

# **Psychological Interventions to Reduce Support for Ingroup Harmdoing in Intergroup Contexts**

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*In memory of my great grandparents,  
Leopold and Sarah Rachel Coorsh,  
and my great aunts and uncle,  
Jeanie, Mary and Leslie Coorsh  
- civilian victims of war*



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## English Summary

Intergroup violence is one of the most pressing problems in the world today. Human beings are capable of inflicting tremendous suffering on others when circumstances permit. Animals in factory farms are one of the main victims of human harmdoing, with billions killed each year for food, often after living their whole life in cramped and terrible conditions. In the context of war and large-scale intergroup violence, other people are the victims. According to some estimates, over 108 million people have been killed in the twentieth century alone due to war. More still have been tortured, injured, lost loved ones, and become displaced as a result of harm committed by outgroups. In both these intergroup contexts, harmdoing is often justified, accepted, and supported by perpetrators at the societal level. Support for ingroup harmdoing can be explained, at least in part, by social psychological factors including the need to protect ingroup moral identity, and by cognitive and affective processes.

It was the goal of this thesis to develop and empirically test novel psychological interventions to reduce support for ingroup harmdoing towards outgroup members. We focused on the central role of morality in evaluations of ingroup harmdoing and explored three different ways to leverage moral identity, moral reasoning, and moral emotions to reduce support for ingroup harmdoing. We focused on two distinct contexts where harmdoing is widely supported by ingroup members: harm to animals in factory farming and the Israeli-Palestinian intractable conflict.

The aim of the first intervention was to reduce moral identity threat, and therefore defensiveness about ingroup harmdoing, by morally absolving (vs. morally blaming) people when providing information about ingroup harmdoing. This intervention was tested in the context of harm to animals in factory farming. Altogether, across three studies, raising awareness of harm to animals while absolving (vs. blaming) participants for the harm, reduced defensive responses and led to more positive attitudes and behavioral intentions towards harm reducing behavior (i.e., veganism/vegetarianism). The next two interventions were tested in the context of an intractable conflict. The second intervention recruited analogical reasoning to encourage more objective evaluation of ingroup harmdoing, specifically collective punishment. The intervention involved asking participants to evaluate an analogous case of harmdoing in a remote context where their moral judgment was not motivated, before considering ingroup harmdoing. Across six studies, we consistently found

that considering a similar case of harmdoing in a remote context led participants to judge ingroup harmdoing as more morally wrong. We further explored boundary conditions and mechanisms for this effect. Finally, the third intervention tested the effects of moral elevation, an emotional experience evoked from witnessing acts of exceptional moral goodness, on support for harm-reducing policies. We tested this by exposing people to a morally elevating (vs. amusing) video clip and found that experiencing moral elevation increased moral concern for others and support for humanitarian policies towards outgroup members.

By identifying three novel approaches for reducing support for ingroup harmdoing, this work adds to the field of intergroup interventions. This thesis demonstrates that identity-based, cognitive, and affective processes that contribute to support for ingroup transgressions, can also serve to reduce such support when targeted by psychological interventions. By informing ways to effectively reduce support for ingroup harmdoing, this work also has applied lessons for educators and social justice campaigners. Future work could extend knowledge of each intervention approach, including identifying further boundary conditions and testing the endurance of effects, helping to determine the generalizability of each intervention and their applied potential. In conclusion, the work in this thesis has established new avenues for interventions to encourage people to critically reflect on ingroup harmdoing towards outgroup members. By protecting perpetrator's moral integrity in the face of wrongdoing and by strengthening moral values and principles, these interventions can attenuate justification of ingroup wrongs and ultimately reduced support for harmful ingroup behavior.

## Zusammenfassung

Gewalt zwischen Gruppen ist heute eines der drängensten Probleme der Welt. Menschen sind in der Lage, anderen enormes Leid zuzufügen, wenn die Umstände dies zulassen. Tiere in Massentierhaltungen sind eines der Hauptopfer menschlicher Gewalt – jedes Jahr werden Milliarden für Nahrung getötet, oft nachdem sie ihr ganzes Leben unter beengten und fürchterlichen Bedingungen verbracht haben. Im Kontext von Krieg und groß angelegter Gewalt zwischen Gruppen sind andere Menschen die Opfer. Schätzungen zufolge wurden allein im 20. Jahrhundert über 108 Millionen Menschen durch Krieg getötet. Noch mehr wurden gefoltert, verletzt, verloren geliebte Menschen oder wurden aufgrund von Schäden, die von Fremdgruppen begangen wurden, vertrieben. Auf gesellschaftlicher Ebene ist zu beobachten, dass in diesen beiden Intergruppenkontexten der begangene Schaden oft von den Tätern gerechtfertigt, akzeptiert und unterstützt wird. Dieses Phänomen lässt sich zumindest teilweise durch sozialpsychologische Faktoren erklären, einschließlich der Notwendigkeit, die moralische Identität der Eigengruppe zu schützen, sowie durch kognitive und affektive Prozesse.

Das Ziel dieser Arbeit war es, neuartige psychologische Interventionen zu entwickeln und empirisch zu testen, um die Unterstützung für Schadenszufügung gegenüber Fremdgruppenmitgliedern durch die Eigengruppe zu reduzieren. Wir konzentrierten uns auf die zentrale Rolle der Moral bei der Bewertung von Gruppenverletzungen und untersuchten drei verschiedene Möglichkeiten, moralische Identität, moralisches Denken und moralische Emotionen zu nutzen, um die Unterstützung der Schadenszufügung bei Eigengruppenmitgliedern zu verringern. Wir haben uns auf zwei unterschiedliche Kontexte konzentriert, in denen die Schadenszufügung von den Mitgliedern der eigenen Gruppe weitgehend unterstützt wird: die Schädigung von Tieren in der Massentierhaltung und der schwer lösbare israelisch-palästinensische Konflikt.

Das Ziel der ersten Intervention war es, die Bedrohung der moralischen Identität und damit die Abwehrhaltung gegenüber Schadenszufügungen zu reduzieren, indem Personen moralisch freigesprochen (im Gegensatz zu moralischen Schuldzuweisungen) wurden, wenn sie Informationen über Schadenszufügungen bereit stellten. Diese Intervention wurde im Zusammenhang mit der Massentierhaltung getestet. Insgesamt reduzierte die Sensibilisierung der Teilnehmer\*innen für die Schädigung von Tieren in drei Studien die Abwehrreaktionen und führte zu positiveren Einstellungen und Verhaltensabsichten in Bezug auf schadensminderndes Verhalten (d. h. Veganismus/Vegetarismus). Die nächsten beiden

Interventionen wurden im Zusammenhang mit schwer lösbaren Konflikten getestet. Die zweite Intervention nutzte analoges Schlussfolgern, um eine objektivere Bewertung von Gruppenverletzungen, insbesondere kollektiver Bestrafung, zu fördern. Die Intervention bestand darin, die Teilnehmer\*innen zu bitten, einen analogen Fall von Schadensersatz in einem entfernten Kontext zu bewerten, bei dem sie vom moralischen Urteil nicht betroffen waren, bevor sie Schadensersatz für den Fall in Betracht zogen, bei dem ihre Gruppe betroffen war. In sechs Studien haben wir festgestellt, dass die Betrachtung eines ähnlichen Schadensfalls in einem entfernten Kontext dazu führte, dass die Teilnehmer\*innen den Schaden, der die eigene Gruppe ausübte, als moralisch falscher beurteilten. Wir haben die Randbedingungen und Mechanismen für diesen Effekt weiter untersucht. Schließlich testete die dritte Intervention die Auswirkungen der moralischen Erhebung, einer emotionalen Erfahrung, die durch das Miterleben von Handlungen außergewöhnlicher moralischer Güte hervorgerufen wird, auf die Unterstützung für schadensmindernde Maßnahmen. Wir testeten dies, indem wir Menschen einem moralisch erhebenden (vs. amüsanten) Videoclip aussetzten und fanden, dass das Erleben moralischer Erhebung die moralische Sorge um andere und die Unterstützung humanitärer Maßnahmen gegenüber Mitgliedern der Fremdgruppe verstärkte.

Durch die Identifizierung von drei neuartigen Ansätzen zur Verringerung der Unterstützung von gruppeninternen Schadenszufügungen erweitert diese Arbeit das Feld der Interventionen für Intergruppenkontexte. Diese Arbeit zeigt, dass identitätsbasierte, kognitive und affektive Prozesse, die zur Unterstützung von Schadenszufügungen beitragen, auch dazu dienen können, diese Unterstützung zu reduzieren, wenn sie durch psychologische Interventionen gezielt adressiert werden. Indem sie Möglichkeiten aufzeigt, wie die Unterstützung für gewalttätiges Handeln innerhalb der Gruppe effektiv reduziert werden kann, beinhaltet diese Arbeit auch Hinweise für Pädagog\*innen und Aktivist\*innen im Bereich der sozialen Gerechtigkeit. Zukünftige Arbeiten könnten schließlich das Wissen über jeden Interventionsansatz erweitern, einschließlich der Identifizierung weiterer Randbedingungen – sowie der Prüfung der Langlebigkeit der Effekte. Dies würde dazu beitragen, die Verallgemeinerbarkeit der Interventionen und ihr Potenzial für die Anwendung zu bestimmen. Zusammenfassend lässt sich sagen, dass die Arbeit neue Wege für Interventionen eröffnet hat, um Menschen zu ermutigen, kritisch über schädigendes Verhalten von Mitgliedern der Eigengruppe gegenüber Mitgliedern einer Fremdgruppe nachzudenken. Indem die moralischen Integrität des Täters geschützt und die moralischen Werte und Prinzipien gestärkt wurden, schwächten die Interventionen die Rechtfertigung von



Fehlverhalten ab und verringerten letztendlich auch die Unterstützung für schädigendes Verhalten.



# Chapter 1: Introduction

Human beings are capable of inflicting harm of appalling proportions on others. When individuals commit extreme acts of violence, such as murder and abuse, these acts are normally unequivocally deemed morally wrong by society. However, when severe harm is perpetrated by one group towards another group on a mass scale, such as in wars and in systems of exploitation, this conduct is often regarded as acceptable and at times even morally good (Ascher, 1986; Cohen et al., 2006; Fiske & Rai, 2014). Thus, ingroup-committed violence towards members of another group frequently continues, unabated by criticism, and even supported.

Why is ingroup harmdoing so readily condoned by other ingroup members, in the context of intergroup conflict? Social psychologists have identified identity-based, cognitive, and affective processes that help explain support for ingroup-committed harm towards outgroups (Bilali, 2012; Roccas et al., 2006; Saguy & Reifen-Tagar, 2022; Wohl et al., 2006). According to Social Identity Theory, individuals are motivated to view their group in a positive light because people derive self-esteem from the groups to which they belong (Tajfel, 1978; Tajfel & Turner, 1979). When identification with a particular group is a core aspect of a person's self-concept, as is often the case with national, ethnic, or religious groups (Hamidou-Schmidt & Mayer, 2020), the individual's self-image is even more strongly bound with their group membership (Tropp & Wright, 2001). Acknowledging wrongdoings committed by one's ingroup, even acts in which the individual was not personally responsible, can be highly threatening (Čehajić-Clancy et al., 2011). Therefore, in order to preserve their own self-worth, people will often be driven to justify and rationalize harmful conduct that is committed by their group.

Social psychologists have examined the ways in which people justify the harm committed by their group. Moral Disengagement Theory describes the cognitive processes that allow people to engage in, or support actions, that they would usually judge as immoral, without experiencing the expected accompanied distress (Antony, 2019; Bandura, 2011, 2017; Cohrs et al., 2003). In order to justify their group's harmful actions, ingroup members may minimize or distort the consequences of their conduct, for example, by claiming civilian victims were combatants or contesting the number of outgroup victims (McDoom, 2020). Group members may also strategically compare their group's harmful actions to even more reprehensible conduct that was committed

elsewhere, making their group's actions appear relatively minor (Aquino et al., 2007). If one can frame their harmdoing as not actually being that harmful to begin with, then this poses minimal threat to moral identity.

Research has also pointed to emotions as powerful influencers of attitudes related to ingroup harmdoing in conflict (Halperin & Tagar, 2017). For example, contempt, an emotion associated with viewing a target as unworthy and unrespectable, predicts passive harm, such as withholding help and avoiding cooperation (Elad-Strenger et al., 2022). The emotion of hatred has been singled out for its role in leading to support for aggressive policies (Halperin, 2011). On the other hand, empathizing with outgroup suffering tends to lead to reduced support for harmdoing (Roth et al., 2017), and guilt can lead group members to support reparations for past harm (Vanman, 2016). In the context of ongoing conflict and exploitation, however, it is rare for ingroup members to experience guilt about ingroup harmdoing (Wohl et al., 2006). Additionally, ingroup members often feel less empathy towards outgroup members than towards fellow ingroup members, even when they are experiencing similar hardship (Brown et al., 2006; Levy et al., 2016; Vanman, 2016).

Although there is a wealth of research highlighting the barriers to acknowledging ingroup wrongdoings, less is known about ways to reduce support of ingroup harmdoing (exceptions include Bilali & Vollhardt, 2019; Buttlar & Walther, 2019; Čehajić-Clancy et al., 2011; Morton & Postmes, 2011; Palomo-Vélez et al., 2018; Shuman et al., 2018; Wohl & Branscombe, 2008). In this thesis, I aimed to develop and test psychological interventions to sensitize ingroup members to harm conducted towards outgroup members via identity-based, cognitive, and affective processes. In each project, a different psychological intervention was developed and tested in multiple empirical experimental studies with the broad aim of better understanding how to reduce support for ingroup harmdoing towards outgroup members. The approach taken in this work involved encouraging reflection about ingroup transgressions, while simultaneously circumventing defensive responses that can consume mental resources and inhibit change. Before describing each of the interventions, I will explain key terms, concepts, and theories that are central to the research.

Below I provide an overview of the specific intergroup contexts that I have addressed in the thesis (animal-human relations and intractable conflict) and the psychological mechanisms people use in response to ingroup harmdoing. I then describe psychological principles of attitude change and outline existing psychological

interventions that have been developed and tested in both contexts. Finally, I present the goals of the thesis and summarize the three chapters that comprise this work.

### **Two Intergroup Contexts**

I have focused on two distinct intergroup contexts. Two of the three projects in the thesis are related to harmdoing in the context of the Israeli-Palestinian intractable conflict, and specifically harm perpetrated by the Jewish-Israeli side of the conflict. The other project is related to harm perpetuated by humans (specifically omnivores) towards animals in factory farming. Although these are different contexts, they share some similarities and both involve the perpetration of harm across groups. In both contexts, support of harm is highly motivated and is normalized at the societal level.

### **Human-Animal Relations**

Despite humans valuing animals, humans also routinely exploit animals and find ways to justify harming them (Joy, 2010; Serpell, 2009). Animal exploitation is most apparent in factory farming for meat and animal products. Billions of animals are killed worldwide each year for food – an estimated 50 billion chickens, over a billion pigs, and hundreds of millions of sheep, goat and cattle (Sanders, 2020). In the Western world, the vast majority of animals used for food are raised in factory farms, where profit is the priority (Williams, 2008). These animals are raised in terrible conditions, subject to cramped living spaces, improper hygiene, and diseases, and distressing practices such as force-feeding, mother and baby separation, and being transported alive for long distances in inadequate conditions (Favre, 2016; Petherick, 2005). Systematic harm towards animals is widely legitimized and is the norm in Western society (Caviola et al., 2019). Through media, parenting, and culture, children are socialized to endorse the idea that humans are superior over non-human animals (Cole & Stewart, 2016) and the consumption of meat and animal products is ingrained in social and cultural practices. Meat is also associated with many positive terms including power, masculinity, luxury, status, good taste, and health (Ruby, 2012; Ruby & Heine, 2011). In contrast, there are often negative connotations with veganism and vegetarianism, and the small minority who do chose to forgo meat are often subject to prejudice and negative stereotypes (Bryant et al., 2022; De Groeve & Rosenfeld, 2022)

### **Violent Intergroup Conflict**

It has been estimated that violent conflicts have claimed at least the lives of 108 million people in the twentieth century alone (Hedges, 2003). Today, dozens of countries

are embroiled in conflict with other nations or are host to civil wars, causing immeasurable suffering. The current 2022 Russian invasion of Ukraine tragically demonstrates that intergroup conflict remains one of the biggest problems of our time. Some conflicts are distinct by being long lasting, violent, and by exerting a severe physical and psychological toll on the societies engaged in them (Bar-Tal & Halperin, 2013). These conflicts have been termed intractable (Bar-Tal 2007). Examples of such conflicts include the Israeli-Palestinian conflict, the Kashmir conflict between India and Pakistan, and the Syrian civil war. In order to justify the conflict in which they are a part, societies create conflict supporting narratives, for example that the outgroup is evil (Giner-Sorolla et al., 2012) or that the ingroup is the perpetual victim (Schori-Eyal et al., 2017). These narratives are shared and amplified in the media, education system, and at home (Nasie et al., 2021), leading society members to develop a relatively homogenous set of entrenched views, that are often biased and simplistic, in support of the conflict and the ingroup's actions. The Israeli-Palestinian conflict has been referred to as a prototypical intractable conflict (Oren & Bar-Tal, 2007). Although intractable conflicts often revolve around a struggle over resources, such as land and power, to fully understand the complexity of conflict one also has to examine underlying psychological factors, such as beliefs about, and emotions towards, the enemy group (Saguy & Reifsnider, 2022) and biased information processing (Halperin & Bar-Tal, 2011) that can fuel conflict. There is converging evidence that points to the biased nature of people's judgments in conflict, specifically demonstrating the ways that people allow themselves to view ingroup-committed wrongdoing more favorably than harm committed by the outgroup or a third party (Leidner & Castano, 2012; Tarrant et al., 2012).

### **Integrating Human-Animal Relations in Intergroup Relations Research**

Although our work focuses on two distinct intergroup contexts, there are some similar psychological processes that can explain support for wrongdoing towards human outgroups and towards animals. In recent years, psychologists have begun to integrate theories from intergroup relations to advance understanding about human-animal relations (Dhont et al., 2019; Sevillano & Fiske, 2019). Discrimination against animals specifically based on the fact that they are not members of the human-race has been termed speciesism (Dhont et al., 2020; Singer, 2009). Although most people endorse speciesism to some extent, researchers have shown that stronger endorsement of speciesism is associated with more prejudicial attitudes towards human outgroups (Caviola et al., 2019). Moreover, psychological connections and processes that underpin

both support of harm towards human outgroups and non-human animal targets have been identified (Dhont et al., 2019). For example, those who score higher in Social Dominance Orientation (SDO), in other words those who have a preference for inequality among social groups, both hold more aggressive attitudes towards outgroups in the context of violent intergroup conflict (Joy, 2010) and endorse speciesism more (Caviola et al., 2019). Considering the similarities between these contexts, we may be able examine the psychological mechanisms associated with support for harming towards animals and human outgroups under the same broad framework.

### **Psychological mechanisms in response to ingroup harming**

Causing harm to others does not sit well with people's view of themselves and their group as moral, which leads to psychological discomfort, known as cognitive dissonance (Festinger, 1957). This is a well-studied phenomenon in the context of eating meat. The contradiction that comes with eating meat and valuing animals is referred to as the meat paradox or meat-related cognitive dissonance (Bastian & Loughnan, 2017; Rothgerber, 2020). A substantial body of work has highlighted the psychological defenses that people use to resolve the meat paradox (Buttler & Walther, 2019; Prunty & Apple, 2013; Rothgerber, 2020). In the context of intergroup violent conflict, ingroup committed violence can call into question the moral integrity of one's ingroup (Roccas et al., 2006; Shnabel & Nadler, 2008). Ingroup morality, even more than competence and sociability, provides a strong basis for a positive group image (Leach et al., 2007, p. 200). Ingroup harming therefore threatens a core aspect of the group's image. A wealth of research has explored mechanisms that ingroup members use to cope with the threat to moral self-image brought about by ingroup transgressions (Bandura, 2017; Martiny et al., 2012; Rotella & Richeson, 2013; Sullivan et al., 2012; Tarrant et al., 2012). Below I outline some of the key mechanisms that people use to psychologically cope with harming and protect their and their group's moral identity, both in the context of harm to animals in factory farming and harm towards outgroup members in violent intergroup conflict.

The first line of psychological defense is avoidance (Kunst & Hohle, 2016). If one can avoid information about ingroup transgressions and their effects, then dissonance can also be avoided (Rotella & Richeson, 2013; Rothgerber, 2020). In both intergroup contexts, avoidance is facilitated by societal factors and is the result of conscious and unconscious motivations. People are motivated to avoid information that will lead to negative emotions or force them to reconsider their attitudes or behaviors (Carrillo &

Mariotti, 2000; Golman et al., 2017), and thus they avoid information about ingroup harmdoing.

Avoidance of information about the production of meat and animal products is common (Onwezen & van der Weele, 2016; Rothgerber, 2014) and allows people to protect a view of themselves as moral, while still continuing to eat meat. The industrialization of meat production helps people avoid reminders about the origins of meat. Factory farms, due to their large size, are often placed in physically distant locations, making the animal slaughtering process and potentially upsetting smells, sounds, and sights, avoidable and psychological distant (Bastian & Loughnan; Segers, 2012, Singer 1995). Surveys have found that people do quite well at avoiding information about the treatment of the animals that they consume - one study found that 52% of people believed “most farmed animals are treated well” and 60% of US consumers thought that the food they purchase “usually come from animals that are treated humanely.” In reality, over 99% of US farm animals live on factory farms (Anthis, 2017). Discussing the topic of animal welfare is also taboo in most social circles, turning personal avoidance into a cultural norm (Bray et al., 2016; Rothgerber, 2014). Avoidance is particularly problematic, as knowledge is a strong predictor of support for harm reduction and intentions to become vegan and vegetarian (Cornish et al., 2016).

In the context of violent intergroup conflict and war, multiple factors also promote avoidance of information about ingroup harmdoing. If outgroup members are in another country or reside in a separate geographical location, their suffering is out of sight and more easily avoidable (Penic et al., 2018). Additionally, the fact only a small fraction of a society may be directly using violence against outgroup members (e.g., soldiers, combatants) also helps most ingroup members to avoid the realities of conflict. Even among those directly engaged in harmdoing, advancement in lethal technologies, such as unmanned aerial vehicles or armed drones, can allow warfare to become remote and shield harmdoers from the consequences of their actions (Bandura, 2017; Campo, 2015; Hijazi et al., 2019). For the general public, state-censorship and self-censorship of conflict related information serves as a further societal mechanism enabling avoidance of conflict related information (Hameiri et al., 2017). When information is available, people may actively or unconsciously try to avoid it, because people are predisposed to avoiding information that paints their group in a negative light (Knobloch-Westernwick et al., 2020; Kroon et al., 2022). Ingroup members may also avoid contact with outgroup members, thus severing another possible source of information about ingroup harmdoing (Ron et



al., 2017). Even when intergroup contact encounters do occur, members of the perpetrator group may prefer to discuss topics like group commonalities (Saguy et al., 2009) and avoid discussing topics like ingroup-committed violence, which threatens the group's moral image (Shnabel & Nadler, 2008).

When avoidance is not possible, there are a multitude of justifications that people use to cope with the discomfort of ingroup harmdoing. One frequently used line of defensive justification is downplaying the pain and experience of outgroup victims. In the context of meat-eating, this involves denying the suffering and mental capacity of animals. Studies have shown that specifically after classifying an animal as meat, or after eating meat, people attribute less suffering and less mental capacity to animals, suggesting that this is a psychologically motivated response to reduce dissonance (Bratanova et al., 2011; Loughnan et al., 2010). Viewing animals as devoid of thoughts and feelings, makes it psychologically easier to harm them and reduces guilt about past harmdoing (Bilewicz et al., 2011). In the domain of intergroup violent conflict, ingroup members frequently downplay outgroup suffering and derogate victims. Decades of research have focused on the ways that people view outgroup members as lesser beings (Haslam & Loughnan, 2014). Outgroups members may be explicitly dehumanized. Explicit dehumanization involves blatantly denying the humanity of outgroup members, and often uses metaphors to suggest group members are akin to "lower" non-human entities that deserve to be harmed (e.g., rats or cockroaches). Dehumanization is often much more subtle and can take the form of perceiving outgroup members as less intelligent, less refined and less likely to experience complex, uniquely human emotions such as pride or regret (Castano & Giner-Sorolla, 2006; Haslam & Loughnan, 2014; Leyens et al., 2001). If certain people do not think and feel to the same extent as others, then their suffering is less too, and causing harm to these people is less of a moral problem.

Another line of justifications is more direct and takes the form of claiming that harmdoing serves a greater purpose. In the context of harm to animals, meat eaters may claim that meat is nutritional, evolutionary and natural (Modlinska & Pisula, 2018; Piazza et al., 2015). Some argue that humans are superior over animals and animals are intended for humans to eat (Dhont & Hodson, 2014). Harmdoing towards animals is therefore tolerated, as it is framed as a necessary and natural process. Justifications of this in the context of violent intergroup conflict may involve claiming that harmdoing serves a moral purpose. For example, research findings showed that both Israelis and Palestinians

attributed their own group's violent actions to an intention to protect the in-group (Waytz et al., 2014). Other work has similarly found that when participants were asked to consider their own groups' violent conduct, moral principles of loyalty and authority came to the foreground, whereas principles of harm and fairness became relatively less accessible (Leidner & Castano, 2012). By shifting to view morality in terms of loyalty and authority, and away from harm and fairness, group members were then better positioned to justify ingroup wrongdoings and even make a virtue of evil (Leidner & Castano, 2012; Reicher et al., 2008).

Finally, dissonance induced by learning about ingroup harmdoing can be resolved via moral engagement. Moral engagement stands in contrast to avoidance and justification of harmdoing, and involves applying moral consideration to outgroup members. In the context of harm to animals, moral engagement may involve a process of empathizing with animals and changing behavior towards harm reduction, such as reduced meat consumption. Those who have become vegan often describe a catalytic experience that involved learning about animal suffering that sparked engagement. However, a very small percentage of people in almost every society are vegan or vegetarian suggesting that lasting moral engagement in this context is rare (Gradidge et al., 2021). In the context of violent intergroup conflict, moral engagement means using humane principles to govern attitudes and behavior towards outgroup members and including outgroup members in one's circle of moral regard (Bandura, 2017; Chalik & Rhodes, 2022). It is associated with pro-active moral action, including engaging in collective action to protect outgroup member from harm (e.g., attending anti-war protests) (van Zomeren et al., 2011).

### **Interventions to Unfreeze Attitudes**

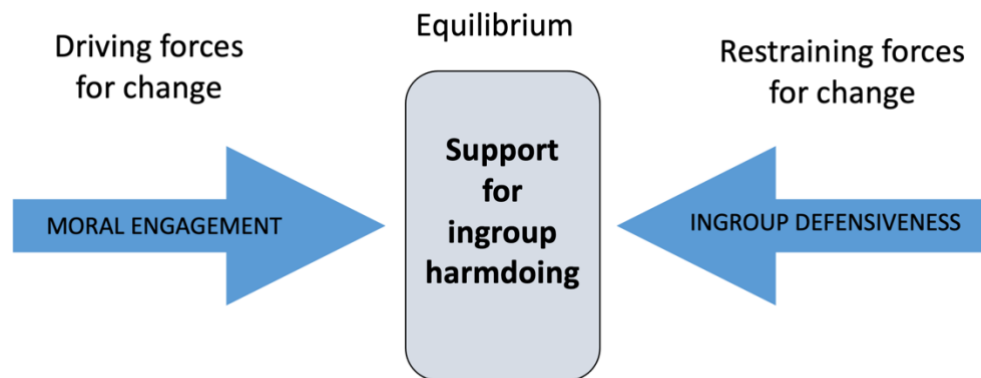
Kurt Lewin's Field Analysis Model introduced the central idea to social psychology that each attitude exists with a field of forces, and is maintained by driving forces that support change and restraining forces that support the status quo (Lewin, 1997; Lewin, 1951). To unfreeze attitudes and bring about change, the forces stabilizing an established attitude need to be altered, upsetting the equilibrium. It is the goal of psychological interventions to hone in on the psychological factors that are maintaining attitudes in order to leverage them for change.

We can consider interventions to reduce support for ingroup harmdoing through this lens. Psychological defenses and in-group norms supportive of ingroup harmdoing

may constitute restraining forces that hinder change. On the other hand, moral engagement, for example moral principles and values against causing harm to others and moral emotions, may constitute a driving force for reducing support for ingroup harmdoing (See Figure 1.1). These driving forces make change possible. An intervention may work by removing a restraining force (e.g., defensiveness), giving driving forces in the system space to take hold, or alternatively by amplifying a driving force (e.g., moral principles against harmdoing) weakening the effect of the restraining forces.

**Figure 1.1**

Driving and restraining forces that maintain support for ingroup harmdoing



Successful psychological interventions need to be aware of the complex psychological conditions that underly attitudes and the relationship between forces (Bargal, 2008). If attitudes are firmly entrenched or there is a strong motivation to hold on to an attitude, an attempt to change the forces at work may be unsuccessful or could even backfire. For example, teaching people about outgroup suffering in an attempt to amplify a driving force for change, may actually produce a stronger counter-force, such as increasing defensive justification, leading to change in the undesired direction (Levy & Maaravi, 2018). It is for this reason that interventions need to be rigorously empirically tested.

### **Interventions to Unfreeze Attitudes about Meat-Eating**

Interventions in the domain of meat-eating are challenging and face many barriers including, but not limited to, the fact that most people like meat, are surrounded by meat eaters, and meat eating is a habitual behavior (Hielkema & Lund, 2021). Some intervention target social norms, for example by providing messages about the growing numbers of vegetarians in a bid to persuade people to adapt their behavior in line with

norms and get behind the trend (Çoker et al., 2022; Sparkman et al., 2020; Sparkman & Walton, 2017). Other interventions aim to associate meat with their animal origins, for example by portraying photos of a live animal next to meat on a menu (Kunst & Hohle, 2016) or to evoke disgust by about meat consumption, such as by mentioning excrement in animal cages and pathogens in meat (Buttlar & Walther, 2019; Palomo-Vélez et al., 2018). Many interventions involve providing information about animal welfare and results of meta-analyses suggests that educating about animal welfare can be effective (Bianchi, 2018; Mathur et al., 2021). However, we also know that people are averse to information and images depicting animal cruelty and may choose to avoid it when possible (Cooney, 2014). Psychological interventions to increase acknowledgement of harm to animals need to bear in mind the tendency for resistance and defensive justification (De Groeve & Rosenfeld, 2022; Graça et al., 2016). There is work showing that when omnivores imagine being morally judged by vegetarians, they not only derogate vegetarians (Minson & Monin, 2012), but they are also more likely to derogate animals (Rothgerber, 2014), thus potentially entrenching harm-supporting views. One approach that has been found to reduce moral threat is for activists to focus on their own moral deficiencies, for example by mentioning that they occasionally eat meat (Rothgerber, 2014). Despite people being highly defensive about meat-eating, studies have shown that the majority of people in developing countries claim to care about animal welfare (Cornish et al., 2016). This is promising as concern for animals represents a driving force for harm-reducing change.

### **Interventions to Unfreeze Attitudes in Intractable Conflict**

Changing attitudes in the context of intractable conflict is extremely challenging (Halperin & Bar-Tal, 2011). Attitudes are often rigid for several reasons - society members have been socialized to support the intergroup conflict and attitudes are grounded in society members' ideology and identity (Bar-Tal et al., 2015). Defending the ingroup, whose actions may be subject to external criticism, is central to individual and group self-esteem, and therefore beliefs in support of the group are often held strongly and with moral conviction (Reifen Tagar et al., 2014), making them particularly resistant to change. Despite obstacles to conflict-related attitude change, psychological interventions have been found to improve attitudes towards the outgroup and support for conflict resolution, including in the case of the Israeli-Palestinian conflict (Bar-Tal & Hameiri, 2020; Saguy & Reifen-Tagar, 2022).

Psychological interventions to improve intergroup relations most commonly focus on teaching new skills, providing new experiences, or giving new information to group members (Halperin & Schori-Eyal, 2020). For example, perspective taking interventions are based on learning new skills and involve ingroup members learning how to take the perspective of outgroup members (Brown & Cehajic, 2008; Galinsky et al., 2005). Learning to consider how an outgroup member thinks and feels can reduce the psychological distance between the self and the other, leading to benefits including reduced stereotyping and prejudice towards and increased willingness to help the outgroup (Davis & Maitner, 2009; Galinsky et al., 2005; Todd & Galinsky, 2014). Intergroup contact is an example of one of the most frequently used interventions providing new experiences by bringing members of the two sides together and allowing them to foster a connection, share common goals, or discuss meaningful conflict-related topics (Al Ramiah & Hewstone, 2013; Çakal et al., 2021; Maoz, 2004; Mousa, 2020; Pettigrew et al., 2011; Pettigrew & Tropp, 2013). Intergroup contact is widely regarded as one of the most effective interventions for reducing prejudice (Boin et al., 2021). Even just imagining intergroup contact (Miles & Crisp, 2014), being exposed to intergroup contact in media (Brown & Paterson, 2016), or living in mixed settings where other group members engage in intergroup contact (Christ et al., 2014) has been found to yield similar positive effects as face-to-face contact. However, both learning new skills and gaining new experiences can often require individuals to be motivated to improve intergroup relations at the outset, which can sometimes be lacking in the context of violent intergroup conflict (Butz & Plant, 2011; Halperin et al., 2012). Interventions based on new information may involve group members learning about how groups and conflicts can change over time (Cohen-Chen et al., 2014; Goldenberg et al., 2018; Halperin et al., 2012) or it may involve educating people about their ingroup biases and providing information to correct them (Casas & Hameiri, 2022; Lees & Cikara, 2020; Nasie et al., 2021). If information is not rejected by message recipients, it may alter their mindset, influencing the way they interpret conflict-related events and think about peace (Rattan & Georgeac, 2017). Interventions for conflict resolution may also involve a combination of learning new experiences, new skills, and information.

### **The Need for Interventions to Reduce Support for Ingroup Harmdoing**

All the tools social psychology has to offer should be used to develop interventions to reduce support for ingroup harmdoing. Many interventions in the intergroup domain, particularly in the context of intergroup conflict, focus on reducing

prejudice and increasing harmony between groups. These are important outcomes, but they may not be sufficient to promote broader goals of justice and harm reduction (Saguy & Reifen-Tagar, 2022). Intergroup contact interventions are a case in point – intergroup contact has been found to reliably reduce intergroup prejudice, but it can also predict lower support for social change among low power groups, potentially allowing intergroup harm to continue unchallenged (Maoz, 2012; Reimer & Sengupta, 2022; Saguy et al., 2009; but see Kauff et al., 2017 for findings demonstrating the mobilizing effects of contact among lower power groups). Similarly, interventions that increase positive emotions towards animals may not necessarily increase support for protecting animals from harm, as we know that people can love animals and still harm them (Joy, 2010). There is thus a need for interventions that specifically encourage people to undertake the difficult task of reflecting on their harmful conduct towards outgroup members.

Another reason why we need more interventions to reduce support for ingroup harmdoing is that the effectiveness of a given intervention may depend both on context (Walton & Yeager, 2020) and on the individual differences in psychological needs, motivations, and orientations of the recipients (Halperin & Schori-Eyal, 2020). For example, paradoxical thinking interventions that aim to reduce support for conflict and aggressive policies have been found to be more effective among rightists (Hameiri et al., 2018). These interventions involve presenting individuals with ideas consistent with conflict-supporting beliefs but in exaggerated, amplified or absurd manner, for example, the idea that conflict itself is a good thing for society (Hameiri et al., 2016). These messages are less likely to be immediately rejected by rightists as they do not contradict their beliefs and attitudes, and thus they encourage reflection, paradoxically leading to more moderate standpoints. On the other hand, interventions that provide participants with information inconsistent with conflict-supporting beliefs have proven to be more effective among centrists and leftists, who are more open to such information at the outset (Hameiri et al., 2016). As there is no single intervention that is a magic bullet for everyone, there is value in developing multiple interventions, which tap into a range of psychological pathways, that if used appropriately can reduce support for ingroup harmdoing.

The interventions in this thesis specifically considered the central role of morality in intergroup relations and harmdoing. This thesis aimed to increase understanding of how moral identity, moral reasoning, and moral emotions underlie attitudes towards harmdoing and how to affect these key processes. When evaluating the ingroup's harmful

actions, multiple considerations are weighed against each other. On the one hand, people are motivated to support wrongdoing on the grounds of self-interest and protecting the group's moral-image (Leach et al., 2015; Shalvi et al., 2015). However, people also care deeply about morality (Skitka et al., 2008) and are often reluctant to harm others, including outgroup members (Weisel & Böhm, 2015). The goal of the interventions was to activate and strengthen processes to increase people's concern with their moral values and standards, thereby suppressing the effect of selfish or in-group centric motivations on evaluations of ingroup conduct.

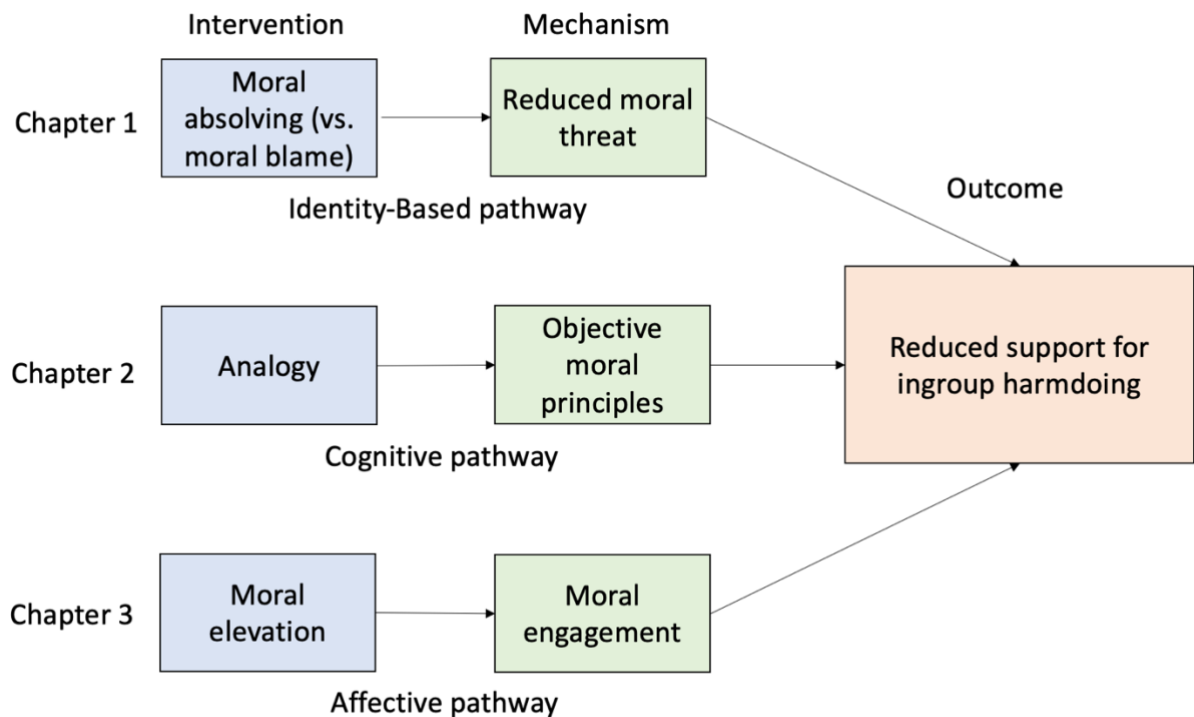
### **Overview of Chapters**

The overarching goal of this dissertation was to develop and test psychological interventions to reduce support for ingroup harmdoing towards outgroup members. Each chapter of this thesis empirically tested a different intervention that aimed to reduce support for harmdoing via different psychological pathways (see Figure 1.2). Each of the interventions sought out ways to stimulate moral motivations to overcome the effects of self- and ingroup-centric bias when considering ingroup harmdoing.

The first intervention aimed to reduce moral identity threat induced by information about ingroup harmdoing by using a morally absolving (vs. morally blaming) frame. Our rationale was that people who receive information about harmdoing, while not being blamed for the harm, would be less defensive, and as such, more open to changing their attitude and behavioral intentions towards harm reduction. The second intervention aimed to facilitate more objective evaluation of ingroup harmdoing, by asking people to consider an analogous case of harmdoing in a remote context where their judgment was not motivated. We reasoned that objective principles made salient by considering remote harmdoing would guide evaluation of similar ingroup committed harmdoing, and that this cognitive process would effectively combat motivated moral reasoning. The third intervention aimed to increase support for harm-alleviating policies via the affective experience of moral engagement. We considered that the emotional state of moral elevation would increase people's engagement with morality and that this would reduce support for harm to outgroup members.

**Figure 1.2**

The multiple paths to reducing support for ingroup harmdoing tested in the thesis



The thesis includes in total 12 empirical studies and makes use of data from 3978 participants. All data was collected online, and participants were either recruited via survey companies, on social media, in public places, and in universities. Below I further describe the rationale of each chapter, the questions that we asked, and brief summaries of the results.

### **Chapter 2: An Absolving Intervention to Increase Support for Veg\*nism (vegan/veganism).**

The studies in the first chapter are joint work with Mor Shnitzer-Akuka and Michal Reifen-Tagar. They explored the effect of presenting information about animal suffering in factory farming, with either a blaming frame or an absolving frame, on attitudes and intentions towards animal-product consumption. Interventions to reduce meat consumption often involve providing information about animal suffering and cruelty experienced in factory farming (Mathur et al., 2021). Knowledge about animal suffering is a key component leading to attitudinal and behavioral change towards reduced meat eating (Palomo-Vélez et al., 2018). In this work, we were interested in exploring how to frame information in a way that would reduce moral identity threat, and correspondingly



defensiveness, making omnivores more receptive to information about animal suffering and more willing to change.

People are highly motivated to view themselves as being good (Barkan et al., 2013). Meat-eating can threaten the perception of the self as good and moral, as eating meat involves harm to animals, and harm to others, including animals, is something most people feel uncomfortable about (Bastian & Loughnan, 2017). A large body of research shows that omnivores can be defensive about meat-eating (Loughnan et al., 2010). There is work showing that when meat-eaters feel judged by vegetarians they become defensive, by derogating vegetarians (Minson & Monin, 2012) and animals (Rothgerber, 2014). We therefore considered that when information about harm was presented in a way that could be perceived as morally blaming, as is often the case in persuasion campaigns, it could lead to defensiveness and entrench attitudes supportive of harm. Absolving people of blame, however, may provide people with the space to consider the information presented, as they would be less preoccupied with defending their moral image.

We ran three studies in Israel to compare the effects of absolving and blaming frames when providing people with information about animal suffering in factory farming. The blaming frame condition involved informing people that they were aware of the cruelty of the meat-industry and thus they were responsible for it. Absolving involved informing people that they were not aware of the full extent of the cruelty, suggesting that the meat industry was hiding information, thus displacing responsibility for the harmdoing to an external source. In two of three studies we also included a neutral control condition, in which the same information about harm to animals was presented without blaming or absolving information. In two studies out of three studies we found that raising awareness of animal suffering using a blaming frame increased the use of defensive strategies, leading to lower vegan/vegetarian supporting attitudes and behavioral intentions. A mini-meta-analysis across the three studies confirmed that blaming was less effective than absolving for strengthening attitudes and intentions towards harm reduction.

### **Chapter 3: An Analogy-Based Intervention to Increase Acknowledgment of Ingroup Harmdoing**

The studies in the second chapter are joint work with Eran Halperin, Thomas Kessler, Noa Shori-Eyal, and Michal Reifen-Tagar. Our goal was to develop and test an intervention to encourage more objective evaluation of ingroup-committed harm in the context of intractable conflict. We hypothesized that ingroup members would be more

likely to acknowledge ingroup-committed harmdoing after being exposed to similar cases of harmdoing in a distant context. The motivation for this is that individuals selectively disengage their moral principles in particular contexts in which they are motivated to justify a harmful action, but this does not tend to generalize to other similar contexts. We therefore considered that if people were to evaluate harmdoing in a distant context, in which they had no motivation to justify the harm described, then their objective moral principles would become salient, and these principles would then inform evaluation of ingroup committed harmdoing. The effect of motivated reasoning, that would normally shape evaluation of ingroup conduct in the context of conflict, may be attenuated by moral principles that became salient after contemplating harmdoing in a remote context.

We conducted six studies in the context of the intractable Israeli-Palestinian conflict to test the effectiveness of this intervention and to understand why, and under what conditions, exposure to an analogous case of harmdoing in a remote context is effective in leading to increased acknowledgment of an ingroup transgression. Specifically, we developed an intervention aimed at reducing motivated reasoning among Jewish-Israelis regarding a case of home demolition carried out by Israel towards Palestinian civilians whose relative had committed a deadly terrorist attack in Israel. Our intervention involved asking Jewish-Israeli participants to morally evaluate a case of collective punishment in a remote context where their judgment would not be motivated, in a bid to make salient the objective moral principle that collective punishment aimed at family members is wrong, before then evaluating the morality of ingroup-committed collective punishment. We hypothesized that the salient moral principles would then be applied to evaluation of ingroup-committed harmdoing, attenuating the effect of biased reasoning, resulting in a more critical stance towards the ingroup-committed harm.

In Study 1, we found that after considering (vs. not considering) a case of home demolition in a remote and unrelated context, ingroup members would be more critical of ingroup harmdoing. In Study 2, we ruled out that the observed effect was solely due to a spill over in empathy as a result of reading about human suffering. We did this by exposing participants to empathy-inducing information unrelated to a moral transgression and found that this did not affect moral judgment of ingroup harmdoing. In Study 3, we found that exposure to a non-analogous moral transgression was not sufficient to increase acknowledgment of ingroup harmdoing, indicating that an analogy to increase critical judgment of ingroup harmdoing is likely to be most effective when the remote case depicts a transgression in the same domain. In Study 4, we found that the analogy was

effective even if anticipated, by presenting the cases of remote and ingroup harmdoing side-by-side. Participants who were exposed to the remote case of harmdoing alongside the case of ingroup harmdoing, could have condoned both and remained consistent, but they did not. This suggests that the desire to be consistent is unlikely to be the sole driving force behind the effect of the intervention, and instead suggests that the intervention changed the way people thought about collective punishment. In Study 5 we found that the remote case of harmdoing led participants to acknowledge ingroup harmdoing even when it was more extreme than that of ingroup harmdoing, suggesting that the analogy was not very sensitive to differences in extremity between the harmdoing in the remote and target contexts. We finally tested the hypothesized mechanism in Study 6 and found that the intervention was effective due to the remote case of harmdoing leading participants to be more opposed to collective punishment of family members as a general principle, leading to a more critical stance of ingroup-committed collective punishment targeting relatives.

#### **Chapter 4: A Moral Elevation Intervention to Increase Support for Humanitarian Policies**

The studies in this chapter are joint work with Eran Halperin, Ziv Elron, and Michal Reifen-Tagar. The goal of this project was to investigate the effects of the experience of moral elevation on concern for outgroup suffering and conflict-related policy support. Moral elevation is an emotional experience that is elicited after witnessing acts of extreme kindness. The term was coined by Jonathan Haidt and was introduced as a topic in psychological research in 2000 (Haidt, 2000). It is still a relatively understudied emotional experience, and this was the first work that we know of to test the effects of moral elevation on changing policy support, in this case support of outgroup-related policies, in the context of intractable conflict.

The emotional experience of elevation involves feelings moved, inspired, and is associated with certain physiological experiences, such as a warm feeling in the chest, a lump in the throat, and tears in the eyes (Haidt, 2003). It is an approach-oriented emotion and promotes the desire to actively help others, even when helping is difficult (Van de Vyver & Abrams, 2017). Moral elevation has been found to motivate pro-social behavior. We tested whether the positive effects of moral elevation extend to the context of intractable intergroup conflict, by examining whether moral elevation increases support for outgroup-favorable policies. Like our analogy-based intervention, this intervention aimed to circumvent defensive responses that may occur when thinking about ingroup

harm or outgroup suffering directly. Whereas the analogy-based intervention did this by recruiting moral principles, the moral elevation intervention did this by increasing concern for others. Our moral elevation intervention involved watching a heart-warming video clip depicting a man doing a series of kind acts. This was a non-aversive and indirect manipulation and the elevating stimuli induced a positive, elevating, experience.

We ran three studies to determine the effect of moral elevation on policy support related to outgroup members in the context of the Israeli-Palestinian conflict, with Jewish-Israeli participants. Each of these studies involved testing the effects of moral elevation, against a positive emotion control condition, amusement, and in Study 2, an additional neutral control condition. Participants were randomly assigned to watch either a video clip that depicted a Thai man doing a series of kind acts (moral elevation condition) or a video that depicted a Japanese comedian singing and doing a silly dance (amusement condition). In Study 2, we also included a neutral control condition in which participants watched a video about different hairstyles, that was not supposed to elicit any particular emotional state. Overall, we found that participants in the moral elevation conditions, compared with those in the amusement or control condition, had greater support for humanitarian policies, but support for political concessions remained unchanged. In Studies 2 and 3 we tested increased moral concern for others as the mechanism that explained the effect of elevation on support for humanitarian policies. We found support for a model in which elevation led to increased support for humanitarian aid towards Palestinians, via increased concern for others. Interestingly, elevation did not reliably reduce prejudice towards Palestinians. To the best of our knowledge, this research is the first to demonstrate that moral elevation can play an important role in the context of intractable conflict by increasing support for alleviating outgroup suffering. Importantly, it also suggests that the effect of moral elevation is limited in that it does not extend to increasing support for political compromises.

## **Chapter 2: The Cost of Attributing Moral Blame: Defensiveness and Resistance to Change when Raising Awareness to Animal Suffering in Factory Farming**

Activists for social change often work to raise awareness of the harm caused by current practices or policies, in order to influence people's attitudes. For example, to reduce support for war, anti-war activists often draw attention to the harm innocent civilians experience. Similarly, while trying to increase opposition to abortion, pro-life campaigners often emphasize harm to the fetus. Indeed, researchers have suggested that increasing awareness of harm is a critical first step towards increasing moral concern for a cause and fostering change (Jasper & Poulsen, 1995; McDonald, 2000; Snow & Benford, 1988). However, while trying to raise awareness many campaigns simultaneously, and possibly inadvertently, send an additional message of moral blame, which we suggest may undermine their goals.

Animal rights campaigns are a case in point: when groups draw attention to the harm experienced by animals in factory farming, they often do so in a way that directly or implicitly blames meat and dairy eaters for this suffering (Freeman, 2010). For example, in their campaign against eating eggs, animal rights group, Vegan's International Voice for Animals (VIVA!) showed an image of chicks crammed into a blender beside the slogan "the little victims of your morning fry up (VIVA!, n.d.)." In their video "Chew on it," animal rights group, People for the Ethical Treatment of Animals (PETA) listed reasons for veganism including "because it takes a small person to beat a defenseless animal and an even smaller person to eat one" (PETA, 2010). Blame can also be implied, rather than overt. For example, the frequently used slogan "meat is murder" aims to sensitize people to the victims of the meat industry by employing a term usually reserved for human targets. The message simultaneously suggests that meat eaters are complicit in murder. Although such messages are meant to raise awareness of the suffering of animals, they also attribute moral blame to the recipient of the message.

Vesting information with moral blame implies a negative evaluation of a person's underlying character (Pizarro & Tannenbaum, 2011) and therefore is likely to be threatening their moral self-image. Most people perceive themselves as highly moral even when confronted with information to the contrary (Allison et al., 1989; Epley et al., 2000) and will use a wide range of strategies to maintain their moral self-image (Bandura et al.,

2002). When people are confronted their own immorality, they can experience reduced feelings of self-worth, often leading to self-defensive motivations (Gausel & Leach, 2011). Indeed, research in various fields suggests that when people's moral self-image is threatened, they often become defensive (Barkan et al., 2013; Mazar et al., 2008). Work specifically on the psychology of meat-eating has found that after imagining being judged by vegetarians, omnivores were more likely to then derogate vegetarians (Minson & Monin, 2012). Another study in this domain found that omnivore participants diverted blame for the suffering of animals to mass production, and minimized the role of mass consumption, when asked to discuss their attitudes towards meat eating (Graça et al., 2014). Additionally, work on intergroup relations has found that when people's groups are blamed for harming others, they often respond defensively, such as by justifying the social hierarchy from which they are benefitting (Saguy et al., 2013). Similarly, research focusing on relationships between family members and colleagues, found that the vast majority of people respond to accusations with either denial or justification (Dersley & Wootton, 2000). In light of this body of research, we suggest that veg\*n (vegan or vegetarian) campaigns that introduce information about animal suffering using a blaming frame, risk message recipients feeling morally attacked and becoming defensive and correspondingly resistant to reconsidering their attitudes and behavioral intentions.

People may utilize multiple defense strategies after being blamed for the suffering of animals in the industry. One such strategy is bolstering their belief that humans are superior to animals. Research on the psychology of eating animals, shows that a strong belief that humans are superior to animals helps justify meat consumption (Dhont & Hodson, 2014). Believing that animals are considerably inferior to humans not only justifies past harmdoing towards animals, but also enables people to continue to benefit from industries that harm animals, without regarding it as wrong (Vollum et al., 2004). Another way that people protect their moral self-image while justifying their behavior is by asserting that the harmdoing in question is not a moral matter (Rozin et al., 1997) and morally disengaging from the issue (Graça et al., 2016). People vary in the extent to which they attribute moral worth to animals (Caviola et al., 2019; Dhont & Hodson, 2014) and many do not view the treatment of animals as a moral issue, but rather consider the practical and material value of animals (Kellert, 1980). Withdrawing moral concern for animals may be an effective way to reduce discomfort regarding meat-eating (Loughnan et al., 2010; Loughnan & Piazza, 2018). If omnivores believe that the harm animals experience in factory farming is not a moral issue, then there is no moral

transgression for which they can be held responsible, and therefore their moral self-image can remain intact.

To test our expectation that raising awareness of animal suffering using blaming frames will lead to defensiveness, and in turn, resistance to change, we juxtapose blaming frames with absolving frames that relieve message-recipients of blame. Absolving involves informing people about harm, while reducing their blameworthiness by placing responsibility for harmdoing on an external source. Animal rights groups sometimes utilize this strategy by attributing blame to factory farms instead of consumers, claiming that the factory farms perpetuate and deliberately conceal cruelty from the public (Freeman, 2010). Absolving messages suggest that omnivores are not fully aware of the entailed cruelty, and therefore cannot be held responsible for it. Importantly, absolving does not justify the harm done to animals nor does it suggest that omnivores are less responsible for their future harmful behavior; it simply suggests that individuals are not to blame for their past involvement in the harmdoing. Compared with blaming frames, absolving messages should be less threatening to people's moral image as they do not entail negative attributions to the self (Pizarro & Tannenbaum, 2011). We therefore hypothesize that recipients who receive information about suffering in an absolving manner may be less defensive, and as such, more open to changing their attitude and behavioral intentions. Even though veg\*nism campaigns commonly use both blaming and absolving strategies (Freeman, 2010), to the best of our knowledge, the effects of vesting persuasion attempts in these frames have yet to be empirically tested.

### **Overview of Studies**

We conducted three experimental studies to test our hypothesis that introducing information about harm to animals in factory farming using blaming (vs. absolving) frames increases defensiveness, and thereby reduces veg\*n supporting attitudes and behavioral intentions. In Study 1, we tested whether being blamed versus being absolved led to increased defensiveness, and reduced support for veg\*nism as expressed in both attitudes and behavioral intentions. In Studies 2 and 3, we included an additional control condition with a neutral frame to test whether observed effects were due to the negative effect of being blamed or due to the positive effect of being absolved when presented with information about harm. Finally, we conducted a mini meta-analysis to test the robustness of our findings across our three studies.

In all studies, participants were told that the study was about information processing and memory to reduce demand characteristics. Furthermore, they were

informed that they would be presented with an article about one of several topics including the environment, meat-eating, electric bicycles, abortion, or refugees, in order to not only attract participants who were inherently interested in veg\*nism. Studies 2 and 3 were preregistered at the Open Science Framework. For each study, the minimal sample size was determined prior to data collection.

All studies were conducted in Israel where there is high meat and dairy consumption (Ministry of Agriculture & Rural Development, 2018; OECD, 2020), like in other developed countries (Stoll-Kleemann & Schmidt, 2017). While the Israeli vegan animal advocacy movement has grown over the last decade (Gvion, 2020) and the country has a relatively high number of veg\*ns, the vast majority of the population (approximately 87%) are omnivores (T. Cohen, 2015). Israel currently ranks fourth in meat consumption per capita among OECD countries, behind only the United States, Brazil, and Argentina (OECD, 2020). The trend in meat consumption per capita in Israel has remained relatively stable over the past decade, and beef consumption has actually increased slightly in the past few years (OECD, 2020). Altogether, similar to most people in the developed world, most Israelis eat meat and dairy, and in large quantities.

### **Study 1**

The goal of Study 1 was to test our hypothesis that using blame frames when presenting people with information about harm to animals in factory farming would lead to greater defensiveness and therefore would reduce veg\*n supporting attitudes and behavioral intentions. We tested the mediating role of three defense mechanisms: human superiority beliefs, demoralization, and the 4Ns, which represent common rationalization people use to justify meat-eating. Of note, moralization of veg\*nism can also be conceived of as an aspect of attitudes toward veg\*nism (as we originally considered). Analyses using this item as part of the positive attitudes measure do not change the pattern or significance of results for this outcome variable, and are included in supplementary materials. Also, see supplementary materials for a description of the images included with the text.

### **Method**

**Participants and procedure.** The Interdisciplinary Center Herzliya granted ethics approval for the studies. Written consent was obtained for all participants. We recruited 390 Israeli participants via social media. We determined the sample size based on a power analysis for independent sample t-tests using G\*Power (Faul et al., 2007). It



showed that a minimum of 260 participants were required, if this study was to have a power of 0.80,  $\alpha = .05$ , and a small/medium effect size of  $d = .35$ . More participants completed the online study than expected in the time it was available online. Those who did not identify as omnivores were dropped (51) and those who failed an attention check (38) were dropped prior to analysis. This resulted in a final sample of 301 participants (age:  $M = 30.7$ ,  $SD = 10$ , gender: men = 119, women = 182). Participants were randomly assigned to read flyers in Hebrew about the suffering of animals in factory farming. The articles read in the blame and absolve conditions were identical in terms of format and information but differed in the title and opening sentences. In the blame condition, the flyer title was “Eating meat is a violent act” and the opening sentences suggested that readers were aware and therefore responsible for animal suffering (e.g., “It is well known that by consuming meat you support this industry”). In the absolve condition, the title was “What does the meat industry have to hide?” and the opening sentences reflected the idea that the industry conceals information from the public, suggesting that the public is less aware and thus less responsible for animal suffering (e.g., “Most barns and chicken coops are hidden from the public for fear of damaging the industry’s profits”). Full manipulation texts can be found in supplementary materials. Following these opening sentences, all participants were exposed to the same text about the suffering of animals in factory farming. Next, in order to test whether participants across conditions paid equal attention to the information about harm to animals, or alternatively, whether blamed participants engaged less or absorbed less information about animal suffering, participants responded to memory questions assessing the degree of attention they paid to the information in the text. Participants then completed a short survey to measure their defensiveness, attitudes toward veg\*nism, and behavioral intentions. At the end of the survey, participants were asked whether they were vegan, vegetarian, or omnivore.

**Measures.** All items for measures in all studies can be found in supplementary materials.

**Memory of information.** Participants were asked seven multiple choice questions to test the attention paid to the facts about harm to animals presented in the article (e.g., the natural lifespan of a cow). Participants were given one point for every correct answer, which was then summed to create a memory score for each person.

**Defensiveness.** Defensiveness was measured by three separate variables. First, human superiority beliefs were measured using four items from Dhont and Hodson’s human supremacy beliefs (Dhont & Hodson, 2014) scale on a 1(not at all)—7(very much)

scale (e.g., “Animals are inferior to humans,”  $\alpha = .71$ ). Second, demoralization of meat consumption was measured with the following item “To what extent is veganism a moral question, in your opinion?” on a scale of 1 (not at all)-10 (very much). This item was then reverse-coded to capture demoralization. We used the 16-item 4N scale (Piazza et al., 2015) to measure rationalizations towards meat-eating, asking people to what extent that they thought eating meat is natural, necessary, normal, and nice ( $\alpha = .93$ ).

**Positive attitudes towards veg\*nism.** Participants answered two questions on a 1 (not at all) -10 (very much) scale (“To what extent do you support veganism?”,  $\alpha = .83$ ).

**Positive behavioral intentions towards veg\*nism.** On a 1 (not at all)—10 (very much) scale participants responded to five items (e.g., “Are you willing to try meatless Monday?”  $\alpha = .87$ ).

**Demographics.** Participants reported their gender, age, religiosity, and political ideology.

## Results and Discussion

To test our hypotheses, we conducted two-tailed independent sample t-tests, with condition as the independent variable and measures of defensiveness, positive attitudes, and positive behavioral intentions towards veg\*nism as the outcome variables. We then tested whether the effects on attitudes and behavioral intentions were mediated by defensiveness.

We first tested the effects of condition on our hypothesized mediators. Participants in the blame condition scored higher in human superiority beliefs ( $M = 3.88$ ,  $SD = 1.37$ ), compared with those in the absolve condition ( $M = 3.52$ ,  $SD = 1.38$ ),  $t(299) = 2.25$ ,  $p = .025$ ,  $d = 0.26$ . Those in the blame condition also demoralized veg\*nism more ( $M = 5.73$ ,  $SD = 3.13$ ) than those in the absolve condition ( $M = 4.78$ ,  $SD = 2.82$ ),  $t(299) = 2.75$ ,  $p = .006$ ,  $d = .32$ . There was no significant difference in how much participants rationalized meat-eating using the 4Ns measure (blame condition:  $M = 4.17$ ,  $SD = 1.23$ ), absolve condition ( $M = 4.07$ ,  $SD = 1.35$ ),  $t(299) = .64$ ,  $p = .521$ ,  $d = .08$ ).

We then tested the effect of condition on the outcome variables. As expected, found that participants in the blame condition supported veg\*nism less ( $M = 4.16$ ,  $SD = 2.26$ ), than those in the absolve condition ( $M = 5.00$ ,  $SD = 2.38$ ),  $t(299) = 3.07$ ,  $p = .002$ ,  $d = 0.36$ . Participants in the blame condition also had less positive behavioral

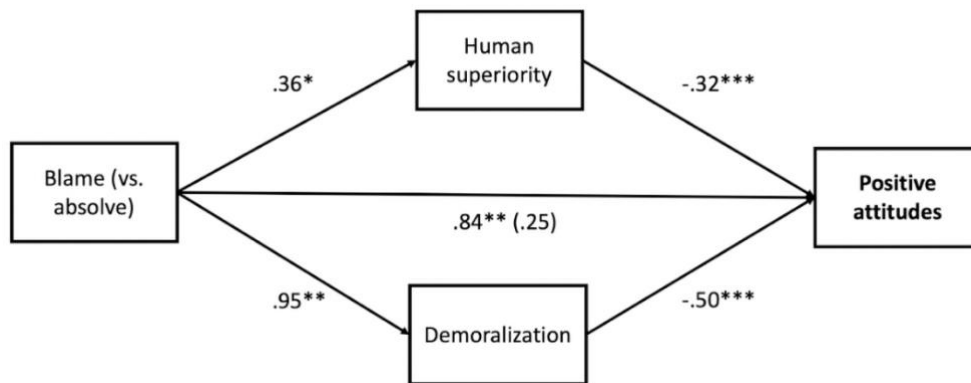
intentions towards veg\*nism ( $M = 3.77$   $SD = 2.30$ ), compared with those in the absolve condition ( $M = 4.65$ ,  $SD = 2.37$ ),  $t(299) = 3.24$ ,  $p = .001$ ,  $d = 0.38$ .

**Defensiveness as a mediator of the impact of frames on attitudes and behavioral intentions.** To test whether the defense mechanisms mediated the relationship first, between condition and attitudes, and second, between condition and behavioral intentions, we ran further analysis using Hayes’ PROCESS (Model 4) bootstrapping command with 5,000 iterations for SPSS (Hayes, 2013). We conducted parallel mediation analyses to test the mediating role of both human superiority beliefs and the demoralization of veg\*nism. We tested two mediation models—one with positive attitudes towards veg\*nism as the outcome variable, and one with positive behavioral intentions towards veg\*nism as the outcome variable.

**Attitudes.** The mediation analysis revealed that the relative indirect effect of blaming (vs. absolving) on positive attitudes towards veg\*nism via human superiority beliefs (effect =  $-.12$ ,  $SE = .06$ , 95% CI:  $(-.25, -.01)$ ) and via demoralization (effect =  $-.47$ ,  $SE = .18$ , 95% CI:  $(-.84, -.13)$ ) was significant (see Figure 2.1)

**Figure 2.1**

Model testing the effect of condition (blame vs. absolve) on positive attitudes towards veg\*nism through human superiority beliefs and demoralization for Study 1.



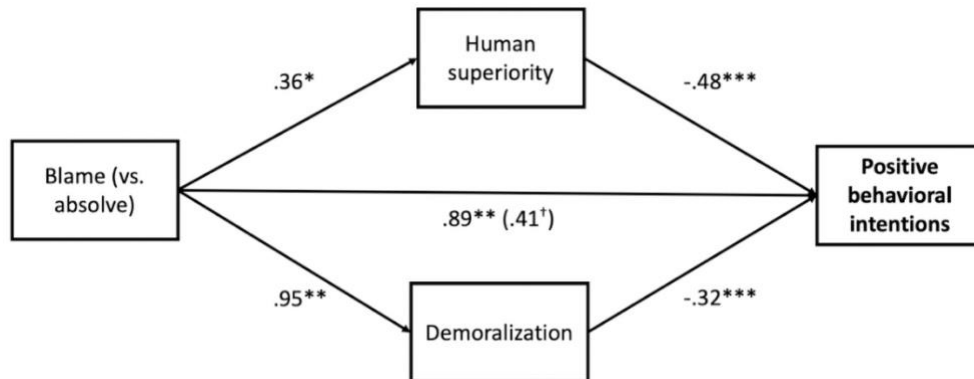
Note. Unstandardized coefficients displayed. \* $p < .05$ , \*\*  $p < .01$ , \*\*\*,  $p < .001$ , two-tailed tests.

**Behavioral intentions.** We then tested whether being blamed (vs. absolved) indirectly influenced behavioral intentions towards veg\*nism through human superiority beliefs and demoralization. Again, the indirect effect of condition via human superiority beliefs (effect =  $-.17$ ,  $SE = .08$ , 95% CI:  $(-.35, -.02)$ ) and via demoralization (effect =  $-.30$ ,  $SE = .12$ , 95% CI:  $(-.55, -.08)$ ) was significant (see Figure 2.2) These results provide

support for models in which defensive responses explain the relationship between being blamed (vs. being absolved) and attitudes and behavioral intentions towards veg\*nism.

**Figure 2.2**

Model testing the effect of condition (blame vs. absolve) on positive behavioral intentions towards veg\*nism through human superiority beliefs and demoralization for Study 1



Note. Unstandardized coefficients displayed. \*p < .05, \*\* p < .01, \*\*\*, p < .001, two-tailed tests.

Finally, we tested whether there was a difference in how much information participants in each condition remembered about the text. There were no significant differences in the extent participants remembered information about harm presented between conditions (blame condition: M = 5.41, SD = 1.72; absolve condition: M = 5.57, SD = 1.48, p = .118, t(299) = .83, p = .409).

Study 1 provided strong initial support for the hypothesis that blaming is less effective than absolving when trying to persuade people to reduce harmdoing. Specifically, we found that being blamed, versus absolved, when presented with information about harm to animals led to increased defensiveness through human superiority beliefs and demoralization, leading to less positive attitudes and behavioral intentions in support of veg\*nism. Surprisingly, we found that being blamed, versus absolved, did not lead to more rationalization of meat-eating in line with the 4Ns. Interestingly, we found no significant difference between the extent participants remembered information about harm to animals between conditions, suggesting that differences in attitudes and behavioral intentions are not due to reduced attention to the information about harm.

## Study 2

The goal of Study 2 was to test the replicability of the findings, and extend our understanding about whether observed differences between conditions in Study 1 were driven by the negative effects of blame or the positive effects of being absolved. Thus, we included a control condition, in which participants were presented with the same information about factory farming, but with a neutral frame. We also added two attention check questions to the study, to check participants were reading the survey questions.

This study was preregistered

([https://osf.io/u8ezn/?view\\_only=f54242ef509344baa7b04161348256a2](https://osf.io/u8ezn/?view_only=f54242ef509344baa7b04161348256a2)).

Furthermore, we considered that another way that people may respond defensively is by holding weaker efficacy beliefs about their capacity to change their diet. Indeed, research shows that claims of low efficacy, that is, one's perceived inability to change, is a common defense mechanism (Bandura, 1977). In the domain of meat-eating, it has been found that having greater confidence in one's ability to stick to one's diet is positively associated with adherence to a veg\*n diet (Cruwys et al., 2020). Moreover, it has been suggested that perceiving less choice in one's ability to reduce meat consumption may be used as a justification for animal-product consumption, while avoiding moral dissonance (Rothgerber, 2014). Other work has additionally found that individuals with low self-efficacy beliefs about their ability to change their diet are less affected by persuasive message aimed at reducing meat consumption (Bertolotti et al., 2020). We, therefore, measured efficacy beliefs as an exploratory variable, and considered that reduced efficacy beliefs may be an additional defense mechanism utilized by those who are blamed. In this study, we did not measure the 4Ns.

### Method

**Participants and procedure.** We recruited 732 participants via an online survey company. As we were able to recruit a large sample via the company, we conducted our power calculation based on the smallest effect size in Study 1, for a one-way ANOVA. This showed that 621 participants were required as a minimum, if this study was to have a power of 0.80, alpha = .05, and effect size of  $d = .25$ . To allow for drop out, we aimed to recruit 700 participants, and an extra 32 were collected by the company. Those who failed to recall the name of the article were automatically excluded from participation. We dropped participants who did not identify as omnivore (42) and for failing both attention

checks (1). This resulted in a final sample of 689 participants (age:  $M = 39.16$ ,  $SD = 13.02$ , gender: men = 342, women = 347).

The procedure was identical to that of Study 1, except for the additional control condition. The control condition was intended to be neutral. The text was entitled “Consumption of meat in Israel: the facts” and neither blamed nor absolved participants for animal suffering. The opening sentences contained neutral information about factory farming (e.g. “Today, most barns and chicken coops are located in a variety of places in the country”) in order to maintain consistent text format across conditions. Following the title and opening sentences, all information presented in the flyer was identical across conditions.

**Measures.** As in Study 1, we measured memory of information, positive attitudes towards veg\*nism ( $\alpha = .88$ ), positive behavioral intentions towards veg\*nism ( $\alpha = .90$ ), participants’ defensiveness with separate measures—demoralization and beliefs about human superiority over animals ( $\alpha = .71$ ), and demographics. We further added a manipulation check to assess the extent to which participants thought that the flyers were blaming and a measure of efficacy beliefs about controlling one’s consumption of animal products as an additional defense mechanism.

**Manipulation check.** Participants were asked to what extent they thought the text that they read was blaming, offensive, and respectful (reverse coded),  $\alpha = .39$ . As the Cronbach’s alpha was very low, we used the item asking participants specifically how blaming they thought the article was as the manipulation check as it most precisely captured the element of blame that we were aiming to manipulate.

**Efficacy beliefs.** Four efficacy items assessed the extent to which participants believed they could take steps towards veg\*nism on a scale of 1 (not at all)– 7 (very much) (e.g. “If I wanted, I could become vegetarian”)  $\alpha = .76$ .

## **Results and Discussion**

We conducted planned comparisons to assess differences between conditions. As our hypotheses were directional, we used one-tailed tests (as preregistered) in our analysis. We first checked to see whether the information flyer in the blame condition was seen as more blaming than that in the absolve condition. Surprisingly, we found no significant differences between conditions ( $p = 0.22$ ), suggesting that participants were not significantly affected by the manipulation. We also found no significant differences between conditions for any of variables, and exploratory tests for interactions revealed

that none of the demographic variables served as a moderator. As there were no significant differences between conditions, the results of Study 1 were not replicated (descriptive statistics for Study 2 are presented in supplementary materials).

The different pattern of results between Studies 1 and 2 may be due to differences in sample characteristics. There were difference in age, gender, and ideological orientation between the samples. Those in Study 1 were significantly younger ( $M = 30.7$  years), compared with those in Study 2 ( $M = 39.2$  years). Participants in Study 1 were also mostly women, whereas in Study 2 there were even numbers of women and men. There were also equal numbers of politically liberal and conservative participants in Study 1, while in Study 2 there were twice the number of conservatives. Research findings show that younger people (Cooney, 2014), women (Love & Sulikowski, 2018; Rosenfeld, 2018), and liberals (Dhont & Hodson, 2014) are more likely to be veg\*n and are more receptive to animal rights campaigns. It should be noted, however, that while there were substantial differences in the study samples, the effect of blame on our outcome variables was not significantly moderated by age, gender, nor political orientation. As well as the differences between sample demographics, participants in this study were recruited by a survey company, received payment, and likely participate in a large volume of studies, unlike those in Study 1, who were recruited on social media. Altogether, it may be that those in Study 2 were inherently less open to dietary change towards veg\*nism, paid less attention to the manipulation materials, and were therefore less influenced by them.

### **Manipulation Check: Pilot Study**

Given the inconsistency between the strong effects in Study 1 and the null effects in Study 2, we decided to re-run the study with participants recruited via social media like in Study 1. Prior to this, we developed and piloted a revised manipulation check. We aimed to construct a measure with higher reliability and to verify that the blaming text was indeed perceived as more blaming than the absolving text.

A power analysis showed that 128 participants were required if the pilot study was to have a power of 0.80,  $\alpha = .05$ , and a medium effect size of  $d = .5$ . We recruited primarily students on social media. To allow for drop out, we recruited 182 participants. After dropping those who did not identify as omnivore (20) and those who failed the attention check (29), 133 participants remained ( $age = 24.83$ ,  $SD = 4.67$ , gender: men = 39, women = 94).

Participants were randomly assigned to read the blaming or absolving text. They were then asked to rate the extent to which they felt that the text was “blaming”; “judgmental”; “hostile”; “derogatory”; and “refers to meat-eaters as immoral” on a scale of 1 (not at all)– 7 (very much). This manipulation check scale had high reliability ( $\alpha = .84$ ). Furthermore, the blaming text was perceived as significantly more blaming ( $M = 4.70$ ,  $SD = 1.43$ ) than the absolving text  $M = 3.98$ ,  $SD = 1.40$ ,  $p = .002$ , one-tailed test,  $d = .51$ . This pilot study confirmed that the text frames are meaningfully different in the extent to which they are perceived as blaming.

### Study 3

The goal of Study 3, was to retest our hypothesis. In addition, we added a measure of reactance as an expression of defensiveness. Reactance is experienced when people feel like they are being told what to do. Reactance generally leads to opposition as people try to assert their autonomy by defying the course of action suggested (Brehm, 1966; Wicklund, 1974). We hypothesized that being blamed, versus absolved, would lead to more reactance and therefore would also play a role in leading to less positive attitudes and behavioral intentions in support of veg\*nism. This study was preregistered ([https://osf.io/rwb5g/?view\\_only=c74dc5b9370842afb46ae92e1327a2b7](https://osf.io/rwb5g/?view_only=c74dc5b9370842afb46ae92e1327a2b7)).

### Method

**Participants and procedure.** We recruited 389 participants via social media (in different online groups than earlier studies) and on a college campus. Based on the same criteria as in Study 1, a power analysis for a one-way ANOVA showed that 318 participants were required. Those who failed to remember the name of the article of the manipulation text were automatically excluded from participating in the survey. We dropped participants who did not identify as omnivore (71) and participants who failed both attention checks (2). This left us with a final sample size of 316 (age:  $M = 30$ ,  $SD = 8.64$ , gender: men = 97, women = 219).

The procedure followed the same format as Study 2. Participants were randomly assigned to read about factory farming with either a blaming, absolving, or neutral frame, before answering a short survey.

**Measures.** As in previous studies, we measured memory of information, attitudes towards veg\*nism ( $\alpha = .88$ ), and positive behavioral intentions towards veg\*nism ( $\alpha = .85$ ), as well as defensiveness with measures of demoralization and human superiority beliefs ( $\alpha = .82$ ); and as in study 2, we included a measure of efficacy beliefs ( $\alpha = .79$ )



and a measure of reactance as exploratory defense mechanisms ( $\alpha = .93$ ). We added one item to the positive attitudes towards veg\*nism measure. We also added two items to the human superiority measure, thus using the full scale of Dhont & Hodson (2014).

Manipulation check. We included the piloted manipulation check at the end of the study,  $\alpha = .89$ .

Reactance. We adapted items from a Dillard and Shen's reactance measure (Dillard & Shen, 2005). Participants rated their agreement with the following statements regarding the flyer on a scale of 1 (not at all)– 7 (very much), (e.g., "I feel angry that this message tried to pressure me,"  $\alpha = .89$ ).

## Results and Discussion

We conducted planned comparisons between the absolve and blame conditions, and then compared each with the control condition. As in Study 2, since our hypotheses were directional, we used one-tailed tests (as preregistered). While not significant, there was a trend suggesting that the blaming text was seen as more blaming ( $M = 4.33$ ,  $SD = 1.71$ ) than the absolving text ( $M = 3.96$ ,  $SD = 1.68$ ),  $t(313) = 1.53$ ,  $p = .063$ ,  $d = .22$ . There was also a trend, albeit weaker, suggesting that the blaming text was seen as more blaming than that neutral text in the control condition ( $M = 4.01$ ,  $SD = 1.72$ ),  $t(313) = 1.33$ ,  $p = .093$ ,  $d = .19$ . There was no difference in how blaming the absolving flyer and the neutral flyer were perceived to be. As in Study 1, there was no significant difference between any of the conditions on memory of information about harm to animals, again suggesting that participants paid similar attention to the texts, across condition.

We then tested the effect of condition on the defense mechanisms. After being blamed, participants were more likely to demoralize veganism ( $M = 5.95$ ,  $SD = 2.99$ ), compared with after being absolved ( $M = 5.08$ ,  $SD = 3.17$ ),  $t(313) = 1.95$ ,  $p = .026$ ,  $d = .28$ . There was a trend showing that those in the blame condition demoralized veganism more than those in the control condition ( $M = 5.32$ ,  $SD = 3.18$ ),  $t(313) = 1.44$ ,  $p = .077$ ,  $d = .20$ . Demoralization did not differ between the absolve and control conditions. Unlike in our first study, there was no significant difference in human superiority beliefs between any of the conditions. Those in the blame condition had significantly lower efficacy beliefs about their ability to reduce meat and dairy consumption ( $M = 4.38$ ,  $SD = 1.46$ ) compared with those who were absolved of blame ( $M = 4.91$ ,  $SD = 1.46$ ),  $t(313) = 2.46$ ,  $p = .007$ ,  $d = .36$ . There was a trend showing that those who were blamed had less self-efficacy than those in the control condition ( $M = 4.72$ ,  $SD = 1.58$ ),  $t(313) = 1.60$ ,  $p =$

.055,  $d = .22$ . There was no difference between the absolve and control conditions for efficacy. Finally, those who were blamed expressed more reactance against the message ( $M = 3.04$ ,  $SD = 1.80$ ) compared with those who were absolved ( $M = 2.54$ ,  $SD = 1.64$ ),  $t(313) = 1.99$ ,  $p = .024$ ,  $d = .29$ . There was no difference in reactance between the blame and control condition. There was a trend, however, showing that reactance was lower for those in the absolve condition than those in the control condition ( $M = 2.88$ ,  $SD = 1.85$ ),  $t(313) = 1.44$ ,  $p = .076$ ,  $d = .19$ .

We next tested the effect of blame on our outcome variables. Those who were blamed had significantly less positive attitudes towards veg\*nism ( $M = 4.56$ ,  $SD = 2.34$ ) compared with those who were absolved ( $M = 5.22$ ,  $SD = 2.64$ ),  $t(313) = 1.88$ ,  $p = .031$ ,  $d = .26$ , replicating the results of Study 1. There was a trend showing that those in the blame condition had less positive attitudes than those in the control condition ( $M = 5.03$ ,  $SD = 2.48$ ),  $t(313) = 1.35$ ,  $p = .089$ ,  $d = .02$ . There was no significant difference in attitudes between the absolve and control conditions.

Those in the blame condition had significantly less behavioral intentions in support of veg\*nism ( $M = 3.87$ ,  $SD = 2.20$ ) compared with those in the absolve condition ( $M = 4.67$ ,  $SD = 2.48$ ),  $t(313) = 2.44$ ,  $p = .008$ ,  $d = .34$ , again replicating the results of our first study. There was also a significant difference between the blame and control conditions, with those in the control condition expressing more positive behavioral intentions ( $M = 4.45$ ,  $SD = 2.26$ ),  $t(313) = 1.78$ ,  $p = .038$ ,  $d = .26$ . There was no difference in behavioral intentions between the absolve and control conditions.

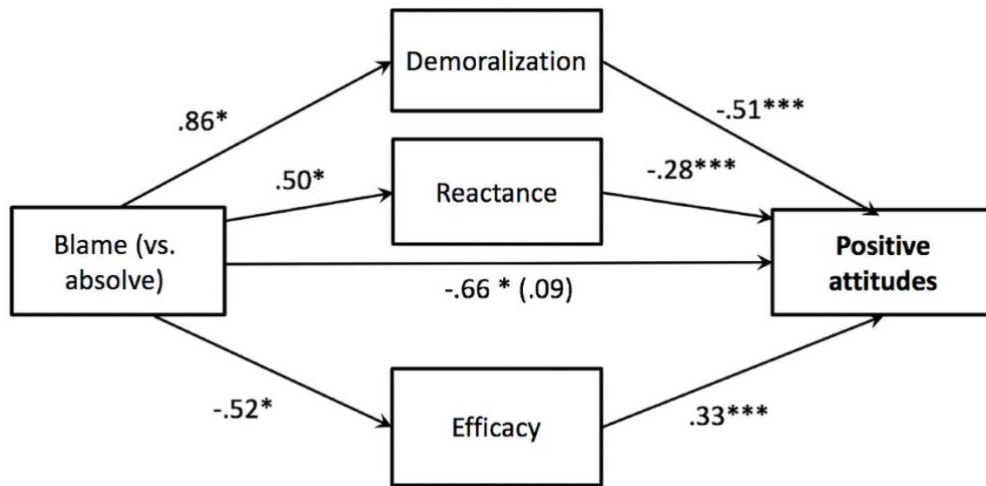
Defensiveness as a mediator of the impact of frames on attitudes and behavioral intentions. To test whether defense mechanisms mediated the relationship, first, between blame (vs. absolve) and positive attitudes towards veg\*nism, and second, between blame (vs. absolve) and behavioral intentions towards veg\*nism, we conducted separate mediational analyses using Hayes' PROCESS (2013) bootstrapping command with 5,000 iterations (model 4). As human superiority beliefs were not significantly predicted by condition, this variable was not included in the mediation analyses. To account for the control group, we used the multicategorical function that automatically creates dummy variables, with D1 (absolving vs. blaming) as the independent variable, and D2 (absolving vs. control) as a control.

Attitudes. The mediation analysis showed that the indirect effect of condition on positive attitudes towards veg\*nism through demoralization [effect =  $-.44$ ,  $SE = .22$ , 90%

CI (-.82, -.08)] reactance [effect = -.14, SE = .07, 90% CI (-.27, -.02)], and efficacy [effect = -.17, SE = .08, 90% CI (-.31, -.06)] were all significant (see Figure 2.3).

**Figure 2.3**

Model testing the effect of condition (blame vs. absolve) on positive attitudes towards veg\*nism through demoralization, reactance, and efficacy beliefs for Study 3.

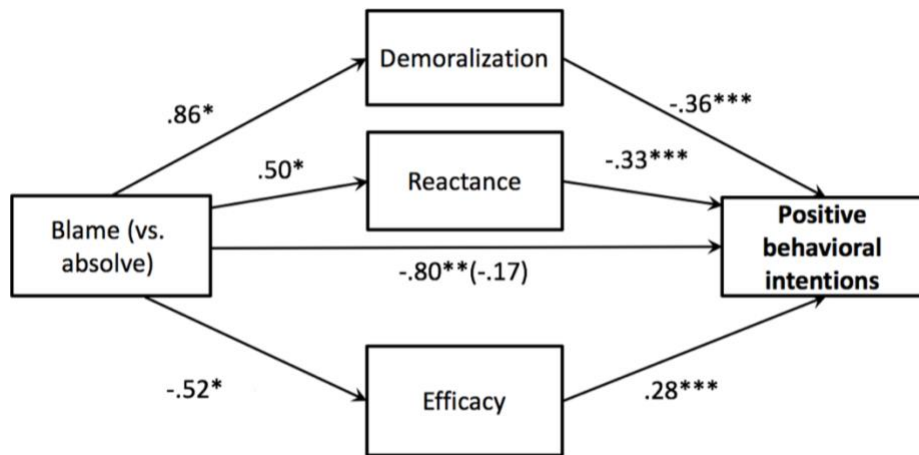


Note. Unstandardized coefficients displayed. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ , one-tailed tests.

Behavioral intentions. The mediation analysis revealed that the indirect effect of condition on behavioral intentions towards veg\*nism through demoralization (effect = -.32, SE = .16, 90% CI (-.58, -.06)), reactance (effect = -.17, SE = .08, 90% CI (-.32 -.03)), and efficacy (effect = -.15, SE = .07, 90% CI (-.28, -.04)) were all significant (see Figure 2.4) These results again suggest that defensiveness may explain the effect of the blaming texts on resistance to changing attitudes and behavioral intentions.

**Figure 2.4**

Model testing the effect of condition (blaming vs. absolving) on positive behavioral intentions towards veg\*nism through demoralization, reactance, and efficacy beliefs for Study 3.



Note. Unstandardized coefficients displayed. \* $p < .05$ , \*\*  $p < .01$ , \*\*\*,  $p < .001$ , one-tailed tests.

Overall, the results of Study 3 were largely consistent with those of Study 1. We found that compared with being absolved, being blamed for the suffering of animals, led to more defensiveness and less positive attitudes and behavioral intentions towards veg\*nism. There were several defense mechanisms that mediated these effects namely, demoralization, reduced efficacy beliefs, and reactance, though not human superiority. In other words, those who were blamed (vs. absolved) regarded veg\*nism as less of a moral issue, believed that they were less able to change their diet towards veg\*nism, and felt that the information that they read about animal suffering (with the blame-frame) was a threat to their freedom of choice. Of note, the manipulation check was below the threshold for significance ( $p = .063$ ) unlike in the manipulation check pilot study in which it was highly significant ( $p = .002$ ). This could be because it was measured after participants had already responded to the defense mechanism measures, which might have alleviated their sense of blame, or because it was measured at the end of the survey and thus more removed from the text, whereas in the pilot study it was measured directly after participants read the text.

In this study, we added a control condition to better understand whether the differences between conditions were due to being absolved or being blamed. The pattern of results suggests blame may play a larger role than being absolved in driving the effects on attitudes and behavioral intentions via defensiveness. This is because there were differences, significant and trending, between the blame and control condition for most variables. The only significant difference between the absolve and control condition was for reactance—those who were absolved expressed less reactance than those in the

control condition. Although the overall pattern suggests that it is being blamed that leads to greater defensiveness and less change in attitudes and behavioral intentions, the largest effects are consistently between the blame and absolve conditions, suggesting that both blaming and absolving play some role.

### **Mini-Meta-Analysis of Main Effects across Studies**

To assess the overall effect of blaming (vs. absolving) on attitudes and behavioral intentions towards veg\*nism across the three studies, we conducted a mini-meta analysis (Goh et al., 2016). Overall, the main effects across studies were significant. Those in the blame condition had less positive attitudes towards veg\*nism than those in the absolve condition ( $M d = .20$ ,  $Z = 3.01$ , 95% CI [0.07, 0.32],  $p = .002$ , two-tailed). Those in the blame condition had less positive behavioral intentions towards veg\*nism than those in the absolve condition ( $M d = .18$ ,  $Z = 2.73$ , 95% CI [0.05, 0.31],  $p = .006$ , two-tailed). The overall effects are fairly small but clearly significant and suggest that introducing information about harm to animals using blaming (vs. absolving) frames leads to less positive attitudes and behavioral intentions towards veg\*nism.

### **General Discussion**

In this work, we hypothesized that presenting information about harm to animals in factory farming using a blaming (versus absolving) frame would lead to increased defensiveness, and in turn, resistance to change in both attitudes and behavioral intentions. To test this, we ran three studies in which omnivore participants were presented with information that detailed the harm experienced by animals in factory farms, preceded either by a blaming or an absolving title and opening. Following this, participants responded to measures of defensiveness, which could potentially serve to protect their moral self-image, and reported their attitudes and behavioral intentions towards veg\*nism.

The results of a mini-meta analysis combining the blame and absolve conditions across studies ( $N = 961$ ) showed that the blaming frame (vs. absolving frame) led participants to support veg\*nism less, expressed in both attitudes and behavioral intentions. We found strong support for our hypothesis in Study 1. Specifically, being blamed (vs. absolved) led to less support for veg\*nism, via an increase in two distinct defense mechanisms: human superiority and demoralization. In Study 2, we did not replicate these results. In Study 3, we found that being blamed (vs. absolved) led to reduced positive attitudes and behavioral intentions towards veg\*nism, like in Study 1,

and that these effects were mediated through the increased use of defense mechanisms: again demoralization, reactance, and reduced efficacy beliefs, but not human superiority beliefs. Across the studies, we also tested and found no difference in the extent to which participants recalled the information about harm across conditions. This suggests that the effect of being blame (vs. absolved) on resistance to attitudinal and behavioral change was not driven by differential recollection of the information presented, but rather, was due to the defensive ways in which participants who were blamed contended with it. To the best of our knowledge, this is the first demonstration of the costly effects of blame in persuasion efforts, and specifically with regards to raising awareness of animal suffering in factory farming.

From an applied perspective, our results suggest that activists and campaigners should seriously consider that people care deeply about their moral image. Attributing blame may be an instinctive response for those who are invested in moral issues (also beyond veg\*nism). However, activists would do well to impart powerful and thought-provoking information while maintaining the integrity of their target audience's moral self-image, in order not to elicit defensive reactions. If information is provided in a way that can be construed as blaming, self-protective and justifying responses may follow and campaigns may even backfire.

The pattern of findings across the studies highlights the importance of exploring boundary conditions for our hypothesis. In Studies 1 and 3, where we found that blaming (vs. absolving) led to less positive attitudes and behavioral intentions towards veg\*nism, participants were recruited mainly via social media and college campuses and were primarily students; whereas in Study 2, where we found no effect of blaming, participants were paid through an online survey company. As well as being paid, Study 2 participants were significantly older, and the sample consisted of relatively more men and more political conservatives, than in Studies 1 and 3. A wealth of research suggests that younger (vs. older) people (Beardsworth & Keil, 1998), women (vs. men) (Cooney, 2014) and liberals (vs. conservatives) (Caviola et al., 2019; Dhont & Hodson, 2014) are more likely to be veg\*n and are more open to veg\*nism, suggesting that they may be more receptive to veg\*nism campaigns at the outset. In Israel too, veganism is positively associated with being younger, being a woman, and being liberal, and this dietary choice may even be seen as incompatible with opposing social identities (Gvion, 2020; Schwarz, 2020). It could thus be that participant in Studies 1 and 3, were more favorable to veg\*nism, compared with those in Study 2. While age, gender, and political orientation

did not moderate the effects of blaming (vs. absolving) on attitudes and behavioral intentions towards veg\*nism in the current studies, a question for future research is whether other related variables may moderate the effect.

Defensive responses might be more or less pronounced among those with affinities to different social identities or cultures. Existing work suggests that there are multiple factors that can influence meat-eating behavior, including values, beliefs, emotions, or external incentives such as price and availability, and that these may vary for groups of people with particular identities (Stoll-Kleemann & Schmidt, 2017). In the real world, veg\*n animal advocacy groups not only make moral arguments for veg\*nism, they also employ other strategies in a bid to reduce animal-product consumption, such as promoting personal health messages, promoting flexible diets, and drawing on social norms. It could be that for those who might be more inclined towards veg\*nism for ethical reasons at the outset, moral messages, like the ones we tested in our study, may have more influence. However, for other groups of people who are more motivated to preserve their health, for example, older populations, health messages may be more effective (Stoll-Kleemann & Schmidt, 2017). This is a question that future work could explore.

Across our studies, we measured several different possible defense mechanisms. Overall, defensiveness mediated the relationship between blaming (vs. absolving) and attitudes and behavioral intentions, but further research is merited to examine which are the more meaningful defense mechanisms and for whom. Demoralization was a consistent mediator across the two studies in which main effects were found (Study 1 and 3) whereas human superiority beliefs mediated the effects in Study 1 but not 3. Furthermore, both efficacy beliefs and reactance were meaningful mechanism in Study 3, but were not examined in Study 1. This suggests that there are multiple defensive strategies that lead to resistance to change, which is in line with previous research demonstrating the many ways that people are defensive in the domain of meat-eating (e.g., (Bastian & Loughnan, 2017; Beardsworth & Keil, 1998; Graça et al., 2016) ). Future research should investigate which defense mechanisms are more prevalent among different groups of individuals, situations, and cultural contexts.

Another interesting question that is beyond the scope of this paper is whether assigning blame at the group level (e.g., society, omnivores) would be more effective than blaming the individual for their harmdoing. While one could argue that the threat associated with blame may be diffused if targeted at a collective, we might expect that

because one's identity and self-esteem is generally strongly intertwined with one's group identity (Tajfel et al., 1979), blame directed at one's group may be equally counter-productive. Finally, examining the long-term effects of being blamed is important for both theoretical and applied purposes. More time to consider a blaming message may simply provide people with greater opportunity to further justify their opinions and could thus entrench their existing attitudes even more. However, given that our work looked at the immediate response to blaming messages, more research is necessary to test this empirically.

### **Conclusion**

Limitations notwithstanding, our findings contribute to the literatures on social change, moral self-image maintenance and to the literature on the psychology of veg\*nism. The results suggest that the way in which activists communicate ethical transgressions impacts their effectiveness. Activists in social movements, who are often motivated by strong moral convictions about their cause (van Zomeren et al., 2011), might be inclined to blame people, either intentionally or inadvertently, for their complicity in unethical behavior, as they try to raise awareness and promote their moral agenda. Our work warns of the unintended negative consequences of blaming and suggests that blame leads to increased defensiveness and may be counter-productive. This work indicates that it may be more effective to alleviate people of responsibility for their past wrongdoing while informing them about the harm in which they are involved, in order to increase receptiveness to information about harm and consequently bring about change.

Supplementary information can be found online:  
<https://doi.org/10.1371/journal.pone.0254375.s001>



## **Chapter 3: Exposure to Analogous Harmdoing Increases Acknowledgment of Ingroup Transgressions in Intergroup Conflicts**

Intergroup reconciliation requires perpetrators to acknowledge their harmdoing (Čehajić-Clancy & Brown, 2010), yet people are often resistant to accept that their group has caused suffering (Branscombe & Miron, 2004). Such resistance can be both cognitive—with group members refusing to acknowledge the wrongness of ingroup harmdoing, and emotional—with group members avoiding corresponding feelings of guilt and shame. Individuals derive a sense of self-worth, in part, from group membership, as suggested by social identity theory (Tajfel & Turner, 1986), and are highly motivated to view their group in a positive light (Leach et al., 2007). Acknowledging harm committed by the ingroup, even acts in which the individual was not personally involved, can be highly threatening (Čehajić-Clancy et al., 2011).

When confronted with ingroup harmdoing, individuals find ways to cognitively disengage their moral standards to exonerate their group from wrongdoing (Bandura, 2017; Leidner & Castano, 2012). In the context of intractable conflicts, in particular, people frequently deny ingroup harmdoing (Cohen, 2001) and if undeniable, use many strategies to rationalize or downplay it (Halperin et al., 2010; Waytz et al., 2014). This results in moral hypocrisy, whereby individuals judge their group's wrongdoings more leniently than those of others (Lammers et al., 2010; Valdesolo & DeSteno, 2007, 2008). Similarly, people rarely experience group-based critical emotions such as guilt and shame toward ingroup conduct (Leach et al., 2013). However, group-based critical emotions play a central role for justice and reconciliation processes (Allpress et al., 2010; Leach et al., 2006; Reifen Tagar et al., 2014, but see Leach & Cidam, 2015, about the two distinct outcomes of shame). It, therefore, remains an important challenge for conflict resolution to promote both cognitive and emotional acknowledgment of ingroup harmdoing.

What, then, can be done to reduce biased processing to increase acknowledgment of ingroup harmdoing? Research on motivated reasoning suggests that the motivation to reach preferred conclusions can be attenuated by making evaluations in a comparative context (Paharia et al., 2013). One way to reduce double standards may be by presenting people with analogies (e.g., Uhlmann et al., 2009). We investigate whether analogies can lead to less biased evaluation of ingroup harmdoing. Specifically, we test whether

evaluating harmdoing in a different, unrelated, context where there is no motivation to justify the harmdoing, subsequently reduces biased evaluation of an analogous ingroup transgression.

### **Analogies in Moral Judgment**

Analogy is an important tool in reasoning (Gick & Holyoak, 1980). Analogical reasoning involves considering a source and a target that share similarities or higher-order relational structures and transferring knowledge from the source to the target via new insight garnered from considering the source (Gentner, 1983). Analogy can facilitate problem solving and lead to new discoveries (Gentner, 2006). Analogy has also been used in moral decision-making and problem solving, including in the interpersonal domain, as generalizations from solved problems can inform solutions to target problems (Barak-Corren et al., 2017; Blass & Forbus, 2015). Research in moral judgment, primarily focusing on hypothetical moral dilemmas, has found that people are more likely to judge an ambiguous scenario as wrong after first engaging with an analogous scenario that is unequivocally wrong (Lombrozo, 2009; Schwitzgebel & Cushman, 2015; Wiegmann et al., 2012; Wiegmann & Waldmann, 2014). In the political context, Study 2 in Uhlmann et al. (2009) found that participants' political ideology motivated their moral judgments of hypothetical moral dilemmas, but when asked about two similar dilemmas sequentially, participants were consistent with their initial biased judgments when responding to the second dilemma, regardless of the order in which they were presented. This indicates that analogies may be used to foster consistency between judgments that would have otherwise differed due to motivated reasoning.

Recent relevant work that we know of includes an examination of analogies in the intergroup context and showed that White participants were less likely to collectively blame Muslims for terrorism committed by Islamic extremists after first being asked how responsible they think they, themselves, or White people were for hate crimes committed in the name of White identity (Bruneau et al., 2018, 2019). This research highlights the power of analogies in shaping moral judgment in the intergroup context. Yet, it remains to be tested whether analogies can lead people toward acknowledging ingroup harmdoing in intractable conflict.<sup>1</sup> In the context of intractable conflict, in which people's attitudes

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<sup>1</sup> One unpublished field study (Lustig, 2002, cited by Solomon, 2004) indicated that exposure to an analogous conflict can improve aspects of intergroup relations among those involved in a different intractable conflict. Despite a small sample and mixed results, these findings imply that analogies may be beneficial in this context, but further research is warranted.

are particularly rigid and resistant to change (Halperin & Bar-Tal, 2011), analogies might fail to be impactful. Drawing an analogy between harming toward the ingroup and harming of the ingroup might backfire, as reminders of victimhood may reduce feelings of guilt toward ingroup harming (Wohl & Branscombe, 2008). We therefore propose a subtler approach to encourage less biased evaluation of ingroup harming, in which participants consider a removed, analogous scenario of harming that is unrelated to their conflict.

### **The Current Research**

We hypothesized that evaluating an analogical case of harming in a removed context, where there is no motivation to justify the perpetrators, would increase acknowledgment of ingroup harming as individuals apply insights gained from the removed case to that of ingroup harming. We tested our hypothesis in the context of the Israeli–Palestinian conflict, focusing on Jewish-Israelis’ judgments of home demolition carried out by Israel toward families of Palestinian terrorists. We used home demolition as our target case as it is official policy and therefore unlikely that participants would deny that the harming occurred, or would discount it as the work of a few law-breakers. Although this policy of home demolition is widely supported among Jewish-Israelis—80% support the policy (Peace Index, 2015)—it goes against a strong international norm that prohibits harming one person for another’s crime (Darcy, 2010). Interestingly, most Israelis (53%) oppose demolishing the family home of an Israeli who has murdered Palestinians for nationalistic reasons (Peace Index, 2015), suggesting double standards.

We conducted six studies to test whether, why, and under what conditions evaluation of harming in a removed context leads to increased acknowledgment of ingroup harming. In Study 1, we examined the effect of the presence or absence of an analogy on evaluation of ingroup harming. In Studies 2 and 3, we aimed to rule out confounding explanations for the effect. In Study 4, we tested whether the analogy was still effective if anticipated, by presenting the cases of removed and ingroup harming side by side. In Study 5, we tested whether the removed case of harming leads participants to acknowledge ingroup harming if it is more extreme than that of ingroup harming, or rather if a more extreme removed scenario gives participants room to legitimize ingroup harming. In Study 6, we directly tested the mechanism for the effect of the analogy, namely, analogical reasoning. We assessed whether engaging with a removed case of harming leads to increased endorsement of domain-specific moral

principles against the harmdoing described, specifically against collective punishment of family members, leading to increased acknowledgment of the ingroup transgression. To rule out an anchoring bias, we tested whether the effect of the analogy holds if participants simply contemplate the case of removed-harmdoing, rather than respond to items evaluating it. The data for all studies is available at <https://osf.io/wv8ch/>.

### Study 1

In Study 1, we tested whether first evaluating a case of harmdoing in a removed context leads people to perceive a similar case of ingroup harmdoing as more wrong, expressed both cognitively, in judgment of ingroup harmdoing, and emotionally, in group-based critical emotions toward the harmdoing.

#### Method

**Participants and procedure.** We recruited 185 Jewish-Israeli participants via an online survey company. After dropping 14 participants who failed attention checks, 171 participants remained (demographic details of the sample for each study can be found in the Supplemental Material). In Studies 1 and 2, we did not conduct an a priori power analysis to determine the sample size.

Participants were randomly assigned to one of the two conditions: in the single-evaluation condition, participants read an article, based on a real ingroup transgression, where Israeli authorities demolished the home of Mohammed Allyan, a Palestinian, whose son committed a deadly terrorist attack in Israel and was killed at the scene. The article explained that several family members were now homeless, included an image of Mohammed standing in the ruins of his home, and provided information about the Israeli policy of home demolition. In the analogy condition, participants read the same article, but first, they read and evaluated a similar (fabricated) case of collective punishment in a removed context, describing the Sri Lankan authorities' arrest of an uncle (Myo) and cousins of members of a violent, nationalist, Buddhist group and described the government policy of detaining relatives, without trial (see the Supplemental Material for full texts). In both articles, it was clear that those who were punished were uninvolved with the violent acts. The stories were analogous as they both depicted situations where family members were punished for the political violence of their relatives. Participants in both conditions then answered a short survey, including measures of moral judgment and group-based critical emotions toward ingroup harmdoing.

**Measures.** All response scales for items across studies ranged from 1 (not at all) to 7 (very much). In all studies, response scales for evaluation of ingroup harmdoing and removed-harmdoing did not include numbers, but rather labels at the endpoints and midpoint of the scale, to reduce the potential effect of numerical anchoring on subsequent judgments of ingroup harmdoing (see Tversky & Kahneman, 1974, on numerical anchoring). In all studies, participants reported their gender, age, religiosity, and political ideology using one item (How would you define your political stance?) with answers ranging from 1 (extreme left) to 7 (extreme right).

**Wrongness of removed-harmdoing.** After reading the removed-harmdoing case and before reading the ingroup-harmdoing case, participants in the analogy condition were asked how wrong they thought the removed-harmdoing was (“How wrong do you think it was that Myo and his sons were arrested?” and “To what extent do you view these types of methods in response to terrorist attacks as morally wrong?”;  $\alpha = .85$ ).

**Empathic emotions toward removed victims.** Participants in the analogy condition were asked to rate how much they felt empathy and compassion toward, and sadness and anger for, the victims of removed-harmdoing ( $\alpha = .93$ ).

**Main measures.** Participants in both conditions responded to the following measures.

**Wrongness of ingroup harmdoing.** Two items measured the perceived wrongness of ingroup harmdoing: “How wrong do you think it was to destroy the Allyan’s (the terrorist’s) family home?” and “To what extent do you view these types of methods in response to terrorist attacks as morally wrong?”)  $\alpha = .86$ ).

**Group-based critical emotions.** Participants were asked to what extent they felt shame and guilt about Israeli forces demolishing the Palestinian family home ( $\alpha = .84$ ).

**Moderators.** In all studies, we included potential exploratory moderators, such as perception of the Israeli–Palestinian conflict as unique and ingroup identification.<sup>2</sup>

## **Results and Discussion**

**Initial analysis.** First, we assessed participants’ responses toward the case of Sri Lankan collective punishment to check whether participants indeed viewed it as wrong.

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<sup>2</sup> A list of moderators included in all studies for exploratory purposes is presented in the Supplemental Material.

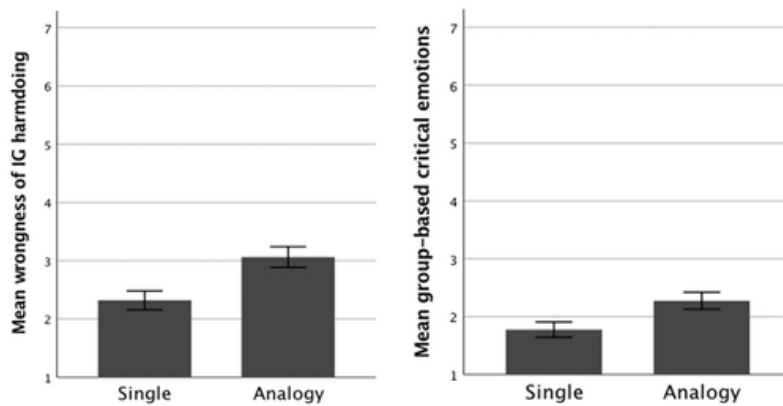
We found a near ceiling effect with participants viewing it as morally wrong ( $M = 5.93$ ,  $SD = 1.21$ ) and experiencing high levels of empathic emotions toward the victims ( $M = 5.37$ ,  $SD = 1.36$ ). In contrast, participants in the single-evaluation condition did not view the ingroup-harmdoing case as wrong ( $M = 2.30$ ,  $SD = 1.63$ ). We found further suggestive evidence that evaluations of ingroup harmdoing were motivated as there were significant correlations between political ideology and evaluations of ingroup harmdoing, among participants in the single-evaluation condition, with participants who identified as more right-wing judging ingroup harmdoing as less wrong ( $r = -.51$ ,  $p < .001$ ) and feeling weaker group-based critical emotions ( $r = -.39$ ,  $p < .001$ ), whereas there was no correlation between political ideology and moral judgment of the removed scenario ( $r = -.11$ ,  $p = .35$ ) or empathic emotions toward the victims of removed-harmdoing ( $r = -.12$ ,  $p = .32$ ).

We also tested whether there was a correlation between judgments of removed-harmdoing and judgments of ingroup harmdoing among those in the analogy condition. Indeed, we found a moderate positive correlation ( $r = .37$ ,  $p = .001$ ), which remained unchanged when controlling for political ideology, indicative of analogical reasoning. Correlations across conditions are presented in Table S1 in the Supplemental Material.

**Main analysis.** Given its centrality in predicting attitudes in the context of the Israeli–Palestinian conflict (Bar-Tal, 2013), across our main analysis in all studies, we controlled for political ideology. To test whether the analogy led participants to perceive ingroup harmdoing as more wrong, we conducted a one-way analysis of covariance (ANCOVA). We found a significant effect of condition on wrongness judgments,  $F(1, 168) = 9.57$ ,  $p = .002$ ,  $\eta_p^2 = .054$ . Participants in the analogy condition judged ingroup harmdoing as more wrong ( $M = 3.06$ ,  $SE = 0.18$ , 95% confidence interval [CI] = [2.71, 3.41]) than those in the single-evaluation condition ( $M = 2.32$ ,  $SE = 0.16$ , 95% CI = [2.01, 2.64]; Figure 3.1). We also found a main effect of condition on group-based critical emotions,  $F(1, 168) = 6.39$ ,  $p = .012$ ,  $\eta_p^2 = .037$ . Those in the analogy condition experienced stronger group-based critical emotions toward ingroup harmdoing ( $M = 2.27$ ,  $SE = 0.15$ , 95% CI = [1.99, 2.56]) than those in the single-evaluation condition ( $M = 1.78$ ,  $SE = 0.13$ , 95% CI = [1.51, 2.04]; Figure 3.1). These effects were not moderated by political ideology, demographic variables, or exploratory moderators included.

### Figure 3.1

Effect of condition on perceived wrongness of ingroup harmdoing and on group-based critical emotions, controlling for political ideology, in Study 1.



Note. Error bars represent  $\pm$  SE of the mean.

Study 1 provided support for our hypothesis that first considering a case of harmdoing in a removed context leads to increased acknowledgment of ingroup harmdoing. However, the psychological process by which the first scenario affected evaluation of the second remained unclear. Although these results could be due to analogical reasoning, there are other aspects of the removed scenario that could have contributed to the effect. Our next steps, in Studies 2 and 3, were to test whether empathy arousal or increased endorsement of general moral principles or moral anger is sufficient for the removed scenario to impact acknowledgment of ingroup harmdoing, or whether it is necessary that the removed scenario depicts an analogous moral transgression.

## Study 2

One explanation for the findings of Study 1 may be that the first scenario depicted human suffering, thereby arousing empathy, which then affected judgments of ingroup harmdoing. The appraisal tendency framework suggests that emotions play a powerful role in shaping cognitive processes and decision-making (Lerner et al., 2015). In the context of conflict, empathy toward outgroup members can lead to more positive attitudes toward them and a desire to help them (Pliskin et al., 2014; Stephan & Finlay, 1999). It is therefore possible that empathy aroused from evaluating removed-harmdoing could account for the observed effect, rather than the evaluation of analogical harmdoing. To rule out this potential confound, we added a condition where participants first evaluated a removed case of suffering that would likely arouse empathy, but did not depict a moral transgression. If the original observed effect can be attributed to the empathy elicited by

the removed case, rather than the analogy, then this new case depicting suffering would also increase acknowledgment of ingroup harmdoing.

We additionally tested whether individual differences in preference for consistency moderated the effect of the analogy. While the literature on analogical reasoning suggests that analogies operates via a cognitive learning process, it is possible that a motivation for consistency underlies the observed effects. We considered that people who have a higher preference for consistency may be more affected by the analogy.

## **Method**

**Participants and procedure.** We recruited 216 Jewish-Israeli participants via an online survey company. After dropping 20 participants who failed attention checks, 196 remained.

The procedure was the same as in Study 1, except for the additional empathy condition. Participants were randomly assigned to one of the three conditions: single-evaluation, analogy, and empathy. Before evaluating ingroup harmdoing, participants in the empathy condition evaluated a fabricated article about a flood in Sri Lanka that left families homeless (see the full text in the Supplemental Material).

**Measures.** As in Study 1, participants in the analogy condition rated wrongness of removed-harmdoing ( $\alpha = .86$ ). Participants in the analogy and empathy conditions rated empathic emotions toward removed victims. These questions were asked in order that participants reflect on the removed scenarios. The emotions we compared across these two conditions to check that our empathy manipulation did arouse empathy were empathy and compassion toward the removed victims ( $\alpha = .73$ ).

**Main measures.** As in Study 1, all participants responded to measures of wrongness of ingroup harmdoing ( $\alpha = .93$ )<sup>3</sup> and group-based critical emotions ( $\alpha = .92$ ).

**Preference for consistency.** This six-item scale, comprising items from a measure by Cialdini et al. (1995), was also included after the outcome variables, and

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<sup>3</sup> In Studies 2, 3, and 4, we added one reverse-coded item to the measure of wrongness of ingroup harmdoing. Reliability always improved with this item deleted, and therefore, we did not include it in the final measure. We find a similar pattern of results across studies with this item included.



measured participants' desire to be consistent, based on self-report ( $\alpha = .78$ ; see the measure in the Supplemental Material).

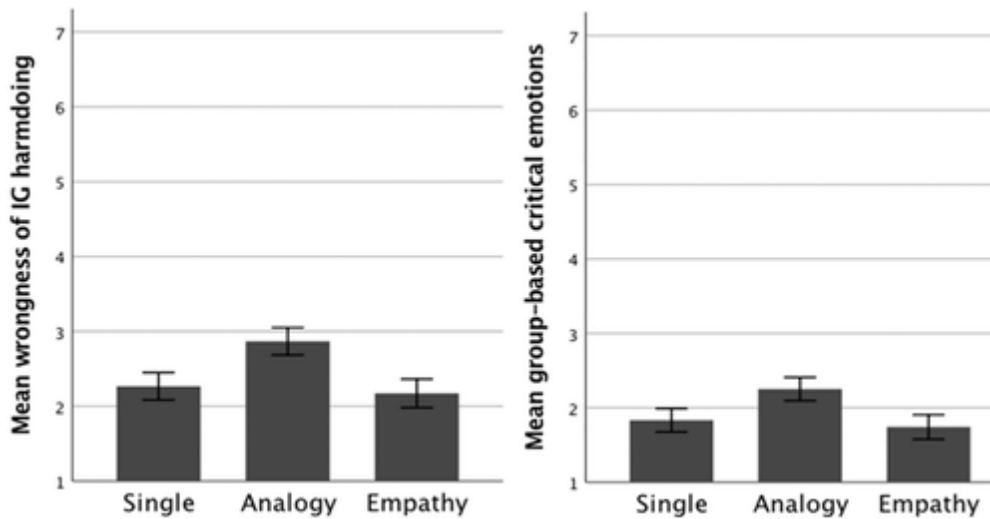
## Results and Discussion

**Initial analysis.** Table S2 in the Supplemental Material contains correlations between political ideology and judgments of harmdoing per condition and Table S3 in the Supplemental Material contains correlations across conditions. We first tested whether the article depicting floods in Sri Lanka evoked as much empathy and compassion as that depicting collective punishment in Sri Lanka. We ran an independent-samples t test and established that both articles evoked the same degree of empathy toward the victims ( $M = 5.57$ ,  $SD = 1.16$  vs.  $M = 5.58$ ,  $SD = 1.27$ ),  $t(128) = 0.08$ ,  $p = .938$ .

**Main analysis.** A one-way ANCOVA, controlling for political ideology, revealed a significant effect of condition on judgment of ingroup harmdoing,  $F(2, 189) = 4.17$ ,  $p = .017$ ,  $\eta_p^2 = .04$ . Compared with those in the single-evaluation condition ( $M = 2.27$ ,  $SE = 0.18$ , 95% CI = [1.91, 2.63]), those in the analogy condition judged ingroup harmdoing as more wrong ( $M = 2.87$ ,  $SE = 0.18$ , 95% CI = [2.51, 3.23],  $p = .021$ ). There were no differences in perceived wrongness of ingroup harmdoing between those in the single-evaluation and the empathy condition ( $M = 2.17$ ,  $SE = 0.19$ , 95% CI = [1.80, 2.55],  $p = .724$ ). Participants in the analogy condition judged ingroup harmdoing as significantly more wrong than those in the empathy condition ( $p = .009$ ; Figure 3.2). We also found an effect of condition on group-based critical emotions regarding ingroup harmdoing,  $F(2, 189) = 2.94$ ,  $p = .055$ ,  $\eta_p^2 = .03$ . Compared with those in the single-evaluation condition ( $M = 1.83$ ,  $SE = 0.16$ , 95% CI = [1.52, 2.14]), those in the analogy condition tended to feel stronger group-based critical emotions, although the effect was marginal ( $M = 2.25$ ,  $SE = 0.16$ , 95% CI = [1.94, 2.56],  $p = .061$ ). There was no difference in group-based critical emotions between those in the single-evaluation condition and empathy condition ( $M = 1.74$ ,  $SE = 0.16$ , 95% CI = [1.42, 2.07],  $p = .687$ ). Participants in the empathy condition felt less group-based critical emotions than those in the analogy condition ( $p = .026$ ; Figure 3.2).

### Figure 3.2

Effect of condition on perceived wrongness of ingroup harmdoing and on group-based critical emotions, controlling for political ideology, in Study 2.



Note. Error bars represent  $\pm$ SE of the mean.

We next tested whether preference for consistency moderated the effectiveness of the analogy condition and found that it was not a moderator ( $p = .30$ ), suggesting that a conscious motivation for consistency is not driving the effect. Again, effects in this study were not moderated by political ideology, exploratory moderators included, or demographic variables.

We replicated the results of Study 1 and showed that evaluating removed-harmdoing led participants to view similar ingroup harmdoing as more wrong, compared with only evaluating ingroup harmdoing and first evaluating an empathy-arousing scenario. The empathy-arousing scenario depicting suffering, rather than a moral transgression, did not affect perceptions of ingroup harmdoing. These results rule out the possibility that our findings were solely due to empathy arousal.

### Study 3

Results of Study 2 indicated that the removed case evaluated should depict a moral transgression (i.e., harmdoing) for it to impact judgments of ingroup harmdoing. However, it remains unclear whether the two cases need to depict harmdoing in the same domain (e.g., collective punishment). It may be that first engaging with any transgression increases endorsement of general moral principles against injustice, or its emotional counterpart, moral anger, thereby leading people to view ingroup harmdoing as more wrong. An analogy may, however, only be effective if the two cases of harmdoing are in a similar domain. According to research on analogical mapping, analogies often go unnoticed if the source and target are from different domains (Gick & Holyoak, 1983). To

test this, in addition to the single-evaluation condition and the analogy condition, we included a condition in which participants first read about a (fabricated) case of harmdoing describing Sri Lankan men being arbitrarily arrested and extorted by the police. This is a case of injustice, but unrelated to collective punishment. We were thus able to test whether this scenario increased endorsement of general moral principles and moral anger, and whether either was sufficient to increase acknowledgment of ingroup harmdoing.

## **Method**

**Participants and procedure.** We used G\*Power to determine an optimal sample size (Faul et al., 2009) based on a small/medium effect size (Cohen's  $d = .35$ ), an  $\alpha$  of .05 and power of .80. The power analysis determined that we needed 318 participants in total. We recruited 346 Jewish-Israeli participants to allow for drop out. After screening out 17 who failed attention checks, 329 participants remained.

Participants were assigned to a single-evaluation, analogy, or unrelated-harm condition. In the unrelated-harm condition, participants first read about a case of police corruption in Sri Lanka in which people were arrested for no reason and extorted for money (the full text is presented in the Supplemental Material). This article was identical to that first read in the analogy condition, except the reason behind the arrest was different and unrelated to collective punishment.

**Measures.** Participants in the analogy and unrelated-harm conditions rated wrongness of removed-harmdoing ( $\alpha = .80$ ) and empathic emotions toward removed victims ( $\alpha = .92$ ). We were only interested in comparing anger for victims across these conditions to verify that the article in the unrelated-harm condition evoked just as much anger for the victims as that in the analogy condition. We measured preference for consistency to check again whether it may moderate the effect of the analogy.

**Main measures.** As in previous studies, we measured wrongness of ingroup harmdoing ( $\alpha = .88$ ) and group-based critical emotions toward ingroup harmdoing ( $\alpha = .88$ ).

**General moral principles.** This measure, asked at the end of the survey, aimed to capture how much participants endorsed general moral principles against injustice. Participants were asked to think of their moral principles and rate their agreement with the following statements: "It is wrong to punish people for something they did not do" and "It is unfair to punish people for a crime they did not commit" ( $\alpha = .91$ ).

## Results and Discussion

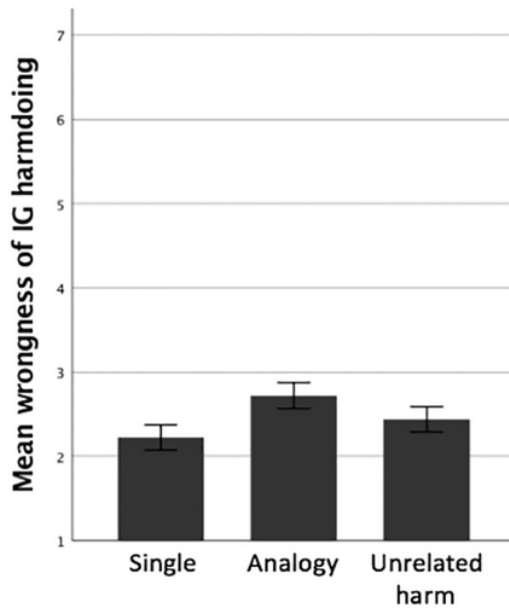
**Initial analysis.** Table S4 in the Supplemental Material contains correlations per condition and Table S5 in the Supplemental Material contains correlations across conditions. We first checked whether participants perceived the corruption case to be as wrong as that of removed collective punishment. A *t* test revealed that the corruption case was actually perceived as more wrong ( $M = 6.78$ ,  $SD = 0.61$ ) than the removed collective punishment case ( $M = 5.75$ ,  $SD = 1.36$ ),  $t(1,214) = 7.21$ ,  $p = .001$ ,  $d = .98$ , thus constituting a more conservative test. Similarly, those in the unrelated-harm condition were more angry for the victims of corruption ( $M = 6.11$ ,  $SD = 1.47$ ) than those in the analogy condition were for the victims of removed collective punishment ( $M = 4.74$ ,  $SD = 1.76$ ),  $t(1,207) = 6.15$ ,  $p < .001$ ,  $d = .84$ . General moral principles were also more strongly endorsed in the unrelated-harm condition. We ran a one-way ANCOVA, controlling for political ideology as this measure was asked at the end of the study and was correlated with political ideology, and found an effect of condition,  $F(2,317) = 18.40$ ,  $p < .001$ ,  $\eta_p^2 = .104$ , on the endorsement of general moral principles. Compared with those in the single-evaluation condition ( $M = 4.38$ ,  $SE = 0.16$ ,  $95\% \text{ CI} = [4.07, 4.70]$ ), those in the analogy condition endorsed general moral principles more strongly ( $M = 4.84$ ,  $SE = 0.17$ ,  $95\% \text{ CI} = [4.52, 5.17]$ ,  $p = .047$ ) and so did those in the unrelated-harm condition ( $M = 5.74$ ,  $SE = 0.16$ ,  $95\% \text{ CI} = [5.42, 6.06]$ ,  $p < .001$ ). Participants in the unrelated-harm condition endorsed general moral principles more strongly than those in the analogy condition ( $p < .001$ ).

**Main analysis.** We conducted a one-way ANCOVA and found a marginal effect of condition on judgment of ingroup harmdoing,  $F(2, 317) = 2.67$ ,  $p = .071$ ,  $\eta_p^2 = .017$ . Again, those in the analogy condition viewed ingroup harmdoing as significantly more wrong ( $M = 2.72$ ,  $SE = 0.16$ ,  $95\% \text{ CI} = [2.42, 3.02]$ ), compared with those in the single-evaluation condition ( $M = 2.23$ ,  $SE = 0.15$ ,  $95\% \text{ CI} = [1.93, 2.52]$ ,  $p = .022$ ). As can be seen in Figure 3.3, those in the unrelated-harm condition judged ingroup harmdoing as slightly more wrong ( $M = 2.44$ ,  $SE = 0.15$ ,  $95\% \text{ CI} = [2.14, 2.73]$ ) than those in the single-evaluation condition and as slightly less wrong than those in the analogy condition, but neither of these differences were significant ( $p = .315$  and  $p = .190$ , respectively). We found no significant differences between conditions for group-based critical emotions toward ingroup harmdoing,  $F(2, 317) = 0.15$ ,  $p = .863$ ,  $\eta_p^2 = .001$ , thus failing to replicate the effect found in previous studies. As in the previous study, preference for consistency

did not moderate the effect of the analogy ( $p = .30$ ), nor did political ideology, demographic variables, or other moderators included.

**Figure 3.3**

Effect of condition on perceived wrongness of ingroup harmdoing, controlling for political ideology, in Study 3.



Note. Error bars represent  $\pm$ SE of the mean.

While those in the analogy condition (vs. the single-evaluation condition) acknowledged ingroup harmdoing as more wrong and had stronger endorsement of general moral principles against injustice, these principles were not found to mediate the effect of the analogy on ingroup harmdoing. This suggests that endorsing general moral principles that are not specific to the domain of ingroup harmdoing (i.e., collective punishment) is not a mechanism for the effect of the analogy.

The results of Study 3 provide additional (although only partial) support for the effectiveness of analogy-based interventions to increase acknowledgment of ingroup harmdoing and suggest that analogies work best when the source and target case are within the same domain. The corruption case was judged as more wrong than that of removed collective punishment, and it led to increased levels of anger for victims, and increased endorsement of general moral principles. Despite this, those who first read about corruption did not evaluate ingroup harmdoing as significantly more wrong

compared with those in the single-evaluation condition, whereas those in the analogy condition did. Our results indicate that endorsing general moral principles against injustice and experiencing moral anger are not sufficient to explain the effects of the analogy-based intervention. It is important to note, however, that the analogy and unrelated-harm conditions did not significantly differ on wrongness judgments of ingroup harmdoing. While our results indicate that engaging with a removed case of harmdoing in the same domain is most effective in shaping judgments of ingroup harmdoing, these results should be interpreted with caution as there was not a significant difference between the analogy condition and unrelated-harm condition. We return to question the importance of domain specificity in Study 6, when we examine the mechanism of the analogy.

There was no difference between group-based critical emotions toward ingroup harmdoing across conditions, unlike in our first two studies. We were surprised by this null result and continued to explore the effect of the analogy on this outcome in our next studies to assess whether this was simply a type 2 error or represented a more meaningful pattern.

#### **Study 4**

In Studies 1 to 3, we found that evaluating a removed case of harmdoing led participants to then judge a similar ingroup transgression as more wrong. In these studies, participants did not anticipate the analogy while considering the removed case of harmdoing, and therefore their judgments about the removed scenario were unlikely to be motivated. In this study, we tested whether our analogy would still be effective if anticipated. We considered that if participants anticipate the analogy, they might be motivated to judge the removed case of harmdoing less critically, as well. This would then allow them to judge ingroup harmdoing less critically while still being consistent. Alternatively, the removed-harmdoing case may encourage reflection as new insights about collective punishment are formed and, consequently, lead participants to judge ingroup harmdoing as more wrong. To test the effect of anticipating the analogy, we added a condition in which participant saw both articles together before any evaluation.<sup>4</sup>

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<sup>4</sup> An additional goal of this study was to test whether after evaluating ingroup harmdoing as acceptable, as participants did in studies so far, participants would then judge removed-harmdoing as more acceptable. To test this, participants in the single-evaluation condition evaluated the removed-harmdoing case after the ingroup-harmdoing case. This would provide us with an indication of the impact of the removed scenario if evaluated second (see the Supplemental Material for results and discussion regarding this).

## Method

**Participants and procedure.** Based on the same power calculation as in Study 3, we recruited 338 Jewish-Israeli participants through a survey company. We dropped 20 participants who failed attention checks, leaving 318 participants.

Participants were assigned to a single-evaluation, analogy, or joint-evaluation condition. In the joint-evaluation condition, participants were presented with the two articles side-by-side and told that they would then read each article in full. They were then asked to type the headlines of both articles before proceeding to read and evaluate each, to ensure that they anticipated evaluation of ingroup harmdoing before evaluating removed-harmdoing. In order not to introduce any confounds, participants evaluated removed-harmdoing and then ingroup harmdoing. The only way this condition differed from the analogy condition was that both articles were first presented side-by-side, and therefore participants could anticipate the analogy before evaluation.

**Measures.** Across all conditions, we measured wrongness of removed-harmdoing ( $\alpha = .92$ ), empathic emotions toward removed victims ( $\alpha = .93$ ), wrongness of ingroup harmdoing ( $\alpha = .90$ ), and group-based critical emotions ( $\alpha = .88$ ) using the same items as in previous studies.

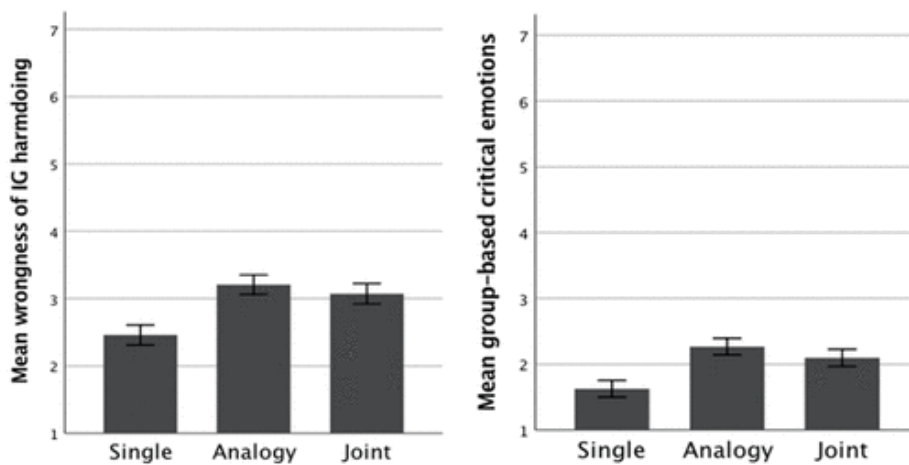
## Results and Discussion

Correlations per condition are presented in Table S6 in the Supplemental Material, and correlations across conditions are presented in Table S7 in the Supplemental Material. We conducted a one-way ANCOVA and found a significant effect of condition on judgment of ingroup harmdoing,  $F(2, 310) = 7.23$ ,  $p = .001$ ,  $\eta_p^2 = .045$ . Compared with those in the single-evaluation condition who evaluated ingroup harmdoing first ( $M = 2.46$ ,  $SE = 0.15$ ,  $95\% CI = [2.17, 2.75]$ ), participants in the joint-evaluation condition ( $M = 3.07$ ,  $SE = 0.15$ ,  $95\% CI = [2.77, 3.37]$ ,  $p = .004$ ) and in the analogy condition ( $M = 3.21$ ,  $SE = 0.15$ ,  $95\% CI = [2.92, 3.49]$ ,  $p < .001$ ) judged ingroup harmdoing as more wrong. There was no significant difference between those in the analogy and joint-evaluation conditions (Figure 3.4). Next, we found a significant effect of condition on group-based critical emotions toward ingroup harmdoing,  $F(2, 310) = 6.77$ ,  $p = .001$ ,  $\eta_p^2 = .042$ . Compared with those in the single-evaluation condition ( $M = 1.63$ ,  $SE = 0.13$ ,  $95\% CI = [1.37, 1.88]$ ), those in the joint-evaluation condition felt stronger group-based critical emotions ( $M = 2.10$ ,  $SE = 0.13$ ,  $95\% CI = [1.84, 2.35]$ ,  $p = .011$ ), as did those in the analogy condition ( $M = 2.27$ ,  $SE = 0.13$ ,  $95\% CI = [2.02, 2.51]$ ,  $p < .001$ ).

There was no difference in group-based critical emotions, between those in the analogy and joint-evaluation conditions (Figure 3.4). Consistent with the pattern of results so far, these results show that engaging with the removed-harmdoing case effectively led participants to judge ingroup harmdoing as more wrong. Furthermore, it did not weaken the intervention if participants anticipated the analogy.

**Figure 3.4**

Effect of condition on perceived wrongness of ingroup harmdoing and on group-based critical emotions, controlling for political ideology, in Study 4



Note. Error bars represent  $\pm$ SE of the mean.

Results of Study 4 suggest that a removed scenario is effective in reducing motivated reasoning of ingroup harmdoing if evaluated before or alongside ingroup harmdoing. Participants who anticipated the analogy could have judged removed-harmdoing more leniently and continued to condone ingroup harmdoing, and still remained consistent. Instead, we found that those in the joint-evaluation condition were just as critical of removed-harmdoing as those who evaluated it first. This suggests that the analogy reduces the effect of motivated reasoning on the evaluation of ingroup harmdoing, actually leading people to be more critical of their ingroup's actions, beyond consistency motivation.

### Study 5

In Study 5, we tested another important boundary condition for the effectiveness of the intervention, specifically whether evaluating a removed case of harmdoing that depicts a more extreme transgression would be effective in leading participants to



acknowledge ingroup harmdoing. On one hand, differences in extremity of the harmdoing might be irrelevant. More than that, evaluating more extreme harmdoing might lead participants to be more critical of the moral transgression and therefore even more critical of similar ingroup harmdoing. This would be consistent with work reviewed earlier showing that after judging a case of harm that is unequivocally wrong, people are more likely to judge a more ambiguous scenario as wrong (Wiegmann et al., 2012). On the other hand, the more extreme case of removed harmdoing might be perceived as less similar to the ingroup-harmdoing case, giving people room to justify ingroup harmdoing while still feeling unbiased. For example, participants could claim that compared with the removed-harmdoing, the case of ingroup harmdoing is minor. This strategy of advantageous comparison, if employed, could render the analogy ineffective (Brown, 2014). To test the effectiveness of first evaluating a more extreme case of harmdoing, we included a condition in which participants first read a (fabricated) article depicting more extreme collective punishment toward relatives of those involved in violent nationalistic crimes.

## **Method**

**Participants and procedure.** We aimed to recruit 340 participants, based on the same power calculation as in previous studies, via student groups on social media. We ended up recruiting 408 participants, a slightly larger sample than required as more people completed the study than expected. After dropping 17 participants who failed attention checks, four who were not Jewish, and a participant who completed the survey twice, 386 participants remained.

Participants were randomly assigned to one of the three conditions—single-evaluation, analogy, or extreme. In the extreme condition participants first read about a father and his sons being disappeared and possibly murdered for the crimes of their relatives (full text is presented in the Supplemental Material). This article was the same as that read first in the analogy condition, except that the harmdoing was more extreme (imprisonment in the analogy and being disappeared and possibly murdered in the extreme). We piloted the material before running the study to verify that the removed-extreme case was perceived as more extreme than the removed case used in the analogy condition here and in previous studies. Using snowball sampling, we recruited 16 participants. Each participant evaluated both articles (the order counterbalanced), and to evaluate perceptions of extremity, they rated how fair, radical, and serious each case of

harmdoing was, and how much they thought the victims suffered. We found that participants judged the extreme scenario as more extreme ( $M = 5.11$ ,  $SD = 0.93$ ) than the original scenarios ( $M = 4.80$ ,  $SD = 0.96$ ),  $t(15) = 2.37$ ,  $p = .03$ .

**Measures.** Participants in the analogy and extreme conditions rated wrongness of removed-harmdoing ( $\alpha = .62$ ) and empathic emotions toward removed victims ( $\alpha = .90$ ).

**Manipulation check.** To check whether the extreme removed scenario was perceived as more extreme than the original removed scenario, participants in the analogy and extreme conditions responded to the same four items as used in the pilot study ( $\alpha = .77$ ).

**Perceived similarity.** To assess whether there were differences in perceived similarity between the two cases of harmdoing evaluated in the analogy condition and the two cases evaluated in the extreme condition, participants answered the following questions: “To what extent, do you think the two articles you read were similar?”; “To what extent do you think the two texts that you read were totally different?” (reversed coded;  $\alpha = .89$ ).

**Main measures.** As in previous studies, we measured wrongness of ingroup harmdoing ( $\alpha = .91$ ) and group-based critical emotions.<sup>5</sup>

## Results and Discussion

**Initial analysis.** Table S8 in the Supplemental Material contains correlations per condition and Table S9 in the Supplemental Material contains correlations across conditions. We conducted a one-way ANCOVA and found a significant difference between the analogy and extreme conditions on the manipulation check,  $F(1,220) = 6.31$ ,  $p = .013$ ,  $\eta_p^2 = .03$ , suggesting that the removed scenario in the extreme condition was indeed perceived as more extreme ( $M = 6.46$ ,  $SE = 0.08$ ,  $95\% CI = [6.31, 6.61]$ ) than that in the analogy condition ( $M = 6.19$ ,  $SE = 0.08$ ,  $95\% CI = [6.03, 6.34]$ ). However, this effect was driven by one item—participants in the extreme condition viewed the case of harmdoing that they read about as more extreme ( $M = 6.36$ ) than those in the analogy condition ( $M = 5.86$ ,  $p = .001$ ), but they did not see it as less fair or as a less serious moral transgression. We next checked whether the extreme case of removed-harmdoing was viewed as less similar to ingroup harmdoing, compared with the original case of removed-harmdoing. We found a marginal effect of condition  $F(1,220) = 3.60$ ,  $p = .059$ ,  $\eta_p^2 = .016$ , such that those in the extreme condition viewed the extreme removed-

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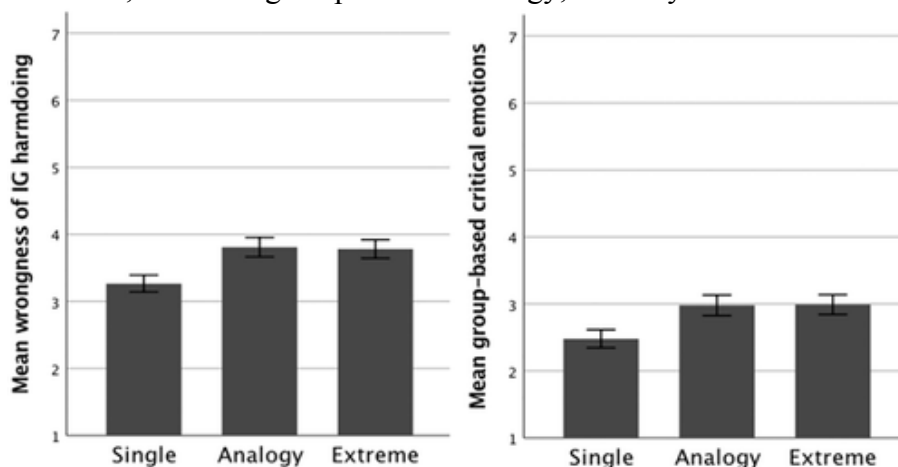
<sup>5</sup> In this study alone, due to human error, guilt toward ingroup harmdoing was not measured.

harmdoing as slightly less similar to ingroup harmdoing ( $M = 4.02$ ,  $SE = 0.16$ ,  $95\% CI = [3.71, 4.32]$ ), compared with those in the analogy condition who viewed the original case of removed-harmdoing as more similar to ingroup harmdoing ( $M = 4.44$ ,  $SE = 0.16$ ,  $95\% CI = [4.13, 4.76]$ ,  $p = .059$ ).

**Main analysis.** A one-way ANCOVA revealed a significant effect of condition on perceived wrongness of ingroup harmdoing,  $F(2,359) = 5.43$ ,  $p = .005$ ,  $\eta_p^2 = .029$ . As in previous studies, compared with those in the single-evaluation condition, participants in the analogy condition judged ingroup harmdoing as more wrong ( $M = 3.81$ ,  $SE = 0.14$ ,  $95\% CI = [3.53, 4.09]$ ,  $p = .005$ ). Those in the extreme condition also judged ingroup harmdoing as more wrong ( $M = 3.78$ ,  $SE = 0.14$ ,  $95\% CI = [3.51, 4.05]$ ), compared with those in the single-evaluation condition ( $M = 3.27$ ,  $SE = 0.13$ ,  $95\% CI = [3.02, 3.51]$ ,  $p = .006$ ). There was no difference between the analogy and extreme conditions (Figure 3.5). Next, we found a significant effect of condition on group-based critical emotions,  $F(2,359) = 4.34$ ,  $p = .014$ ,  $\eta_p^2 = .024$ . Participants in the analogy condition felt stronger group-based critical emotions ( $M = 2.98$ ,  $SE = 0.15$ ,  $95\% CI = [2.68, 3.28]$ ) compared with those in the single-evaluation condition ( $p = .015$ ). Those in the extreme condition also felt stronger group-based critical emotions ( $M = 2.99$ ,  $SE = 0.15$ ,  $95\% CI = [2.70, 3.28]$ ), compared with those in the single-evaluation condition ( $M = 2.48$ ,  $SE = 0.13$ ,  $95\% CI = [2.22, 2.74]$ ,  $p = .011$ ). There were no significant differences between the analogy and extreme conditions (Figure 3.5). These effects were not moderated by political ideology or any of the moderators or demographic variables measured.

**Figure 3.5**

Effect of condition on perceived wrongness of ingroup harmdoing and on group-based critical emotions, controlling for political ideology, in Study 5.



Note. Error bars represent  $\pm SE$  of the mean.

These results provide additional support for the effectiveness of the analogy intervention. They additionally suggest that engaging with a removed case of harmdoing that is more extreme, but depicts a moral transgression in the same domain (i.e., collective punishment), can increase acknowledgment of ingroup harmdoing. The scenario evaluated in the extreme condition was perceived as more extreme than that evaluated in the analogy condition, but was not perceived as significantly different in moral respects. As the extreme removed scenario was only perceived as slightly different from the standard removed scenario, future research should explore this question further, as we cannot rule out the possibility that a similar, but even more extreme, case of harmdoing evaluated first would either be ineffective or lead to backfire effects. However, results of this study provide initial evidence that analogies of harmdoing may have limited sensitivity to differences in extremity between the harmdoing depicted.

### **Study 6**

In Study 6, we directly tested the mechanism of the analogy. We hypothesized the following analogical reasoning process: Evaluating harmdoing in a removed context leads to stronger endorsement of moral principles against the harmdoing depicted, guiding subsequent evaluations of similar ingroup harmdoing. This should lead to more objective reasoning and result in more critical evaluations of similar cases of ingroup harmdoing. Specifically, we tested whether considering collective punishment toward relatives of violent extremists in Sri Lanka (vs. not considering this case) would lead participants to judge a similar case of ingroup-committed collective punishment toward outgroup relatives of a terrorist as more wrong, via stronger endorsement of moral principles against collective punishment of family members. We also tested whether the analogy shapes wrongness judgments of ingroup harmdoing via endorsement of general moral principles against injustice,<sup>6</sup> rather than only via endorsement of principles in the same domain as the harmdoing first depicted (i.e., collective punishment of relatives). We also tested whether increased empathy with outgroup victims is a possible mechanism. In Study 2, we showed that engaging with an empathy evoking scenario was not sufficient to increase acknowledgment of ingroup harmdoing. However, this did not rule out the

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<sup>6</sup> Endorsement of general moral principles was not found to be a mediator in Study 3. We tested this again to gain further clarification regarding endorsement of general versus domain-specific principles as a mechanism.

possibility that the analogy increased empathy with the outgroup victims, contributing to the observed effects, and therefore, we tested this directly.

An additional goal of this study was to rule out that the effect of the analogy is due to anchoring. Anchoring occurs when a judgment is influenced by a previously considered and unrelated number that sets an “anchor” value, which is then used as a guide for subsequent evaluations (Tversky & Kahneman, 1974). Although our response scale did not contain numerical values, participants were presented with the same questions and response options in a scale format for both cases of harmdoing. Evaluating removed-harmdoing could have thus anchored subsequent responses. To rule out an anchoring effect, we tested whether the effects hold when only contemplating removed-harmdoing, without evaluating it on a scale.

Our final goal was to test whether perceiving the two cases of harmdoing as similar is a moderator. Theories of analogical reasoning suggest that similarity increases the transfer of principles from a source to a target case (Gentner & Landers, 1985). We have so far tested the impact of domain similarity between cases (Study 3) and similarity in magnitude (Study 5), but not whether individuals who perceive the cases of harmdoing as more similar are more affected by the analogy. We hypothesized that the greater the perceived similarity of the cases, the more impactful the analogy.

## **Method**

**Participants and procedure.** We recruited 529 Jewish-Israeli participants via a survey company. As we hypothesized an interaction, we calculated our required sample with a smaller effect size compared with previous studies,  $d = .025$ , an  $\alpha$  of .05 and power of .80. This showed that 505 participants were required. We dropped 43 participants who failed attention checks and another nine who completed the entire survey in less than 3 minutes.<sup>7</sup> This screening was consistent with that in previous studies, where no participants completed the study in such a short time. There remained 477 participants.

Participants were randomly assigned to one of the three conditions—single-evaluation,<sup>8</sup> analogy, or a contemplating condition—in which they were presented with the case of removed-harmdoing prior to evaluating ingroup harmdoing but were asked

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<sup>7</sup> The pattern of results remains the same and significant effects hold with these nine participants included in the analyses.

<sup>8</sup> In the single-evaluation condition, participants first evaluated ingroup harmdoing and then removed-harmdoing so that perceived similarity could be measured across all conditions. See the Supplemental Material for results for the effect of condition on judgments of removed-harmdoing.

only to contemplate the case of removed-harmdoing and did not see or respond to any items about it. We used the same manipulation materials depicting removed and ingroup harmdoing, as in previous studies.

**Measures.** Participants in the single-evaluation and analogy conditions rated wrongness of removed-harmdoing ( $\alpha = .92$ ) and empathic emotions toward removed victims ( $\alpha = .92$ ). Participants in the contemplating condition were instead presented with these instructions:

Think about the article that you just read. What do you think about what happened to Myo and his sons? What feelings did reading this article elicit? Please consider this case from a moral perspective. After 20 seconds you will be able to continue to the next page.

Across all conditions, we measured wrongness of ingroup harmdoing ( $\alpha = .91$ ), group-based critical emotions ( $\alpha = .87$ ), and endorsement of general moral principles ( $\alpha = .91$ ) with the same items as in previous studies.

To test endorsement of domain-specific moral principles as a mechanism, participants were asked to consider their moral principles and indicate their agreement with the statements, “It is morally wrong to punish family members for crimes of their relatives that they were not involved in” and “It is unfair to punish family members for crimes of their relatives which they did not support” ( $\alpha = .92$ ). We considered that simply asking participants about their principles may affect responses to ingroup harmdoing beyond the effect of the analogy. We therefore measured endorsement of principles after evaluation of ingroup harmdoing. We also included a measure of empathy toward the outgroup victims ( $\alpha = .92$ ), in which participants rated the extent of empathy and compassion they felt toward the Allyan family ( $\alpha = .92$ ). We included a measure of perceived similarity ( $\alpha = .88$ ) between the cases of harmdoing, as in Study 5, at the end of the study.

## **Results and Discussion**

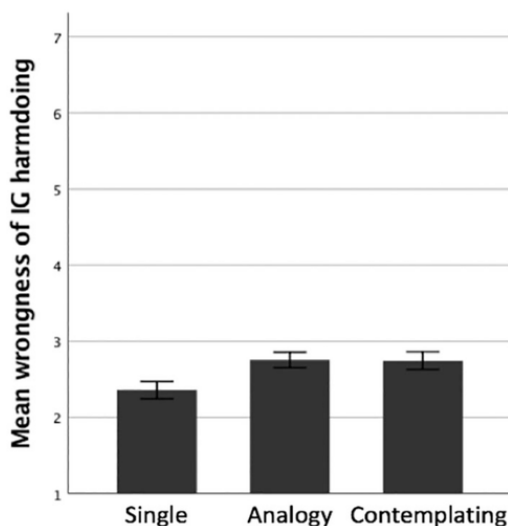
**Main analysis.** Table S10 in the Supplemental Material contains correlations per condition and Table S11 in the Supplemental Material contains correlations across conditions. As well as controlling for political ideology across all analysis, we also controlled for perceived similarity, as there were marginal differences between conditions. Those in the analogy condition perceived the two cases of harmdoing as less

similar than those in the contemplating condition ( $p = .061$ ). We tested whether perceived similarity moderated the effect of the analogy but found that it did not ( $p = .833$ ).

We then tested the effect of condition on evaluations of ingroup harmdoing. A one-way ANCOVA revealed an effect of condition on wrongness of ingroup harmdoing,  $F(2,469) = 4.06$ ,  $p = .018$ ,  $\eta_p^2 = .017$ . As in previous studies, compared with those in the single-evaluation condition ( $M = 2.36$ ,  $SE = 0.12$ ,  $95\% CI = [2.13, 2.58]$ ), participants in the analogy condition judged ingroup harmdoing as more wrong ( $M = 2.76$ ,  $SE = 0.10$ ,  $95\% CI = [2.56, 2.96]$ ,  $p = .010$ ), as did those in the contemplating condition ( $M = 2.75$ ,  $SE = 0.12$ ,  $95\% CI = [2.52, 2.98]$ ,  $p = .018$ ).<sup>9</sup> As expected, there was no significant difference between the analogy and contemplating conditions ( $p = .95$ ; Figure 3.6). Contrary to our hypothesis and results in most of the previous studies, there was no significant effect of condition on group-based critical emotions,  $F(2,469) = 0.307$ ,  $p = .736$ ,  $\eta_p^2 = .001$ .

**Figure 3.6**

Effect of condition on perceived wrongness of ingroup harmdoing, controlling for political ideology and perceived similarity, in Study 6.



Note. Error bars represent  $\pm SE$  of the mean.

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<sup>9</sup> Without controlling for perceived similarity, we found the same pattern of results for the effect of analogies on judgment of ingroup harmdoing; however, the difference between the single-evaluation condition and analogy condition became marginal ( $p = .076$ ), whereas the difference between the single-evaluation condition and contemplating condition remained significant ( $p = .021$ ).

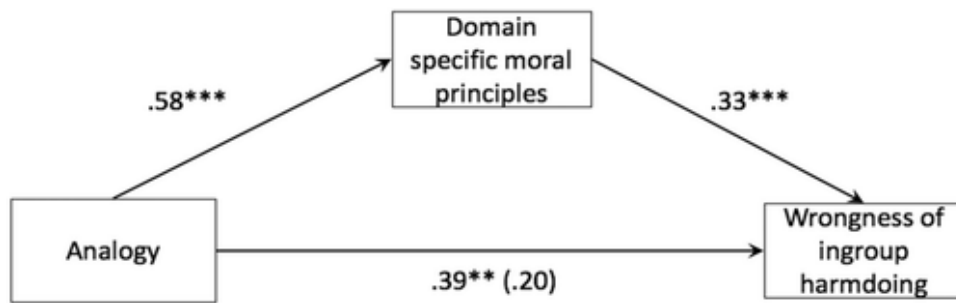
We then tested the effect of condition on potential mechanisms. First, we tested the effect of condition on domain-specific moral principles against collective punishment, and found a significant effect,  $F(2, 469) = 5.93$ ,  $p = .003$ ,  $\eta_p^2 = .025$ . Compared with those in the single-evaluation condition ( $M = 3.79$ ,  $SE = 0.14$ ,  $95\% CI = [3.51, 4.07]$ ), those in the analogy condition endorsed domain-specific moral principles more ( $M = 4.43$ ,  $SE = 0.13$ ,  $95\% CI = [4.18, 4.68]$ ,  $p = .001$ ), as did those in the contemplating condition ( $M = 4.27$ ,  $SE = 0.14$ ,  $95\% CI = [3.99, 4.55]$ ,  $p = .018$ ). There was no significant difference between the analogy and contemplating conditions on domain-specific moral principles ( $p = .41$ ). We next tested the effect of condition on general moral principles and found no significant effect ( $p = .20$ ), ruling this out as a candidate for mediation. Finally, we tested whether evaluating removed-harmdoing increased empathy toward the Allyan family members and found no such effect ( $p = .771$ ), ruling out empathy as a mechanism.

Next, we tested whether endorsing domain-specific moral principles mediated the effect of analogies on perceived wrongness of ingroup harmdoing using Hayes's (2013) PROCESS bootstrapping command with 5,000 iterations (model 4). We collapsed the analogy and contemplating conditions together, as there was no significant difference between these conditions and both differed significantly from the single-evaluation condition. We found that the addition of domain-specific principles in the model reduced the relative total effect of the analogy (vs. single evaluation) on perceived wrongness of ingroup harmdoing, and the indirect effect through domain-specific moral principles (effect = .20,  $SE = 0.06$ ,  $95\% CI = [0.08, 0.32]$ ) was significant. The model (Figure 3.7) confirms our hypothesis that considering a case of removed harmdoing, leads to greater endorsement of domain-specific moral principles, in turn leading to increased condemnation of similar ingroup harmdoing that violates those principles.

### **Figure 3.7**

Model testing the effect of condition (analogy vs. no analogy) on perceived wrongness of ingroup harmdoing through endorsement of domain-specific moral principles against collective punishment, for Study 6.





Note. Unstandardized coefficients displayed. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . (two-tailed tests)

In Study 6, we identified a mechanism for the effect of analogies. Our results demonstrated that the analogy operates via a cognitive process whereby the removed scenario encourages endorsement of moral principles specifically against the moral violation described, which are then applied to the evaluation of the similar case of ingroup harmdoing. Our findings also showed that the analogy was not effective due to the endorsement of general moral principles, but rather only endorsement of principles specifically related to the type of harmdoing depicted. We also found that contemplating removed-harmdoing, without responding to any items regarding it, was equally effective in leading participants to judge ingroup harmdoing as more wrong, ruling out an anchoring bias.

While the effect of the analogy on moral judgment was replicated, we again did not observe an effect on group-based critical emotions, suggesting that the analogy increases cognitive acknowledgment of ingroup harmdoing more consistently than emotional acknowledgment. Finally, we found that perceived similarity was not a moderator, suggesting that the effect does not rely on conscious perception of similarity. Previous research has shown that analogical inference from a source to a target case can occur implicitly, outside of conscious awareness (Day & Gentner, 2003; Gross & Greene, 2007), as may be the case here.

### General Discussion

Confronting people with transgressions committed by their group in the context of intergroup conflict is often met with resistance, as group members strive to combat the threat this poses to their moral image (Bandura, 2017). Ingroup members commonly justify ingroup transgressions and avoid corresponding feelings of guilt and shame (Leach et al., 2013). We examined whether analogies could be used to reduce the effect of biased processing on evaluations of ingroup harmdoing in the context of intractable conflict.

Specifically, we developed and tested the effectiveness of an intervention to increase acknowledgment of an ingroup transgression by evaluating an analogous case of harmdoing in a removed context, where there is no motivation to justify the conduct. We found, across six studies, that considering a case of removed-harmdoing led participants to perceive ingroup harmdoing as more morally wrong. In four of these studies, group-based critical emotions toward the ingroup transgression were stronger among those who were exposed to the analogy. These results provide converging evidence for the effectiveness of analogy in increasing acknowledgment of ingroup harmdoing in the context of intergroup conflict.

After initially testing the intervention (Study 1), we explored boundary conditions and mechanisms for the effect. We proceeded to show that this effect is not solely due to empathy arousal, increased endorsement of general moral principles, or moral anger (Studies 2, 3, and 6). We additionally ruled out two important factors as boundary conditions, showing that the analogy held even when anticipated (Study 4) and when the removed case of harmdoing depicted a more extreme transgression, albeit it was perceived as only slightly more extreme (Study 5). Finally, we tested the mechanism and showed that the analogy led to increased endorsement of moral principles against collective punishment of family members, in turn leading to increased condemnation of ingroup harmdoing. We also ruled out that the effect was due to numerical anchoring (Study 6).

These findings lay initial foundations for mapping the psychological processes involved in analogy-based interventions. They build on previous work demonstrating that the effect of motivated reasoning can be constrained when making judgments sequentially or alongside another case (e.g., Bruneau et al., 2018, 2019; Paharia et al., 2013). However, to the best of our knowledge, this is the first time that an analogy-based intervention has been shown to increase acknowledgment of ingroup harmdoing in intergroup or intractable conflict. We tested our main hypothesis several times and with different samples and found the same pattern of results among participants recruited via an online survey company and via student groups on social media (Study 5). Our findings are particularly noteworthy given that in the context of intractable conflict, individuals are particularly ready to defend the ingroup (Bar-Tal, 2013), conflict-related attitudes are extremely rigid and difficult to change (Halperin & Bar-Tal, 2011), and attempts to change attitudes are commonly met with resistance (Saguy et al., 2013). In such a context, there is arguably also less risk that results are due to demand characteristics.

A risk of analogy-based interventions is that they may lead to defensiveness. Drawing an analogy between ingroup actions and conduct that is generally perceived as immoral could be threatening for ingroup members and entrench existing attitudes. Perhaps surprisingly, the interventions we tested did not backfire, even when the analogy was anticipated or when the removed case of harmdoing was more extreme. Furthermore, we ran these studies over the course of 1 year, thus at times of varying intensity of the conflict, and were able to replicate results even during violent escalation. In each study, we tested several individual difference moderators, but none moderated the effect, suggesting the robustness of the intervention.

We found that our intervention promotes more objective reasoning, as principles endorsed after considering a removed case where one is impartial then inform evaluation of ingroup conduct, which is normally biased. The mere desire to be consistent is unlikely to be the driving force behind the effect, for two reasons. First, consistency motivation alone cannot explain why the participants in Study 4, who saw both cases of harmdoing side-by-side, and had the opportunity to condone both scenarios (while remaining consistent), chose instead to be as critical of ingroup harmdoing as those who first evaluated removed-harmdoing. Second, those with a stronger preference for consistency were not more affected by the manipulation (Studies 2 and 3). Taken together, this suggests that considering the case of removed-harmdoing changes one's way of thinking about ingroup harmdoing beyond consistency motivation, and that it actually leads to less motivated evaluation of the ingroup transgression.

Some questions remain as to how similar the source and target case must be in order for the analogy to be effective. In this work, we test the importance of similarity in domain (Study 3), in magnitude (Study 5), and perceived similarity between cases as a moderator (Study 6). We found that perceived similarity did not moderate the effect of the analogy, suggesting that the analogy may work beyond a conscious perception of the cases being similar. While evaluating whether a more extreme removed scenario affected wrongness judgments of ingroup harmdoing, it was seen as only slightly more extreme than the less extreme removed scenario, and it was not viewed as less moral. Thus, future work should investigate how sensitive the intervention may be to larger differences in extremity between the source and target cases. Finally, our results indicate that the analogy works best when the cases are in the same domain (Study 3). This is in line with the mechanism that we identified, namely, that the analogy is effective via stronger endorsement of principles, specifically regarding the domain of the harmdoing depicted.

Future work should continue to test the boundary conditions for the effect of analogies in this context. In our studies, we drew analogies between harmdoing in a removed context and ingroup harmdoing. It is possible that an analogy between conduct of the enemy group and that of the ingroup would raise defenses and produce a backlash effect, as it may serve as a reminder of victimhood (Wohl & Branscombe, 2008) or lead people to be particularly motivated to justify ingroup conduct to demonstrate their group's moral superiority. It is also possible that the analogy could have led to defensiveness if the comparison was more explicit, for example, if participants were asked to list similarities between the two cases of harmdoing. In addition, we focused on a type of harmdoing that is an official government policy and is therefore difficult to deny or dismiss as the acts of individuals. It remains to be tested whether analogy-based interventions could increase acknowledgment of types of harmdoing that governments rarely admit to, such as torture, where denial may be more prevalent. In our work, we found that analogies shape moral judgments of the particular case of ingroup harmdoing and associated group-based critical emotions. Future work should also test whether the effects of analogies on judgments of ingroup harmdoing could extend to additional downstream outcomes, such as support for apologies and reparations. Finally, work is needed to establish whether the effects of analogy-based interventions persist across time.

### **Final Thoughts**

Acknowledging ingroup harmdoing is pivotal in reducing ingroup transgressions and ultimately for intergroup reconciliation processes. It is therefore a key social goal for human rights and peace activists and educators. Analogy-based interventions have the potential not only to expand our theoretical understanding of conflict-related psychological processes and attitude change, but to assist practitioners who contend with the challenge of the many ingenious ways in which people avoid and disengage from their group's transgressions.

Supplementary information can be found online:

[https://journals.sagepub.com/doi/suppl/10.1177/0146167220908727/suppl\\_file/Reifen\\_Online\\_Appendix.pdf](https://journals.sagepub.com/doi/suppl/10.1177/0146167220908727/suppl_file/Reifen_Online_Appendix.pdf)

## **Chapter 4: Moral Elevation Increases Support for Humanitarian Policies, but Not Political Concessions, in Intractable Conflict**

Intractable conflicts, such as those between Israelis and Palestinians, Catholics and Protestants in Northern Ireland, or Hindus and Muslims in Kashmir, are characterized by their long-lasting, violent, and seemingly irresolvable nature (Bar-Tal, 2013). In the context of intractable conflict, ingroup members tend to have reduced sensitivity to the suffering of outgroup members (Levy et al., 2016), and intergroup relations are characterized by intense negative emotions (Bar-Tal, Halperin, & de Rivera 2007) and hostility (Cohen, Montoyo & Insko, 2006). One characteristic of modern conflicts, in particular, is the large numbers of civilian victims (Kaldor, 1999). Innocent civilians often bear the brunt of intergroup violence and are frequently and tragically, killed, injured, or denied access to basic necessities. One central question, therefore, is how to increase support among the ingroup for alleviating the suffering of outgroup civilians in the context of intractable conflict. A second distinct and important question is how to increase support for political concessions that address the core issues of the conflict and can ultimately help resolve it? Parties embroiled in intractable conflict are generally very reluctant to compromise (Coleman, 2003, Kelman, 2007). They tend to view their goals as completely opposed to those of the outgroup and perceive concessions to the outgroup as necessarily detrimental to the ingroup (Bar-Tal, 1998).

There is an existing body of work demonstrating that emotions play a central role in the management and resolution of intergroup conflict (for a review see Halperin & Reifen Tagar, 2017). Experiencing specific emotions can impact distinct policy preferences, hindering or helping intergroup relations. For example, work by Rossler, Cohen-Chen, and Halperin (2017), in the context of the Israeli-Palestinian conflict, showed that while empathy is associated with increased support for humanitarian policies, it is unrelated to conciliatory attitudes, and that conversely, hope is related to conciliatory attitudes, but not support for humanitarian policies. The goal of the current research is to examine the distinct effects of the relatively understudied emotional experience of moral elevation in the context of intractable conflict. We examine the influence of elevation on support for two distinct and important types of outgroup-

favorable policies - support for humanitarian policies and support for political concessions.

Moral elevation was first introduced into psychological research relatively recently by Jonathan Haidt (Haidt, 2000). The emotional experience of elevation is elicited by witnessing acts of exceptional goodness, such as altruism, generosity, and compassion. Moral elevation is characterized by feelings of being moved and inspired, and having sensations of warmth (Haidt, 2003). Witnessing acts of kindness sparks admiration for the individual carrying out the good deeds and motivates those who witness these deeds to emulate the moral agent and engage in acts of kindness, as well (Oliver, Hartman & Woolley, 2012). According to Haidt (2003) moral elevation can act as a “moral reset button,” (p. 286), increasing one's desire to help others. Existing research has found that moral elevation increases prosocial behavior in the interpersonal domain (for a review see Thomson & Siegel, 2017). Existing studies have demonstrated that experiencing moral elevation leads to a number of altruistic outcomes, such as volunteering (Cox, 2010; Schnall, Roper, & Fessler, 2010) and donating to charity (Van de Vyver & Abrams, 2015).

A small body of recent work suggests that moral elevation may also have a positive impact in the intergroup domain, although findings are mixed. For example, studies conducted in the United States, have shown that moral elevation increases Caucasian American participants' donations to charities that support African Americans (Freeman, Aquino, & McFerran, 2009), and increases feelings of connection with outgroups, thereby reducing prejudice towards them (Oliver et al., 2015). Work by Van de Vyver and Abrahams (2015), however, found that although elevation led Americans to donate more to a charity of their choice, it did not increase their willingness to take action in order to try to pressure the US to fund development work abroad to reduce global inequality. Another series of studies found that moral elevation reduced prejudice towards gay men, but that it did not impact racial prejudice (Lai, Haidt, & Nosek, 2014). These somewhat inconsistent findings may be partly due to the different outcomes that were measured in each study and suggest that additional research is required to gain a deeper understanding of the specific effects of moral elevation on intergroup relations. Moreover, whether moral elevation can impact outgroup-favorable policies in intractable conflict where outgroup members are often perceived as not just different from the ingroup, but as enemies, has yet to be tested.

We propose examining whether moral elevation can increase support for outgroup-favorable policies in the context of intergroup protracted conflict, and specifically in the context of the Israeli-Palestinian conflict. We hypothesized that support for humanitarian policies and support for concessions would be differentially impacted by moral elevation. Our expectations are derived from an appraisal tendency approach that maintains that emotions amplify the importance of unique sociomoral concerns (Horberg, Oveis, & Keltner, 2011). For example, disgust amplifies purity concerns and anger amplifies concern about injustice (Horberg, Oveis, Keltner, & Cohen, 2009). Research suggests that moral elevation amplifies concern with moral virtue – when experiencing moral elevation, individuals view morally good actions as being even more morally good (Klebel, Dziobek & Diessner, 2019). Considering this, we expect that moral elevation would lead to increased support for government policies that are considered to be related to moral goodness.

Humanitarian policies refer to the treatment of civilians in conflict and involve alleviating the suffering and maintaining the dignity of innocent people. They are largely viewed as a universal obligation and a moral good (EUPRHA Report, 2013). As such, we expected that moral elevation would lead to increased support for humanitarian policies towards outgroup members, in this case, Palestinians. At the same time, we did not expect moral elevation to have an effect on all constructive policies in the context of the Israeli-Palestinian conflict. Unlike humanitarian policies that are typically perceived as morally good, political concessions are often viewed in pragmatic, non-moral terms (Downs, 1957). Research in the context of intractable conflict suggests that support for concessions is driven by beliefs about the costs concessions entail for the ingroup (Hirschberger, Ein-Dor, Leidner, & Saguy, 2016). We therefore expected that the effects of elevation would not extend to support for concessions.

### **The current research**

The goal of this work was to examine the effects of moral elevation on support for distinct outgroup-favorable policies in the challenging context of the Israeli-Palestinian intractable conflict, with Jewish-Israeli participants. The Israeli-Palestinian conflict has been ongoing for over a century. Civilians are the primary victims of the conflict, and in the last two decades, they constitute the majority of those who have been killed (B'Tselem, n.d.). Palestinian civilians, especially those in Gaza, also suffer from restrictions on freedom of movement, shortages of basic medication, and an electricity crisis, with power only being provided for a few hours each day (ReliefWeb, 2018).

Despite multiple peace talks and wide acknowledgment of what the contours of an Israeli-Palestinian peace deal would ultimately look like, there is substantial objection to compromise (Bar-Tal et al., 2010, Maoz and McCauley, 2005). Understanding what may increase support for humanitarian policies (e.g. medical aid, supplying electricity) and support for concession (e.g. withdrawing from land) are thus both important domains of inquiry.

In Study 1, we tested whether moral elevation (vs. amusement) affects support for humanitarian policies and support for political concessions towards Palestinians. We also tested increased positive attitudes towards the Palestinians as a potential mediator for the effect of elevation on humanitarian policies. Following this, we ran a pilot study to explicitly test our underlying assumption that humanitarian policies, but not political concessions, are perceived as moral obligations. In Study 2, we tested our hypothesis again, and added in a neutral control condition to establish that effects are due to the positive effects of elevation. We also tested whether increased moral concern towards others plays a mediating role in the relationship between elevation and humanitarian policy support. Study 3 was a higher-powered preregistered replication of Study 2. In these studies, we report all measures, manipulations and exclusions. Power analyses were used to determine the sample size for each study and all data collection occurred prior to data analysis. Data for all studies is available

at: [https://osf.io/puydw/?view\\_only=7d605173381c49e5a49a78e021f28ecf](https://osf.io/puydw/?view_only=7d605173381c49e5a49a78e021f28ecf)

## Study 1

### Method

Our goal of Study 1 was to test our expectation that elevation (vs. amusement) would lead to increased support for humanitarian policies, but not political concessions. We also aimed to test whether positive attitudes towards Palestinians may mediate the relationship between elevation and support for humanitarian policies.

**Participants and procedure.** We conducted a power analysis using G\*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009), and found that obtaining a small/medium effect size ( $d = 0.40$ ), with an alpha of 0.05 and power of 0.8 would require 200 participants. We recruited 264 Jewish-Israeli participants on online platforms, primarily in student groups on social media. After dropping 1 participant who identified as Christian, 5 participants who reported not having watched the video clip, and another 19 whose responses indicated a lack of attention (18 based on failed memory check



questions about the video clip and 1 based on comments), 239 participants remained: Age:  $M = 27.20$ ,  $SD = 7.27$ ; Gender: 54 men and 184 women (1 missing); Political ideology: leftists = 77, centrists = 70, rightists = 87 (5 missing). This sample had a disproportionately high number of leftists compared to the general Jewish-Israeli population in which self-identified leftists constitute only around 8% (Pew, 2016).

As a cover story, participants were told that they would be taking part in a study about language and emotional memory. Participants were asked to rate their level of proficiency in several foreign languages and throughout the study were asked memory questions about the respective videos that they watched, which we then used as attention checks for screening. As in previous research studying the effects of moral elevation, participants were randomly assigned to either a moral elevation condition or an amusement condition, which served as a positive emotion control condition (Ellithorpe, Ewoldsen, & Oliver, 2015; Schnall et al., 2010; Silvers & Haidt, 2008). Those in the moral elevation condition watched a morally elevating video clip ([https://youtu.be/RKyDL\\_rAYfo](https://youtu.be/RKyDL_rAYfo)) outside the context of the Israeli-Palestinian conflict, depicting a man doing a series of kind actions, such as giving charity to a woman and child on the street and leaving food for an elderly neighbor. Participants in the amusement condition watched a funny music video ([https://youtu.be/yQHW5jNR\\_kg](https://youtu.be/yQHW5jNR_kg)) of a man dancing and singing, which was meant to elicit the positive, yet non-moral emotional, experience of amusement. To avoid introducing confounding factors, the main characters in both videos were Southeast Asian men. Of note, these videos had no political content. After watching the video clip, participants answered a short survey in Hebrew. Finally, participants were debriefed and informed of the true goals of the study.

**Measures.** In all studies, participants responded to items on a 1 (not at all) – 7 (very much) scale unless otherwise stated. Participants reported their gender (1 = man, 2 = woman), age, religion, religiosity, and level of education. Political ideology was measured using one item (How would you define your political stance?) with answers ranging from 1 (extreme left) – 7 (extreme right).

**Manipulation check.** To measure the level of moral elevation elicited by the respective video clips, participants responded to nine items capturing the experience of moral elevation, rating the extent to which they felt spiritually uplifted, moved, inspired, touched, expansion in the chest, positive sensations, tears in the eyes, a lump in the throat, and compassion towards others,  $\alpha = 0.95$ ). Two items assessed the extent of amusement experienced while watching the video clips (entertained, humored  $\alpha = 0.94$ ).

**Positive attitudes towards Palestinians.** This measure comprised 16 items from several existing scales to capture positive attitudes towards Palestinians ( $\alpha = 0.93$ ).<sup>10</sup> This measure had high internal consistency, and therefore, we employed it, rather than analyzing each scale separately, to reduce the number of tests and therefore decrease the likelihood of Type I error.<sup>11</sup>

**Support for humanitarian policies.** Participants reported the extent to which they supported the following humanitarian policies towards Palestinians (providing treatment for Palestinian children in Israeli hospitals, restricting electricity to Palestinians in times of conflict (reversed), and using maximal force to break up all Palestinian protests (reversed),  $\alpha = 0.80$ ).

**Support for political concessions.** Participants reported the extent to which they supported Israel making the following concessions (dividing Jerusalem, withdrawing to the 1967 borders, and recognizing Israel's responsibility for compensating Palestinian refugees,  $\alpha = 0.80$ ). These three items refer to core issues of the Israeli-Palestinian conflict and were previously used by Kudish, Cohen-Chen, and Halperin (2015).

## Results

Means, standard deviations, and correlations among variables are presented in Table 4.1.

**Table 4.1**

Means, standard deviations, and correlations for Study 1.

Variable	M	SD	1	2	3	4	5	6
1. Support for humanitarian policies	4.95	1.59						
2. Support for concessions	3.08	1.69	0.58**					
3. Positive attitudes towards Palestinians	3.91	1.18	0.74**	0.60**				
4. Political ideology	4.10	1.26	-0.60**	-0.65**	-0.65**			
5. Age	27.20	7.27	0.22**	0.18**	0.22**	-0.14*		
6. Gender	1.77	0.42	0.05	0.09	-0.01	-0.13*	-0.14*	
7. Education	4.25	1.02	0.11	0.13*	0.15*	-0.08	0.31**	-0.04

M and SD are used to represent mean and standard deviation, respectively.

\* Indicates  $p < .05$ . \*\* Indicates  $p < .01$ .

**Initial analysis. Manipulation check.** In order to test whether the video clips watched in each condition elicited moral elevation and amusement as expected, we ran two separate t-tests. We found that participants in the moral elevation condition experienced higher levels of moral elevation ( $M = 4.73$ ,  $SD = 1.17$ ) compared with those

<sup>11</sup> Additional variables that were included for exploratory purposes in both studies are presented in supplementary materials.

in the amusement condition ( $M = 1.87$ ,  $SD = 0.69$ ;  $t(237) = 22.92$ ,  $p < .001$ , Cohen's  $d = 2.98$ ). Participants in the amusement condition experienced more amusement ( $M = 4.11$ ,  $SD = 2.00$ ) compared with those in the elevation condition ( $M = 2.55$ ,  $SD = 1.32$ ;  $t(237) = 7.18$ ,  $p < .001$ , Cohen's  $d = 0.92$ ), thus indicating these emotional experiences were successfully manipulated.

We also sought to further rule out the possibility that our results were driven by positive affect unrelated to elevation. For this, we performed an exploratory factor analysis (using varimax rotation) on all the positive-affect manipulation-check items. The factor analysis revealed two factors, with the elevation items loading on one factor (above 0.72) and amusement items loading on the other factor (above 0.93), indicating that the amusement items represent positive affect that is unrelated to elevation. We therefore controlled for the amusement measure in our main analysis.

**Confirmatory factor analysis of policy items.** We proposed that humanitarian policies and political concessions are two distinct categories of policy preferences. In order to verify the two-factor model and compare it to a one-factor model, we conducted a confirmatory factor analysis (CFA) on policy items, to examine the model fit. We assigned items to a grouping descriptively labeled as “humanitarian policies” or a grouping labeled as “political concessions.” We found that the two-factor model ( $X^2(8) = 35.61$ ,  $p < .001$ , root mean square error of approximation (RMSEA) = 0.12, Tucker-Lewis Index (TLI) = 0.92, Comparative Fit Index (CFI) = 0.95, Standardized Root Mean Square Residual (SRMR) = 0.06) achieved a significantly better fit than a single-factor model ( $X^2(9) = 135.06$ ,  $p < .001$ , RMSEA = 0.24, TLI = 0.65, CFI = 0.79, SRMR = 0.09).

**Main analysis.** Across our main analysis, in addition to controlling for amusement, we controlled for political ideology given its centrality in predicting policy preferences in the context of the Israeli-Palestinian conflict (Bar-Tal, 2013). We also controlled for the demographic variables of age and education because they were also significantly correlated with policy preferences. We controlled for these variables across all studies.

**The effect of moral elevation on positive attitudes towards Palestinians.** We found a significant main effect of moral elevation (vs. amusement) on positive attitudes towards Palestinians,  $F(1, 218) = 5.97$ ,  $p = .015$ ,  $\eta^2 = 0.027$ ), with those in the elevation condition reporting higher levels of positive attitudes towards Palestinians

( $M = 4.09$ ,  $SE = 0.088$ , 95% CI [3.91, 4.26]) than those in the amusement condition ( $M = 3.77$ ,  $SE = 0.087$  [3.59, 3.94]).

**The effect of moral elevation on policy preferences.** Our analysis revealed that the effect of condition on support for humanitarian policies, although in the expected direction, was below the threshold for significance,  $F(1, 217) = 2.76$ ,  $\eta^2 = 0.013$ , elevation:  $M = 5.14$ ,  $SE = 0.13$  CI [4.89, 5.38], amusement:  $M = 4.82$ ,  $SE = 0.13$ , CI [4.58, 5.07],  $p = .098$ . There was no main effect of condition on support for political concessions  $F(1, 216) = 0.15$ ,  $p = .704$ ,  $\eta^2 = 0.001$ . No demographic variables measured nor political ideology, moderated the effects of moral elevation on either of the types of policy support. We did not test the mediating role of attitudes in this study, as there was no significant main effect of elevation on humanitarian policy support.

## **Discussion**

We found that moral elevation did not significantly affect support for humanitarian policies ( $p = .098$ ), nor support for political concessions ( $p = .704$ ). However, we chose to explore our hypothesis further for the following reasons: 1. the effect of elevation on support for humanitarian policies was in the expected direction, even though the  $p$ -value was of low evidential value; 2. experiencing moral elevation did significantly increase positive attitudes towards Palestinians, suggesting this emotional state may be influential in this domain; and 3. the sample comprised students and was not representative of the Israeli population, including in terms of political orientation. We therefore decided to test again whether moral elevation increases support for humanitarian policies, but not political concessions on a representative sample.

Results of the CFA in which humanitarian policies and political concessions were two separate factors fit the data better than when they were loaded together on a single factor. Although it was therefore best to treat them as two separate constructs as hypothesized, it should be noted that the two-factor model was not a very good fit to the data. We thus aimed to better affirm the distinctiveness of these scales.

### **Test of the Policy Measure**

Our hypothesis was built on the premise that experiencing moral elevation would lead to increased support for policies that are considered to be imbued with moral imperative, but not for policies that are considered outside of the moral domain. Before continuing to examine this, we wanted to test our underlying assumption that

humanitarian policies are perceived to be a moral obligation, whereas political concessions are not.

We recruited 50 participants on social media. We excluded one participant who reported not being Jewish as well as two participants who did not complete the study ( $N = 47$ , Age:  $M = 31.87$ ,  $SD = 12.08$ ; Gender: Men = 17, Women = 30; Political ideology: leftists = 21, centrists = 4, rightists = 22).

To test whether humanitarian policies and political concessions differed on the dimension of perceived morality, participants were asked to imagine a person who cared about being moral and rate the extent to which they thought that this person would believe that Israel has a moral obligation to implement each of the policies on a scale of 1 (no moral obligation) to 7 (strong moral obligation). Participants were presented with the list of policy items, in a randomized order.<sup>12</sup>

We added three policy items to the humanitarian policy measure from Study 1 to improve the two-factor model, which we planned to use as our measure in Study 2. These items were: allowing travel between the West Bank and Gaza so that Palestinians could visit sick relatives and attend funerals, allowing farmers to export goods, and facilitating food and medical aid to citizens in times of conflict. We excluded the item measuring support for using maximal force to break up all Palestinian protests so that the policies included strictly focused on helping civilians. For the purposes of this test, we unreversed the only reversed-scored item in the humanitarian policy measure, so that all items were examples of humanitarian policies (and not harm). The humanitarian policy items were diverse and represented current issues of concern in the Israeli-Palestinian conflict including medical treatment, food aid, access to electricity during war, livelihood, and freedom of movement. We did not adjust the measure of support for political concessions as the items addressed the core issues in the Israeli-Palestinian conflict from an Israeli perspective (e.g. Kudish et al., 2015; Reifen Tagar, Morgan, Halperin, & Skitka, 2014).

To test whether humanitarian policies were perceived to be more of a moral obligation than concessions, we created a measure of perceived moral obligation for humanitarian policies ( $\alpha = 0.86$ ) and perceived moral obligation for political concessions

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<sup>12</sup> We also measured the extent to which the items were perceived as threatening to ingroup interests in order to test whether the two groups of policies were perceived as distinct in their moral imperative above and beyond the extent to which they were perceived as threatening. We find that even once controlling for threat perceptions of humanitarian policies and political concessions, humanitarian policies were perceived as significantly higher in moral imperative than concessions. See details in supplementary materials.

( $\alpha = 0.82$ ). We then conducted a paired sample t-test and found that participants perceived there to be a significantly higher moral obligation for humanitarian policies ( $M = 5.42$ ,  $SD = 1.36$ ) compared with concessions ( $M = 3.35$ ,  $SD = 1.65$ ),  $t(46) = 12.44$ ,  $p < .001$ . A significant difference in mean scores was observed among both leftists and rightists. Moreover, when examining the items individually, we found that the mean of each humanitarian policy item was higher than the mean of each concession item. This test confirmed our assumption that humanitarian policies, but not concessions, are perceived to be imbued with moral imperative.

## Study 2

The goal of Study 2 was to test again the differential effects of moral elevation on humanitarian policies and political concessions using a more representative sample of the Israeli population, rather than mainly students. We also added a neutral control condition in order to assess baseline policy preferences, to confirm that moral elevation increases support for humanitarian policies, rather than amusement reducing such support. Furthermore, we tested an additional mediator, alongside increased positive attitudes towards Palestinians. In line with findings showing that moral elevation amplifies concern about moral virtue (Klebl et al., 2019) and leads individuals to care more about others and want to be a better person (e.g., Aquino, McFerran, & Laven, 2011), we hypothesized that increased moral concern for others, would mediate the effect of elevation on support for humanitarian policies towards Palestinians.

### Method

**Participants and procedure.** As in Study 1, we conducted a power analysis and found that obtaining a small/medium effect size ( $d = 0.40$ ), with an alpha of 0.05 and power of 0.8 for three groups, would require 246 participants. We aimed to recruit 250 participants via an online survey company and were given data for 259 participants (Age:  $M = 42.55$ ,  $SD = 15.77$ ; Gender: 133 men, 122 women (4 missing); Political ideology: leftists = 52, centrists = 66, and rightists = 137 rightists, (4 missing)). This sample was more representative of the Jewish-Israeli population, in terms of political ideology, compared with the primarily student sample in Study 1 (Pew, 2016). Participants were randomly assigned to an elevation, amusement, or control condition. Those in the elevation and amusement conditions watched the same video clips as in Study 1. In the neutral control condition, participants watched a video about hairstyles also featuring a South-East Asian man (<http://y2u.be/8MdbRekJzWw>). In this study, we

introduced stricter screening criteria at the outset. Participants could not begin the survey before the video had finished and they had to answer two questions about the video clip correctly, otherwise they were automatically dropped by the survey company. We had an additional memory check question in the middle of the survey that was part of the cover story and also aimed to serve as a manipulation prime, asking participants to identify an image from the video clip that they watched. No participants answered this question incorrectly and therefore no further participants were excluded.

**Measures.** We included a manipulation check, measuring the level of elevation ( $\alpha = 0.96$ ) and amusement ( $\alpha = 0.94$ ) experienced. We measured positive attitudes towards Palestinians ( $\alpha = 0.94$ ), support for humanitarian policies ( $\alpha = 0.85$ ) and support for political concessions ( $\alpha = 0.77$ ). Measures were similar to Study 1, but slight modifications were made and as mentioned above, we adapted the support for humanitarian policies measure. We also measured the level of happiness elicited by the video clips, as some work suggest that happiness is a positive affect item distinct from elevation (e.g., Algoe & Haidt, 2009; Schnall et al., 2010) (all items are presented in supplementary materials). The order in which participants were presented with humanitarian policies and support for concessions was randomized.

**Moral concern for others.** This measure comprised 9 items ( $\alpha = 0.83$ ) that encapsulated how much participants cared about other people in the world, generally, and doing good for humanity. Included in this measure were self-transcendence values of benevolence (taking care of the well-being of people with whom one is in touch. Being responsible, loyal, honest and forgiving) and universalism (understanding and accepting the other, while caring for the well-being of all human beings and equality. Being intellectually and emotionally open to the environment and taking care of the environment) (Sekerdej & Roccas, 2016, based on Schwartz (1992); the five items from the moral identity centrality internalization scale, capturing the degree to which morality is central to the self-concept (e.g., To what extent do you aspire to be like someone who is caring, compassionate, fair, generous, helpful, moral, sincere, and kind-hearted? Aquino & Reed, 2002), and two items that were adapted from the identification with all humanity scale (e.g., “How much would you say you care (feel upset, want to help) when bad things happen to people anywhere in the world?” McFarland, Webb, & Brown, 2012) (the full measure is presented in supplementary materials). We combined these items to create this measure rather than analyzing each scale separately as these items conceptually related to moral concern for others and the measure had high internal

consistency, thus allowing us to reduce the number of tests on similar scales and decrease the likelihood of Type I error.

## Results

Means, standard deviations, and correlations among variables are presented in Table 2.

**Table 4.2**

Means, standard deviations, and correlations for Study 2.

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Support for humanitarian policies	4.11	1.60							
2. Support for concessions	2.72	1.66	0.63**						
3. Moral concern for others	5.51	0.71	0.42**	0.22**					
4. Positive attitudes towards Palestinians	3.38	1.24	0.68**	0.58**	0.33**				
5. Political ideology	4.65	1.35	-0.64**	-0.69**	-0.26**	-0.64**			
6. Age	42.55	15.77	0.36**	0.31**	0.15*	0.33**	-0.32**		
7. Gender	1.48	0.50	0.09	-0.04	0.17**	0.04	-0.03	-0.01	
8. Education	3.55	1.52	0.08	0.08	-0.11	0.10	-0.12	0.17**	0.02

*M* and *SD* are used to represent mean and standard deviation, respectively.

\* Indicates  $p < .05$ . \*\* Indicates  $p < .01$ .

### Initial analysis.

**Manipulation check.** We first conducted an ANOVA in order to check whether the video clips watched in each condition elicited the expected emotional response. We found a significant difference between conditions in the extent of moral elevation experienced  $F(2,256) = 254.75, p < .001, \eta^2 = 0.67$ . Participants in the elevation condition experienced higher levels of moral elevation ( $M = 5.44, SD = 1.34$ ) compared with those in the amusement condition ( $M = 1.81, SD = 1.08, p < .001$ ) and those in the control condition ( $M = 2.13, SD = 1.16, p < .001$ ). There was no significant difference in elevation experienced between those in the amusement and control conditions ( $p = .089$ ). We also found that the extent of amusement experienced differed significantly between conditions  $F(2,256) = 7.07, p = .001, \eta^2 = 0.05$ . Those in the amusement condition experienced significantly more amusement ( $M = 3.42, SD = 1.96$ ) than those in the elevation condition ( $M = 2.52, SD = 1.35, p < .001$ ) and those in the control condition ( $M = 2.73, SD = 1.75, p = .001$ ). There was no difference in the amount of amusement experienced between the elevation and control condition ( $p = .433$ ). As in Study 1, as expected, our moral elevation manipulation aroused more moral elevation and the amusement manipulation aroused more amusement.



We then conducted EFA (using varimax rotation) on the manipulation check items. Two factors were extracted, with the elevation items loading on to the first factor (above 0.86) and the amusement items loading on the second factor (above 0.91). Surprisingly, happiness had a high loading on the first factor (0.73). Although happiness factored with elevation we did not include it in the elevation manipulation check measure, as it is conceptually distinct (Algoe & Haidt, 2009), and we therefore did not include the item in our analysis. However, when included in the elevation manipulation check measure, results remained significant. As in Study 1, we controlled for positive affect that did not factor with elevation, namely, the amusement measure.

**Confirmatory factor analysis of policy items.** We conducted CFA to ensure that humanitarian policies and political concessions were distinct and the model suggested satisfactory model fit ( $X^2(19) = 63.09$ ,  $p < .001$ ,  $RMSEA = 0.10$ ,  $TLI = 0.94$ ,  $CFI = 0.96$ ,  $SRMR = 0.07$ ). The two factor model achieved a significantly better fit than a single-factor model ( $X^2(20) = 169.03$ ,  $p < .001$ ,  $RMSEA = 0.17$ ,  $TLI = 0.79$ ,  $CFI = 0.85$ ,  $SRMR = 0.08$ ). The data thus provided support for our assumption that these two policy types are distinct.

#### **Main analysis.**

#### **The effect of moral elevation on positive attitudes towards Palestinians and moral concern for others.**

We tested the effects of moral elevation on the hypothesized mediators. There was a significant difference between condition on positive attitudes towards Palestinians  $F(2, 247) = 3.70$ ,  $p = .026$ ,  $\eta^2 = 0.03$ . Those in the elevation condition ( $M = 3.48$ ,  $SE = 0.10$ , 95% CI [3.29, 3.67]) and those in the amusement condition ( $M = 3.51$ ,  $SE = 0.10$ , 95% CI [3.30, 3.70]) had more positive attitudes towards Palestinians than those in the control condition ( $M = 3.13$ ,  $SE = 0.11$ , 95% CI [2.91, 3.35],  $p = .020$  and  $p = .015$  respectively). There was, however, no significant difference between those in the elevation and amusement conditions in positive attitudes towards Palestinians ( $p = .860$ ), thus not replicating results of Study 1.

We then tested the effects of elevation on moral concern for others. There was a significant difference between condition on moral concern for others,  $F(2, 247) = 5.58$ ,  $p = .004$ ,  $\eta^2 = 0.04$ , as expected. Those in the moral elevation condition had more moral concern for human beings ( $M = 5.70$ ,  $SE = 0.06$ , 95% CI [5.58, 5.83]) than those in the amusement condition ( $M = 5.44$ ,  $SE = 0.07$ , 95% CI [5.31, 5.57],  $p = .006$ ) and control condition ( $M = 5.42$ ,  $SE = 0.07$ , 95% CI [5.27, 5.56],  $p = .004$ ). There

was no difference in moral concern between the control and amusement conditions ( $p = .807$ ).

**The effect of elevation on policy preferences.** We next tested the effect of moral elevation on support for humanitarian policies and found a significant effect of condition  $F(2, 247) = 3.18, p = .044, \eta^2 = 0.025$ . Those in the moral elevation condition had significantly more support for humanitarian policies ( $M = 4.37, SE = 0.13, 95\% CI [4.12, 4.61]$ ) than those in the amusement condition ( $M = 4.00, SE = 0.13, 95\% CI [3.74, 4.25], p = .042$ ) and the control condition ( $M = 3.94, SE = 0.14, 95\% CI [3.66, 4.22], p = .026$ ). There was no difference between amusement and control conditions in support for humanitarian policies. We next tested the effect of elevation on support for political concessions and found no differences between any conditions  $F(2, 247) = 0.455, p = .635, \eta^2 = 0.00$ . Neither political ideology nor any other demographic variables measured, moderated the relationship between condition and policy support measures.

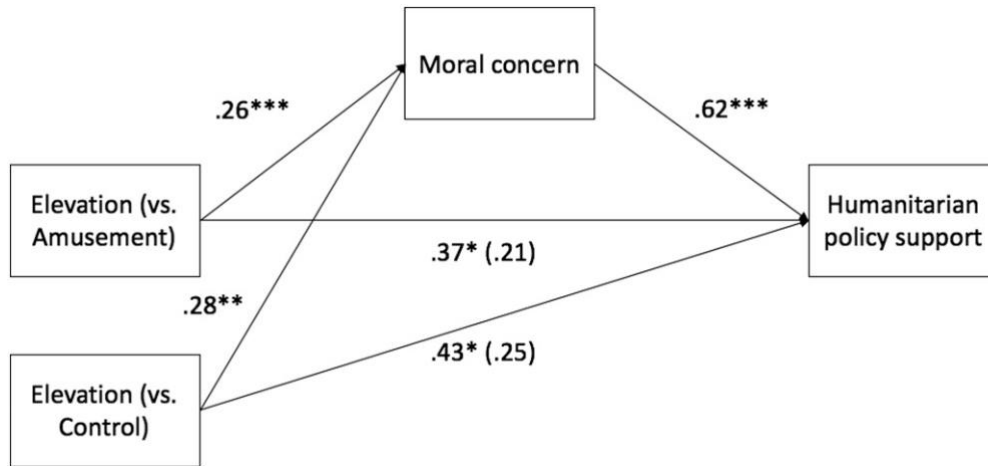
**The mediating role of moral concern for others.** We next examined whether the association between moral elevation and support for humanitarian policies could be explained by increased moral concern using Hayes' PROCESS (2013) bootstrapping command with 5000 iterations (model 4), controlling for political ideology, age, and education, and amusement, as in previous analyses. We conducted the mediation analysis using indicator coding: the moral elevation condition was coded as the reference condition and was compared to the amusement condition and control separately. The analysis revealed that the relative indirect effect of moral elevation (vs. amusement) on support for humanitarian policies through moral concern was significant, effect = 0.16,  $SE = 0.07, 95\% CI = [0.04, 0.31]$ . Similarly, the relative indirect effect of moral elevation (vs. control) on support for humanitarian policies through moral concern was significant, effect = 0.18,  $SE = 0.07, 95\% CI = [0.05, 0.32]$ . These results provide evidence in support of the proposed model (see Figure. 1).<sup>13</sup>

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<sup>13</sup> We note that the mediational analyses presented in this paper cannot rule out confounding factors or the possibility of other valid models (Fiedler, Harris, & Schott, 2018). We do, however, believe that the model we propose has a solid theoretical basis.

**Figure 4.1**

Moral concern for others as a mediator of the effect of moral elevation on support for humanitarian policies, while controlling for political ideology, age, education, and amusement (Study 2).



Notes. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

## Discussion

Results of Study 2 showed that moral elevation increased support for humanitarian policies towards outgroup members, but did not alter support for political concessions, in the context of intergroup conflict. Moral elevation did not lead participants to have more positive attitudes towards Palestinians compared with experiencing amusement, as it did in Study 1. However, this study provided support for a different mechanism by demonstrating that moral concern for others mediated the effect of moral elevation on support for humanitarian policies. The addition of a neutral emotion control condition in this study, revealed that moral elevation was driving the observed effects, as there were no differences on support for humanitarian policies and moral concern between the amusement and control condition, but the elevation condition differed from both.

## Study 3

Our goal was to conduct a [preregistered](https://aspredicted.org/34tv3.pdf) replication to strengthen confidence in our finding that elevation (vs. amusement) increases support for humanitarian policies, but not concessions, and that this effect is mediated through moral concern for others. We preregistered the study on AsPredicted (<https://aspredicted.org/34tv3.pdf>). (We used the same experimental design and materials as in Study 2, except that we did not include a

neutral control condition as our previous results clearly indicated that elevation was driving the effect.

## Method

**Participants and procedure.** We recruited 305 participants from an online survey company (we requested 300 as per our preregistration, but five extra participated in the study). A power analysis using a smaller effect size than in our previous calculations, ( $d = 0.35$ ), with an alpha of 0.05 and power of 0.8, indicated that 260 participants were required. We included one additional attention check to further ensure that our sample comprised participants who were paying full attention. After screening out 8 participants who failed to answer the attentions check questions correctly, 297 participants remained (Age:  $M = 43.67$ ,  $SD = 16.86$ ; Gender: 159 men (3 missing), 135 women (3 missing); Political ideology: leftists = 54, centrists = 91, and rightists = 157 rightists (3 missing). Participants were representative of the Jewish-Israeli public, including on the important dimension of political ideology. Participants were randomly assigned to one of two conditions: moral elevation or amusement, and watched the respective video clip and answered the survey.

**Measures.** We included a manipulation check, to measure elevation ( $\alpha = 0.97$ ) and amusement ( $\alpha = 0.94$ ), and we measured happiness with one item. We measured positive attitudes towards Palestinians ( $\alpha = 0.92$ ), moral concern for others ( $\alpha = 0.87$ ), support for humanitarian policies ( $\alpha = 0.84$ ) and support for political concessions ( $\alpha = 0.74$ ), and demographics.

## Results

Means, standard deviations, and correlations among variables are presented in [Table 3](#).

**Table 4.3**

Means, standard deviations, and correlations for Study 4.3

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Support for humanitarian policies	4.34	1.57							
2. Support for concessions	2.67	1.60	0.56**						
3. Moral concern for others	5.57	0.95	0.23**	0.07					
4. Positive attitudes towards Palestinians	3.84	1.27	0.67**	0.46**	0.16**				
5. Political ideology	4.56	1.23	-0.55**	-0.67**	-0.08	-0.51**			
6. Age	43.67	16.86	0.21**	0.20**	-0.02	0.13*	-0.22**		
7. Gender	1.46	0.50	0.09	-0.04	0.16**	0.17**	-0.07	-0.02	
8. Education	3.88	1.47	0.16**	0.16**	-0.02	0.13*	-0.14*	0.24**	0.05

*M* and *SD* are used to represent mean and standard deviation, respectively.

\* Indicates  $p < .05$ . \*\* Indicates  $p < .01$ .

### **Initial results.**

**Manipulation check.** A t-test showed that participants in the moral elevation condition experienced higher levels of moral elevation ( $M = 5.55$ ,  $SD = 1.25$ ) compared with those in the amusement condition ( $M = 1.81$ ,  $SD = 1.03$ ;  $t(295) = 28.22$ , Cohen's  $d = 3.27$ ,  $p < .001$ ). Participants in the amusement condition experienced more amusement ( $M = 3.18$ ,  $SD = 1.81$ ) compared with those in the elevation condition ( $M = 2.48$ ,  $SD = 1.36$ ;  $t(295) = 3.79$ , Cohen's  $d = 0.44$ ,  $p < .001$ ), thus, again, showing that the desired emotional experiences were successfully manipulated by each video clip.<sup>14</sup>

### **Main analysis.**

**The effect of moral elevation on positive attitudes towards Palestinians and moral concern for others.** There was no significant difference in positive attitudes towards Palestinians between those in the elevation and amusement conditions  $F(1, 288) = 0.98$ ,  $p = .324$ ,  $\eta^2 = 0.00$ .

There was a significant difference between condition in moral concern for others  $F(1, 288) = 17.98$ ,  $p < .001$ ,  $\eta^2 = 0.06$ , with those in the elevation condition expressing more concern for others ( $M = 5.81$ ,  $SE = 0.08$ ,  $CI [5.65, 5.96]$ ) than those in the amusement condition ( $M = 5.33$ ,  $SE = 0.08$ ,  $CI [5.18, 5.49]$ ), replicating Study 2 findings.

**The effect of elevation on policy preferences.** We found that those in the elevation condition ( $M = 4.53$ ,  $SE = 0.11$ ,  $95\% CI [4.31, 4.74]$ ) had stronger support for humanitarian policies than those in the amusement condition ( $M = 4.16$ ,  $SE = 0.11$ ,  $95\% CI [3.95, 4.38]$ ),  $F(1, 288) = 5.46$ ,  $p = .02$ ,  $\eta^2 = 0.02$ , as hypothesized. As in previous studies, there was no effect of condition on political concessions ( $F(1, 288) = 0.398$ ,  $p = .529$ ,  $\eta^2 = 0.00$ ). Neither political ideology nor any demographic variables measured, moderated the relationship between condition and policy support measures.<sup>15</sup>

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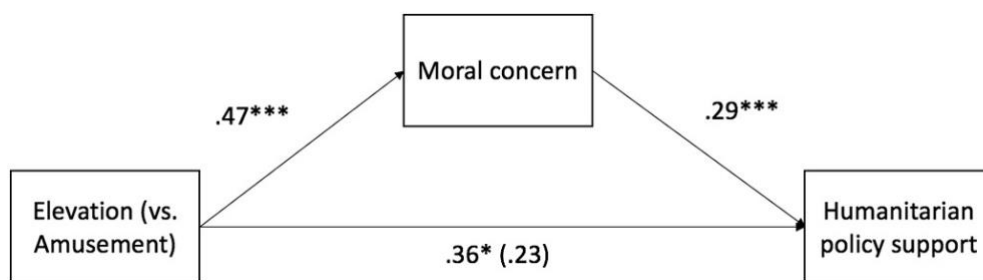
<sup>14</sup> As in Study 2, EFA (using varimax rotation) extracted two factors, with the elevation items loading on the first factor (above 0.88) and the amusement items loading on the second factor (above 0.92). As the happiness item, again, loaded on to the elevation factor (0.84), we excluded it from the analysis and we controlled for the amusement measure. As in Study 2, with happiness included in the elevation measure, the results of the manipulation check remained significant.

<sup>15</sup> Although not preregistered, we conducted a CFA on policy items to examine model fit, as in the previous studies. The model suggested a good model fit ( $\chi^2(19) = 48.40$ ,  $p < .001$ ,  $RMSEA = 0.07$ ,  $TLI = 0.96$ ,  $CFI = 0.97$ ,  $SRMR = 0.06$ ) and again, provided support for the distinctiveness of humanitarian policies and concessions.

**The mediating role of moral concern for others.** Mediation analysis revealed that the indirect effect of moral elevation (vs. amusement) on support for humanitarian policies through moral concern was significant, effect = 0.14, SE = 0.05, 95% CI [0.05, 0.25], again providing evidence in support of the proposed model (see Figure 4.2)

**Figure 4.2**

Moral concern for others as a mediator of the effect of moral elevation on support for humanitarian policies, while controlling for political ideology, age, education and amusement (Study 3).



Notes. \* $p < .05$ , \*\*\* $p < .001$ .

## Discussion

The results of this study were fully consistent with those of Study 2 and with our preregistered hypotheses. We found that that the moral elevation (vs. amusement) condition increased Jewish-Israelis' support for humanitarian policies towards Palestinian and that moral concern for others played a mediating role. We again found no relationship between moral elevation and support for political concessions.

### Mini Meta-Analysis

We analyzed the three studies to determine the overall main effect of elevation on policy support (Goh, Hall, & Rosenthal, 2016). We used fixed effects in which the mean effect sizes (converted to Cohen's  $d$ ) were weighted by sample size.<sup>16</sup> Overall, those in the elevation condition had significantly higher support for humanitarian policies compared with those in the control conditions (Cohen's  $d = 0.28$ ,  $Z = 3.79$ , 95% CI [0.13, 0.42],  $p < .001$ , two-tailed). There was no difference between the moral elevation and

<sup>16</sup> When conducting the mini meta-analysis, we collapsed the positive emotion (amusement) control condition and the neutral control condition in Study 2 and compared this with the elevation condition.

control conditions in support for political concessions (Cohen's  $d = 0.06$ ,  $Z = 0.84$ , 95% CI  $[-0.08, 0.20]$ ,  $p = .401$ , two-tailed).<sup>17</sup>

### General Discussion

In this work, we sought to examine the effect of moral elevation on policy preferences in the context of intractable conflict. Focusing on the Israeli-Palestinian conflict, we found that moral elevation vs. amusement and vs. a neutral control condition, led Jewish-Israeli participants to express significantly higher support for humanitarian policies towards Palestinians civilians, but it did not alter support for political concessions. We found that elevation significantly increased support for humanitarian policies in Studies 2 and 3, but in Study 1 this effect, although in the expected direction, was not significant. However, a mini meta-analysis confirmed the significance of the overall effect of elevation on support for humanitarian policies. As the overall effect was relatively small, it may be that there was simply not enough power in Study 1 to detect a significant effect.

Our research builds on previous work showing that elevation predicts helping primarily in the interpersonal domain (e.g. Schnall et al., 2010). We extend this by showing that even in the context of violent intractable conflict, elevation can increase support for humanitarian action to alleviate the suffering of outgroup members. Though our findings highlight the promise of eliciting this emotional experience in the context of intergroup conflict, they also show that it is not a magical elixir for conflict resolution as its effects do not extend to increased support for political concessions that are generally

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<sup>17</sup> In the context of this study, the elevation measure was included as a manipulation check. However, for exploratory purposes, we also examined the mediating role of the experience of elevation, as existing work suggests that the emotional experience itself may play a role in the effectiveness of moral-elevation inductions (e.g. Oliver et al., 2015). To this end, we tested whether the experience of elevation played a mediating role between the elevation (vs. control) condition and support for humanitarian policies. When using the elevation measure comprising the items that were included in all three studies, and the same controls as in previous analysis, the path from elevation induction to the experience of elevation was significant ( $\beta = 3.75$ ,  $SE = 0.08$ ,  $t = 46.73$ ,  $p < .001$ ). The path from the experience of elevation to support for humanitarian policies, fell short of significance ( $\beta = 0.08$ ,  $SE = 0.43$ ,  $t = 1.84$ ,  $p = .066$ ). and the relative indirect effect through the experience of elevation was marginally significant, effect = 0.30,  $SE = 0.16$ , 95% CI  $[-0.02, 0.61]$ . When including the positive sensation/happiness item in the elevation measure, the path from elevation induction to the experience of elevation remained significant ( $\beta = 3.62$ ,  $SE = 0.08$ ,  $t = 47.09$ ,  $p < .001$ ) and the path from the experience of elevation to support for humanitarian policies was significant ( $\beta = 0.10$ ,  $SE = 0.04$ ,  $t = 2.35$ ,  $p = .019$ ). The relative indirect effect through the experience of elevation was also significant, effect = 0.38,  $SE = 0.17$ , 95% CI  $[0.06, 0.71]$ . This pattern of results provides support for a model in which the emotional experience of elevation is part of the psychological mechanism for the effect of exposure to elevating materials on support for humanitarian policies.

seen as a necessary condition for the promotion of peace. We suggest that support for political concessions remains unaffected by elevation because supporting concessions is not considered to be a moral good, unlike humanitarian policies, as we demonstrated above.

We identified moral concern for others as a mechanism that may explain why moral elevation increases support for humanitarian action. We also tested whether positive attitudes towards the outgroup mediated the observed effect, but found that only in Study 1 were positive attitudes towards Palestinians significantly strengthened by moral elevation, and that in Studies 2 and 3 they were not significantly affected. Our mixed results regarding positive attitudes are consistent with the overall mixed support in the literature regarding the effects of elevation on attitudes towards outgroup members (Lai et al., 2014; Oliver, Hartmann, & Woolley, 2012) and suggests that the effect of moral elevation on attitudes towards outgroup members is less robust or may be subject to additional factors (Lai et al., 2014). On the other hand, our finding that moral concern for others played a mediating role on the effect of elevation on humanitarian policy support, is in line with previous work showing that elevation leads to an increased desire to be moral (e.g., Aquino et al., 2011; Haidt, 2000). These results show that the effect of elevation on support for humanitarian policies is not contingent on positive attitudes towards the outgroup. General moral concern for others may, therefore, better explain the effect of elevation on support for policies that protect the basic needs of outgroup members and aim to reduce their suffering. It should be noted that the mediation models tested can only be suggestive about the causal inference of variables as we did not experimentally manipulate the mediator. Furthermore, we do not argue that moral concern for others is the sole mechanism underlying the relationship between elevation and support for humanitarian policies, but our results suggest it plays an important role.

As well as contributing to the literature on moral elevation, our work highlights the potential of moral elevation as an emotion-based intervention for increasing support for humanitarian action. In the context of intergroup conflict, people's conflict related attitudes are often extremely rigid (Halperin & Bar Tal, 2011) and individuals are often resistant to caring about, and feeling empathy towards, outgroup members (Brown, Bradley, & Lang, 2006; Čehajić-Clancy, 2011; Cikara, Bruneau, Van Bavel, & Saxe, 2014). Even though empathy is associated with support for humanitarian aid towards outgroup members, attempts to elicit empathy towards outgroup members are often unsuccessful and have even been found to backfire under certain circumstances



(Graziano, Habashi, Sheese, & Tobin, 2007; Vorauer & Sasaki, 2009). An elevation-based intervention may be less threatening than an empathy-based intervention as it need not contain any mention of the conflict or the outgroup whatsoever. The effect of elevation on increasing support for humanitarian action towards outgroup members is not contingent on ingroup members feeling specific emotions or having specific attitudes towards the outgroup. Another advantage of elevation-based interventions is that elevation is generally experienced as a positive emotion (Haidt, 2003), in contrast to other emotions that encourage prosocial behavior, such as empathy, which may be distressing, or shame and guilt, which may be aversive (Wohl et al., 2006). For these reasons it may be more conducive, even if less intuitive, to expose people to elevating acts of moral goodness rather than exposing them to the suffering of outgroup members, in order to increase support for humanitarian action towards those outgroup members.

It is possible that a moral elevation intervention would be more effective for some groups than others. According to the needs based model of conflict resolution, perpetrator groups are more concerned with maintaining their moral image, which is put into question by their transgressions, compared with victim groups, who are instead more concerned with restoring their agency (Shnabel & Nadler, 2008). Previous work shows that those who care more about being moral, have a greater desire to be a better person after being exposed to morally elevating materials, compared with those who care less about being moral (Aquino et al., 2011). To the extent that specific groups care about being moral, they may be more or less affected by an elevation intervention. We note that the studies in this paper were conducted in only one sociopolitical context and participants were all Jewish-Israeli. Future work is therefore merited to test the impact of moral elevation on support for humanitarian and other policy preferences in other contexts and on different groups, to confirm the generalizability of the findings and explore whether group status may impact the effectiveness of the intervention.

Finally, it would be interesting to test the duration of the effects of moral elevation on support for policy preferences. While one study found that the effects of elevation on volunteering can persist across time (Cox, 2010), the majority of work does not test longitudinal effects of moral elevation, which is an important question, especially for applied purposes.

## **Conclusion**

In the context of intractable conflict, people tend to overlook the suffering of civilians who belong to the opposing group, with detrimental consequences for innocent lives. We reveal that simply exposing people to the morally elevating behavior of another may increase support for policies that aid and protect outgroup members in this challenging context. Our work is the first to examine the effects of moral elevation on distinct outgroup-favorable policy support in the context of conflict. We hope that future work can continue to contribute not only to our theoretical understanding of the role of elevation in the context of intractable conflict, but also inform policy makers and campaigners aiming to increase moral concern towards outgroup civilians in conflict and promote humanitarian action.

Supplementary information: <https://doi.org/10.1016/j.jesp.2021.104113>.

## Chapter 5: Discussion and Conclusion

### Summary of Findings

This thesis identified three distinct ways to reduce support for ingroup harmdoing, through identity-based, cognitive, and affective paths. When developing these interventions, we considered the range of psychological processes that govern attitudes about harmdoing, and attempted to influence them in order to provide people with psychological resources to consider their group's harmdoing from a less defensive, more objective, and more morally engaged viewpoint.

The first project considered the central role of moral identity threat on defensive responses to harmdoing. Based on work showing that people go to great lengths to protect their moral identity in the face of wrongdoing (Aquino, 2002; Moore, 2015), we hypothesized that being morally blamed for past harmdoing, would lead people to justify their harmful actions more than if they were absolved of moral blame. We tested this in the context of harm to animals, specifically meat-eating, and indeed found overall support for our hypothesis. Messages that absolved meat-eaters for their past meat consumption, by suggesting that they were not fully aware of the extent of harm their actions caused, evoked a less defensive response, compared with messages that communicated to meat-eaters that they were fully aware of the harmful consequences of their actions. Overall, absolved participants, compared with blamed participants, expressed greater support for veg\*nism and greater intentions to reduce meat consumption. Blamed (vs. absolved) participants used various, and not always consistent, defense mechanisms: they endorsed stronger beliefs that humans are superior to animals, they believed veganism was less of a moral issue, they were more likely to claim that they were unable to change their diet towards veganism, and they regarded the information provided about animal suffering as a threat to their freedom of choice. Altogether, these studies found that absolving is often a more effective strategy than blame, as it protects people's moral identity, allowing them to overcome their defensiveness and reconsider their harmdoing.

The second project tested whether motivated justification of ingroup harmdoing in the context of intractable conflict may be reduced, this time, via a cognitive process of analogical reasoning. We hypothesized that evaluating a similar case of harmdoing in a removed context, where neither ingroup or outgroup members were involved, would lead people to oppose the harmdoing as a general moral principle, leading to less support for

ingroup harmdoing. In six studies, we found support for the effectiveness of using analogies to promote more objective reasoning, leading ingroup members to judge their group's harmdoing as more morally wrong. Our analogy-based intervention showed that motivated reasoning processes that govern judgments about ingroup-committed violence can be attenuated when judgments are made sequentially or alongside another case of harmdoing in a remote context. The findings of these studies, taken together, shed light on the psychological processes involved in analogy-based interventions to increase acknowledgment of ingroup harmdoing.

Finally, the third project in this thesis tested an intervention that aimed to increase support for harm reducing policies, this time via an affective process. This project examined the effect of the relatively understudied emotional experience of moral elevation on conflict-related policy preference. Based on existing work showing that experiencing moral elevation increases people's concern with morality, we hypothesized that it may also increase people's support for humanitarian policies as the protection of innocent outgroup civilians is regarded as a moral requirement, even in the context of war (Solf, 1986). Indeed, we found that after experiencing moral elevation induced via a video clip depicting a man doing a series of altruistic actions (in the interpersonal domain and unrelated to the intergroup context) participants increased their concern for others and had greater support for humanitarian policies. Importantly, elevation did not increase support for compromises for peace, suggesting that its effects may be limited to support for policies directly related to inflicting and preventing harm to the outgroup.

### **Theoretical Contributions**

While in this thesis I focused on using theories and tools from social psychology to develop interventions to change attitudes about intergroup harmdoing, the outcomes of the studies have also contributed to a better understanding of these theories and tools. The intergroup context can be viewed as challenging testing grounds for attitude change interventions (Bar-Tal & Hameiri, 2020). In this context, support of harmdoing is part of a society's shared narrative and can therefore become particularly entrenched (Bar-Tal, 2007; Bastian & Loughnan, 2017). While many psychological interventions aim to bring about change in an individual in line with the changes they desire (e.g., improving performance or boosting self-confidence), interventions to reduce support for harmdoing in these contexts mainly involve contesting deeply held, normative attitudes. These

contexts therefore provide an opportunity to understand the strengths and potential limitations of the various intervention approaches that we tested.

Chapter 2 introduced a novel approach to reduce defensiveness about harming: absolving harm-doers of blame by suggesting they are not fully aware of the suffering that results from their actions. In two out of three studies we found that when omnivores were not blamed for meat-eating and were instead absolved, they responded less defensively and were more supportive of harm reduction (i.e., veg\*nism). However, in one of the three studies we found no difference between blaming and absolving frames on defensive processes or support for veg\*nism. This pattern of findings suggest that the effect of blame may depend on context or individual differences. Blaming and absolving frames seemed to matter in our studies where participants were younger (primarily students), more liberal and were mainly women. Research has found that these demographic groups are more receptive to veg\*nism. While age, political ideology or gender did not moderate the effects of blaming (vs. absolving) on defensiveness or support of veg\*nism in our study, we considered that absolving may be more likely to increase openness to change among omnivores who are more supportive of veganism at the outset or less attached to an identity of themselves as a meat-eater, or in social contexts where there is stronger support for veganism. For those who support meat-eating as a principle or in contexts where eating meat is particularly normative, blaming may pose less of a threat to moral identity and absolving may therefore be redundant. While these possible explanations merit further exploration, our mixed findings do suggest that there are boundary conditions for the positive effects of absolving (vs. blaming) interventions.

Chapter 3 demonstrated the role of analogies as a vehicle for reducing motivated moral reasoning in the challenging context of intractable conflict, where learning about ingroup harming usually triggers defensive responses (Sullivan et al., 2011). In our studies, we found that considering an analogous case of collective punishment of family members in a removed context led to more critical judgments about the ingroup demolishing the home of terrorists' relatives, which is also a case of collective punishment. We considered, however, the alternative possibility that because home demolition is a widely supported action among the Jewish-Israeli public, participants would simply find ways to view the remote and ingroup-committed case of collective punishment as distinct, leaving their judgment about ingroup harming unchanged. Because no two cases are identical and analogies do not constitute proof for a given

conclusion but only evidence (Sidgwick, 1893), participants were not obligated to apply the same moral principles to the removed and ingroup cases of harmdoing. Participants could have judged the remote case as wrong but remained equally supportive of the ingroup's harmdoing, claiming, for example, that security demands in their own political context necessitated such actions. However, this did not happen and our analogy did lead to reflection. The fact that our intervention led to reduced support for in ingroup-committed harmdoing, speaks to the power of analogies for reducing ingroup-bias in cognition.

The work in chapter 4 expanded our understanding of the psychological processes and outcomes of experiencing moral elevation. When exploring mechanisms for the effect, we found that increased concern for others, but not reduced prejudice towards the outgroup, mediated the effect of moral elevation on reduced support for harm-inflicting policies. The effect of moral elevation on outgroup prejudice was weak and inconsistent, compared with the effect of moral elevation on moral concern. Pinpointing the effect of this emotional experience may shed light on seeming inconsistencies in past studies. For example, one set of studies found that moral elevation did not reduce White participants' prejudice towards Black people in the US (Lai et al., 2014), whereas another study found that elevation increased White participants' donations to a Black-oriented charity (Freeman et al., 2009). Our findings suggest that moral elevation leads people to care more about their own moral values and their desire to behave morally, but may be less likely to change stereotypes and beliefs about particular groups. This may explain why previous work found that elevation led to increased donations to Black-oriented charities, but it did not shift attitudes about the same outgroup. Our findings suggest that elevation may be a particularly effective intervention for targeting outcomes that are normally associated with morality, such as altruistic behavior, concern with moral obligation, and support for humanitarian aid, but may be a less effective intervention for challenging existing attitudes and views about particular outgroups.

The interventions in this thesis all demonstrated that although people are motivated to defend their ingroup and harmful conduct, people also care about being moral and people have values and principles that oppose causing harm to others. The three interventions in this thesis identified psychologically processes that strengthened these moral values and principles, in turn attenuating the effect of moral disengagement regarding ingroup harmdoing. Taken together, these studies show that identity-based,

cognitive, and affective psychological process that can all feed into support of ingroup harmdoing, can also be leveraged to reduce such support.

### **The Applied Relevance of the Findings**

In addition to their theoretical contribution, the findings in this thesis can also inform those working in activism and peace and justice education about how to communicate information about harmdoing. People have strong motivations to avoid being exposed to information about their own, or their group's, harmdoing as this is the most convenient way to avoid dissonance (Cotton, 1985). Widespread active consciousness raising about the consequences of harmful actions is therefore necessary. This thesis highlights that those intent in changing attitudes about harmful actions need to consider how to present information about harmdoing to member of perpetrator groups, beyond considering the content of the information.

One applied lesson from our findings is that moral blame fuels defensiveness. Activists need to be aware that people care deeply about their moral identity and communicating messages that threaten their moral identity, is likely to backfire. One way that attributions of blame and the threat they trigger can be reduced is by acknowledging the complexity of systemic harm and the multiple forces that are responsible for it. The practical challenge here is to reduce blame to the extent that it enables people to reflect critically on their harmful behavior or that of their group, but not to the extent that it allows people to morally disengage and excuse similar future transgressions. To foster change, it is crucial for people to know that despite the complexity of harmdoing in the intergroup context, they have the ability to avoid supporting transgressions. Paradoxically, the best way to bring about feelings of efficacy and responsibility may actually be to avoid moral blame, as this can lead people to become preoccupied with defending themselves or their group, rather than actually considering the wrongdoing and changing.

Another finding from this thesis with applied relevance is that moral learning can be stimulated by considering moral transgressions in different contexts. Our work suggests that learning about moral actions and moral transgressions in other contexts can increase people's concern for justice and provide people with an alternative way of thinking about harmdoing. Analogies may widen perspective and decentralise the self- or ingroup-focus that often governs evaluations of harm and the processing of conflict-related information. According to researchers studying education interventions,

interventions are generally effective, not just because of the specific treatment messages that students are exposed to, but rather because of recursive or intellectual processes that they set in motion (Yeager & Walton, 2011). If considering analogies can provide people with a new way of thinking and enable more critical reasoning in general, their benefits may even be long-lasting.

Finally, our finding that moving emotional experiences and exposure to moral role models can increase support for harm-alleviating policies may also have applied relevance. Moral elevation interventions are an indirect and non-aversive, and even uplifting, approach to changing attitudes about harming. Drawing attention to moral actions can be adopted widely to encourage a more caring outlook that also extends to outgroup members. There are already platforms that aim to acknowledge inspirational men and women. For example, there are websites that tell the stories of unsung moral heroes (<http://moralheroes.org/about/>) and everyday hero awards that celebrate those who have carried out exceptionally altruistic acts. Campaigns and educational programs can share stories of moral exemplars to help define societal values and amplify people's intention to act morally, prevent harm, and protect others.

### **Limitations and Future Directions**

According to Kurt Lewin's model of change, an intervention requires three steps: 1. Unfreezing previously held attitudes, 2. Attitude change, and 3. Refreezing to solidify the newly formed attitude (Lewin, 1997). The work in this thesis focused on the first two steps of the attitude change process, examining the immediate impact of each psychological intervention. Fully understanding the applicability of the interventions requires also evaluating their durability (Cohn & Fredrickson, 2010; Paluck et al., 2021) and determining the contexts in which they are effective (Walton & Yeager, 2020). While there is correlational work suggesting that the effect of moral elevation on altruism may be long-lasting (Cox, 2010) and the effects of highlighting moral hypocrisy on reducing moral double standards can endure (Bruneau et al., 2020), future work should empirically test whether the effects of our interventions persist over time. Creating lasting changes towards a more critical approach to harming with a brief intervention may be particularly challenging in the context of intergroup conflict as dominant harm-supporting norms and ideologies could lead individual attitude-change effects to fade. With this concern in mind, future work may also examine whether transforming the interventions from brief "light touch" experiences to more substantial ones, for example with several



exposures to treatments over time, would create even stronger or more durable effects. Additionally, our work measured reduced support for harming via behavioural intentions, moral judgments and policy support. To understand the full potential of the three interventions we developed, behavioural outcomes demonstrating actual commitment to reducing harming should also be examined.

Although we tested each intervention multiple times, future work should test each intervention in multiple and varied contexts. Our studies were conducted in either the context of intractable conflict or human-animal relations, but these intervention approaches could be applicable across these contexts (and beyond). For example, one could test whether an analogy-based intervention asking omnivores to first morally evaluate factory farming of dogs or monkeys, would make people more critical of the factory farming of cows and chickens. Similarly, one could ask whether a morally elevating intervention depicting human acts of kindness could increase concern for animals, and in turn, support for animal rights? Investigating this question would also uncover the extent to which moral elevation broadens the scope of moral concern for others. Finally, one could ask whether using an absolving frame when presenting information about violent ingroup actions in the context of intractable conflict would reduce defensiveness and increase acknowledgement of ingroup harming? Investigating these questions and others could help establish the generalizability of our findings and gauge the applied potential of our interventions.

Each intervention in this thesis focused on a distinct psychological pathway for shaping attitudes regarding ingroup harming. Future work could explore whether a multidimensional intervention approach that considers identity, cognitive, and affective processes may produce an additive or even a synergistic effect (Bar-Tal & Hameiri, 2020; Saguy & Reifen-Tagar, 2022). Indeed, there is existing work showing the benefit of combining intervention approaches. For example, one field study found that the positive effects of an intergroup contact encounter between Jewish and Palestinian students were enhanced if the students first learned that groups are malleable and can change (Goldenberg et al., 2017). In the context of this work, we could hypothesize that analogy-based interventions may be particularly powerful if participants first experienced the positive emotional experience of moral elevation. Research suggests that positive affect can help trigger “upward spirals” as it promotes discovery of new ideas and provides individuals with more psychological resources (Fredrickson, 2004). Similarly, first absolving individuals of blame may increase the effectiveness of analogies as absolving

may lower defensiveness making ingroup members more receptive to information about ingroup harmdoing.

### **Conclusion**

Through waging wars against other groups and exploiting weaker ones, human beings are one of the greatest sources of suffering for other human beings and animals alike (Gilbert, 2021). A range of socio-psychological factors allow people to become desensitized to, and supportive of, their group's harmful actions. In order to protect others and stop cycles of violence and suffering, people must reflect on and acknowledge this harmdoing. However, given that people are highly motivated to view themselves and their group in a moral light, taking such a critical approach towards ingroup harmdoing is rare.

In this thesis, we identified three novel approaches for reducing support for ingroup harmdoing in the contexts of intergroup intractable conflict and animal exploitation. Our interventions honed in on psychological factors that could reduce support for ingroup harmdoing, such as people's moral principles and moral concern for others, and amplified these forces to overcome the defensive and morally disengaged ways that people tend to relate to ingroup harmdoing. We rigorously tested the interventions and found support for their effectiveness in reducing support for ingroup harmdoing, thus contributing to the important field of intergroup interventions. It is my hope that social psychologists will continue to extend knowledge about these interventions and that they will serve as a valuable resource for those working to reduce support for intergroup violence in real-world contexts.

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I hereby declare that I have prepared the doctoral thesis myself, that I have not taken any text sections from a third party or my own examination papers without marking them, and have indicated in my work all the sources used and which persons have supported me in the production of the manuscript. I declare that I have not used the assistance of a commercial doctoral intermediary and that a third party has not received pecuniary benefits, directly or indirectly, from me for work related to the content of the submitted doctoral thesis. I declare that I have not yet submitted the doctoral thesis as an examination paper for a state or other scientific examination and that I have not submitted the same, a substantially similar, or a different doctoral thesis to another higher education institution.

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