirical evidence suggests that a single exposure is not sufficient for individuals to perceive the absurdity of the message, and may understand it in the literal sense.

Second, practitioners and policy makers are recommended to develop messages that are surprising and more extreme than individuals hold, but within their latitude of acceptance. This should be based on, first, assessing the general public's stance on the issue, and then pilot testing of different messages to gauge whether they fall within the recipients' latitude of acceptance, provoking low to medium levels of disagreement, and allowing for further processing. For example, in Hameiri et al. (2018), as the participants sampled for the study all held conflict-supporting beliefs, based on a preliminary questionnaire, many of them most likely believed that the Palestinian do want to annihilate Israel, which corresponds to the siege mentality shared by the majority of Israeli Jews (e.g., Schori-Eyal, Klar, Roccas, & McNeill, 2017). Furthermore, we then amplified and exaggerated the leading questions we used, and suggested that, for example, not only do the Palestinians want to annihilate Israel, but also that this is the only goal they support, and

that this need is stronger than the need to eat and be healthy. This was surprising to the participants, as they were not used to hearing such extreme and even absurd statements, not to mention being asked why they themselves hold these extreme views.

Similarly, "The Conflict" materials were developed based on the analysis of the Israeli-Jewish ethos of conflict (e.g., Bar-Tal, 2013; Bar-Tal et al., 2012), and were designed to fall within recipients' latitude of acceptance. This included, first and foremost, that the materials did not refute the targeted ethos of conflict belief, with imagery that included the Israeli flag and iconic scenes and pictures from Israel's history (see examples in Hameiri et al., 2016). Furthermore, the subtle exaggeration by extrapolating an absurd conclusion from this belief, such that Israeli Jews need the conflict in order to maintain the belief in question, led to a surprised reaction by the participants as this extrapolated conclusion was unusual, and they probably had not been exposed to it in the past.

Then, the most important aspect of a successful paradoxical thinking intervention is to elicit a sense of identity threat among the message recipients. Practitioners and policy makers, then, need to identify what would serve as an important and positive aspect in the message recipients' social identity, and challenge this perception by insinuating, subtly or blatantly, that this social identity is in fact associated with views that they would perhaps consider inappropriate, extreme, or absurd. Based on the evidence obtained in Hameiri et al. (2018), whether it was "The Conflict" campaign, or the leading questions paradigm, as participants detected similarity with their own views, they were forced to compare themselves and their held beliefs to the extreme or absurd beliefs that were conveyed in the messages or questions, or to others who might hold these beliefs. In the case of a successful intervention, the recipients would gauge whether these comparisons reflect badly on them and reach a conclusion that indeed they do. For example, recipients can conclude after being asked the blatantly extreme questions (e.g., "Why do you think that the real and only goal the Palestinians have in mind is to annihilate us, a goal even transcending their basic needs such as food and health?") that yes, they believe that many Palestinians want to annihilate Israel, but not all Palestinians want this. In other cases, this process might have led to the realization that only radical or extreme group members hold the views that are conveyed in the message, which can lead to increased motivation to distance themselves from these extremists.

As a final recommendation, our findings suggest that when using an intervention that is based on the paradoxical thinking principles, it will likely not have an immediate effect on unfreezing and openness to alternative information after a single exposure, in case of "The Conflict" campaign, or after a single question, in case of the leading questions paradigm. Although we have not investigated this issue systematically, it seems from the reviewed research (Hameiri et al., 2018; see also Hameiri et al., 2014b) that a single exposure is not sufficient for individuals

to perceive the absurdity of the message. At the same time, the intervention immediately makes individuals sense that the messages pose a threat to the way they perceive themselves, their worldviews, and their group. However, we hypothesize that in order to have the desired effect, this threat needs to be coupled with a surprised reaction, that according to the literature, leads to more in-depth processing of the message, and relatively low levels of general disagreement with the message so that individuals will not reject the message immediately. We argue, although we did not empirically examine this in our research, that only when these conditions are met will the paradoxical thinking message lead to an in-depth exploration of the meaning of the identity threat that was sensed. This process may lead to the realization of the absurdity of the held beliefs or the current situation, which will be manifested in an increase of unfreezing across time. Simultaneously, as unfreezing intensifies, and consequently, openness to alternative information develops, the message no longer poses an identity threat.

In sum, we think that we have successfully observed and validated the existence of a phenomenon that was previously almost completely unnoticed in social psychology, i.e., paradoxical thinking (with the one exception being Swann et al.'s, 1988, study). This phenomenon has great importance because it suggests a new paradigm for attitude change. Moreover, it opens a new avenue for changing attitudes of people who hold them with great confidence and are highly motivated to adhere to them. In the context of the Israeli–Palestinian conflict, these individuals constitute a special challenge because they often hold key beliefs and attitudes that prevent social and political change necessary for the well-being of a group, a society, the international community and even the whole world.

The context of intergroup conflicts, as well as other important contexts, such as attitudes toward refugees and asylum seekers and gender-based discrimination that were noted above, unequivocally indicates the need for changing what are arguably destructive beliefs and attitudes. Moreover, we deeply believe that in many other important areas such as climate change, racism, and poverty, where attitudes are a crucial factor for societal change, paradoxical thinking interventions may be a useful method to instigate such a change. This is particularly the case when comparing the success of paradoxical thinking interventions with other interventions that social psychologists typically use to change beliefs and attitudes. For instance, many current interventions are based on providing supposedly undeniable, reliable, and valid information that contradicts held beliefs and attitudes. Such interventions make use of films, mass media, or education; or use indirect means by enabling experiences that lead to conclusions about the invalidity of the held views. A clear example of this method is to bring members of minority and majority groups into contact. This, as we noted, can be effective, but at the same time, it has inherent limitations when individuals who adhere to their attitudes are not motivated to change their repertoire of beliefs and attitudes, and do not even want to be exposed to contradictory messages. However, it is exactly these

individuals who must change their beliefs and attitudes in order to bring relief, well-being, and welfare to their society and to the international community.

We suggest that the paradoxical thinking paradigm is one way, together with other approaches, that could deal with these challenging cases. Not only laboratory studies have shown its effectiveness, but we have also been able to carry out one field study in a real setting, in the inhibitory context of widespread violence. In this study, we showed moderation among individuals with adamant positions regarding the continuation of the conflict. We believe that it is possible to extrapolate from these findings to other cases as well. In our research program, we were able to set the general frame for studying other contexts. We established the needed ingredients that may lead to attitude change: the content of the messages, their valence, conditions, and the required instigation of surprise and threat to identity.

Clearly, application of the paradoxical thinking paradigm requires creativity in order to develop the intervention, select the targets, and then implement the interventions. Our research mostly examined a media campaign that was developed over the course of several years. This requires considerable investment, both in terms of funding and effort. Planning the use of this approach is not a simple mission and we hope that the present article can provide practical tools for others who consider using this type of intervention. The whole endeavor should be seen as the beginning of a journey that we hope will, in time, bring applications of the paradoxical thinking paradigm to different situations, groups, and individuals. We offer one minor step toward creating what we hope will be a better world.

Acknowledgements

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