

Effects of Gratitude on Outgroup Helping and the Mediating Role of Connectedness

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Abstract

Research has shown that the affiliative emotion of gratitude predicts several positive outcomes, such as interpersonal connectedness or the increased willingness to help others. To date, however, there is a lack of research on whether these relationships can be extended to the context of intergroup relations. In this research, we investigated whether (and why) outgroup gratitude may motivate helping behavior toward the outgroup. To test this idea, we conducted an online experiment in a political intergroup context in the US ($N = 225$). We hypothesized that outgroup-based gratitude would increase helping behavior toward the outgroup compared to the incidental gratitude condition (being grateful for general things in life). Furthermore, we hypothesized that outgroup gratitude predicts greater connectedness with the outgroup (in comparison with incidental gratitude) and that outgroup connectedness mediates the relationship between outgroup-based gratitude and outgroup helping. Overall, we found no support for our hypotheses. Despite these insignificant findings, we nevertheless contributed to the literature on gratitude in that our study is the first to investigate this relationship in an intergroup context. Further theoretical implications will be discussed.

Keywords: gratitude, outgroup-based gratitude, outgroup helping behavior, connectedness, intergroup relations

Effects of Gratitude on Outgroup Helping and the Mediating Role of Connectedness

Popular psychological science has often indicated that feelings of gratitude are linked to a variety of favorable outcomes, including better mental health (Komase et al., 2021), increased prosocial behavior (Grant et al., 2010), affiliate motives (Algoe, 2012), more social support, and less stress (Zhou & Wu, 2016). In addition, gratitude appears to be an emotion that promotes interpersonal connections. However, no research has previously examined how the feeling of gratitude can lead to helping behavior in the setting of intergroup relations. And subsequently, why it is more difficult to feel gratitude toward an outgroup member.

In this research, we argue that inducing gratitude toward an outgroup can be a psychological strategy for reducing intergroup conflict or tension between an in- and outgroup. More specifically, we propose that outgroup gratitude can induce reconciliatory group behaviors, in our case, helping behavior toward the outgroup, which would positively affect the relationship between the in- and outgroup. In this current research, we will examine whether (and why) gratitude from an ingroup toward an outgroup can motivate outgroup helping, and more specifically, whether outgroup gratitude predicts greater connectedness with the outgroup (in comparison with incidental gratitude) and also whether outgroup connectedness mediates the relationship between outgroup-based gratitude and outgroup helping.

Gratitude in Intergroup Relations

Gratitude can be described as a pleasant and moral emotion one experiences after another person has given or attempted to provide something valuable (McCullough & Tsang, 2004). Smith (1976) had stated in his early work that feelings of gratitude are essential for maintaining a society built on goodwill, and as mentioned above, there exist a variety of positive functions that gratitude can elicit. In addition, to deepening social bonds (Algoe, 2012), gratitude is associated with greater confidence in social relationships (Gino &

Schweizer, 2008) and a stronger perceived interpersonal connection between people (Algoe et al., 2008). Thus, gratitude, as an other-praising emotion (Haidt, 2003), encourages gratitude-directed actions, such as reconciliatory and collective behaviors (Bartlett & DeSteno, 2006).

Despite the abundance of research on gratitude and its positive effects, it is limited to an interpersonal level. However, investigating whether these findings extend to an intergroup context could add insights to the research about positive emotions and gratitude. Because gratitude is associated with affiliative motives, it can bring people closer together (Algoe et al., 2008), and thus, it potentially reduces intergroup tension. Therefore, it must be examined whether gratitude as a positive and affiliating emotion can also elicit its effects in an intergroup context and ideally bring ingroups and outgroups closer together. Gratitude triggers positive emotions (Algoe, 2012), and existing research suggests that positive emotions (e.g., hope, empathy) (Rosler et al., 2013) alleviate intergroup tension and conflict. Therefore, we recommend that experiencing gratitude as a prosocial and affiliative emotion in intergroup relations can be a psychological strategy to help reduce intergroup conflict and tension. Relationships between in- and outgroups tend to be characterized by higher pressures (Bar-Tal & Halperin, 2013), which is why it is of great magnitude to study mechanisms such as gratitude that might reduce this tension.

Outgroup-based Gratitude and Helping Behavior toward Outgroup

Helping behavior is a critical mechanism for overcoming conflict resolution barriers (Van Leeuwen & Zadeck, 2017). Specifically, group-based and positive emotions were found to promote intergroup helping (Goldenberg et al., 2020), and thus, gratitude as a positive and prosocial emotion deserves special attention in this regard. In line with previous research that has been provided about gratitude and its positive effects, theoretical models have shown that there exists a link between gratitude and helping behavior in an interpersonal context (Bartlett & DeSteno, 2006). Previous research has shown that individuals who

experience gratitude engage in more prosocial behaviors toward their peers than individuals experiencing gratitude less often (McCullough et al., 2001). According to the norm of reciprocity, helping someone else leads to reciprocal kindness, and that person feels compelled to help in return (Gouldner, 1996). This explains why people feel grateful for someone else's helping behavior, in turn, feel the urge to help themselves.

We argue that this relationship of gratitude predicting helping behavior does not necessarily hold in the context of intergroup relationships, as the reasons for helping outgroups as opposed to ingroups differ substantially (Stürmer et al., 2006). For example, gratitude is less often and much harder experienced by an ingroup member toward an outgroup member (Rambaud et al., 2021). Subsequently, ingroups are less likely to provide help for outgroup members. Research has shown that this is because people favor their ingroup over their outgroup (ingroup favoritism) (Abbink & Harris, 2019). In other words, ingroups tend to have more negative opinions toward outgroups, ultimately leading to outgroup hate, outgroup prejudice, and possibly, worst of all, discrimination toward the outgroup (Fiske, 2002). Humans have the fundamental intention to help. However, this is prone to many of the biases mentioned above (Van Leeuwen & Zadevka, 2017), wherefore, they voluntarily help their ingroup preferable to the outgroup in discomfort or need. Therefore, we argue, as gratitude is usually portrayed toward others within the ingroup and more likely to induce helping toward the ingroup, that general gratitude might not be sufficient to induce outgroup helping behavior.

However, despite these ingroup biases, we believe explicitly targeting gratitude to the outgroup seems likely to reduce these biases and elicit more outgroup helping behavior. More specifically, people might shift their perception of the outgroup and feel less negative toward them. Various theories exist regarding the significance of negative emotions as a central force that provokes and sustains conflicts between in- and outgroups. Hence, one key mechanism

for alleviating intergroup conflicts is regulating these negative emotions toward the outgroup (Emotion regulation) (Halperin et al., 2011). We believe this can be achieved through cognitive change and, more specifically, reappraisal. Reappraisal implicates the reinterpretation of emotion-triggering situations that alter the emotional influence (Gross, 2002). For example, research has found that the cognitive shift from negative emotional appraisal toward an outgroup to a more positive emotional appraisal can lead to less destructive behaviors and more collective behaviors between in- and outgroups (Halperin et al., 2013). Asking people to reevaluate or reconsider their perception of events or information directly is the most effective technique to induce cognitive shift (Ochser & Gross, 2008). Therefore, we argue that if we ask participants to write down things they are grateful for the outgroup, there is room for a cognitive shift to happen.

Furthermore, knowing that cognitive reappraisal can lead to more positive outgroup emotions, we will link the research of positive emotions to helping behavior in an intergroup context as a next step. Several studies have found that positive emotions perceived toward an outgroup impact the engagement in peace-building intergroup behaviors (O'Driscoll et al., 2021) and subsequently alleviate intergroup conflict and tension (Halperin, 2008). According to Jonas and Mummendey (2008), positive emotions, attitudes, or appreciations between groups increase and maintain mutual, beneficial, and positively perceived relationships, which in turn facilitate reconciliatory group behaviors.

As we have chosen a context where there is already some sort of tension, in the form of the existing partition of America and division between Republicans and Democrats, gratitude, in general, is not easily accessible. However, it appears likely that if we can cognitively shift our participants' perception of how they feel toward their outgroup, this might loosen up the tension and allow it to be a bridge toward an outgroup becoming closer and, ideally, elicit outgroup helping.

The Mediating Role of Outgroup Connectedness

The concept of social connectedness can be defined as having a sense of affinity with a particular person or group and/or feeling attached to others (Smith & Mackie, 2000). For an interpersonal relationship, the resulting connectedness between persons can be facilitated by gratitude. For example, people that acknowledge certain similarities between each other, for which they are grateful, perceive others to be more connected with them (O'Driscoll et al., 2021). Moreover, people who establish connectedness with others are more inclined to meet society's expectations which means they are more likely to help their peers (Battistich et al., 2004).

The link between connectedness and helping behavior can also be found in an intergroup context. How we establish intergroup relations has a lot to do with how interconnected in- and outgroup are. People find it hard to help an outgroup unless they are very connected (Brown & Abrams, 1986). The more you are connected, the more likely you are to help (Brown & Abrams, 1986). Connectedness strengthens people's bonds (despite their perceived differences) and evokes deeper understanding and regard for each other (Bailey et al., 2018).

On the contrary, the link between gratitude and connectedness has not been researched in an intergroup context. When we look at an intergroup context, we propose that the positive association between gratitude and connectedness does not hold anymore. Assuming objective boundaries and fewer shared properties between the in- and outgroup can produce biases in connectedness with the outgroup, thereby negatively affecting intergroup relations (O'Driscoll et al., 2021). However, as argued before, through the cognitive shift of negative emotions toward more positive ones, connectedness between in- and outgroups might increase. Therefore, we do not expect to find an effect of general gratitude on outgroup connectedness unless we manipulate participants specifically to feel more grateful toward their outgroup. In

other words, we propose that gratitude directed at the outgroup facilitates outgroup connectedness. Hereby, we also predict outgroup connectedness to mediate or account for the link between outgroup gratitude and outgroup helping.

Present Study and Hypothesis

This research aims to investigate whether and why outgroup-based gratitude predicts outgroup helping. We hypothesized that gratitude toward the outgroup predicts greater helping behavior toward the outgroup (in comparison with incidental gratitude). We also hypothesized that outgroup gratitude predicts greater connectedness with the outgroup (compared to incidental gratitude). Finally, we hypothesized that outgroup connectedness mediates the relationship between outgroup-based gratitude and outgroup helping. Precisely, gratitude toward an outgroup would predict enhanced connectedness with the outgroup, which would, in turn, predict greater prosocial behavior toward an outgroup.

Method

Participants and Design

We recruited 250 American individuals who participated in the study in exchange for a total fee of \$0.90 in compensation. We conducted an online study via Academic Prolific and sampled people who reside in the United States, are American, and are members of the Democratic Party (ingroup). We excluded 25 participants from the data set, including those who indicated not to be Democrats ($n = 11$) and wrote that they were not thankful for the outgroup ($n = 15$) and not thankful in general ($n = 1$) (see Appendix). The final sample consisted of 225 Democrats (144 Females, 74 Males, five reported Others, and two preferred not to report their gender) ranging in age from 19 to 77 years ($M = 38.91$, $SD = 14.62$). Participants were randomly assigned to either an incidental gratitude condition or an outgroup gratitude condition ($n = 115$ and $n = 110$, respectively).

Procedure

The Ethics Committee approved the study of the Faculty of Behavioral and Social Sciences at the University of Groningen (EC-BSS). Before participating in the study, participants were asked to read and give informed consent. In the first part of the study, they were asked to take part in a writing task. In the *incidental gratitude condition*, participants were asked: “We would like you to spend 2-3 minutes thinking and writing about things you are thankful for in your life in the United States. Please write down 4-5 things you are thankful for in your life (max. 100 words). For example, they could be related to your personal life, social life, professional life, culture, economy, country, or other domains.” Participants were asked in the outgroup gratitude condition: “We would like you to spend 2-3 minutes thinking and writing about things you are thankful for Republicans in the United States. Please write down 4-5 things you are thankful for Republicans (max. 100 words). For example, they could be related to your personal life, social life, professional life, culture, economy, country, or other domains.”

In the second part, they completed measures of emotions, emotions toward Republicans, the threat toward Republicans, and other constructs that were not relevant to the hypotheses of this study. Then, they filled out a measure of helping intentions toward Republicans and finally provided some socio-demographic information (gender, age, and political affiliation). At the end of the study, they were debriefed and thanked.

Measures

Manipulation Checks

We assessed whether participants experienced gratitude in general and gratitude toward the outgroup. To measure feelings of gratitude in general, participants indicated how they were feeling at that moment: “Appreciative”, “Thankful”, “Grateful” ($\alpha = 0.966$). We additionally measured other positive and negative emotions to counterbalance the number of positive and negative items. For the positive emotions in general, participants indicated how

they were feeling at that moment: “Enthusiastic”, “Happy” ($r = .783$). For the negative emotions in general, participants indicated how they were feeling at that moment: “Sad”, “Angry”, “Guilty”, “Embarrassed”, “Ashamed”, “Outraged”, “Disgusted” ($\alpha = .881$). All answers were reported on a 7-point Likert scale ranging from 1 (not at all) to 7 (very much).

To measure feelings of gratitude toward the outgroup, participants indicated their feelings toward members of the Republican party: “As a Democrat, I feel thankful for Republicans”, “As a Democrat, I feel appreciative of Republicans” ($r = .940$). We also additionally measured other negative emotions to counterbalance the number of positive and negative items. Participants indicated their negative feelings toward members of the Republican party. That is, as a Democrat I feel “Embarrassed by Republicans”, “Fearful of Republicans”, “Angry at Republicans”, “Outraged by Republicans”. and “Ashamed of Republicans” ($\alpha = 0.898$). All answers were reported on a 7-point Likert scale ranging from 1 (not at all) to 7 (very much).

Outgroup Connectedness

We used the four following items to assess connectedness with the outgroup: “I feel a sense of affinity toward Republicans”, “I feel a bond with Republicans”, “I feel connected with Republicans”, “I can identify with Republicans” ($\alpha = .937$; Sparks et al., 2014). Participants indicated their feelings of connectedness with the outgroup on a 7-point Likert scale ranging from 1 (not at all) to 7 (very much).

Outgroup Helping

To measure outgroup helping behavior, we created three subscales that capture different levels of helping behavior toward Republicans (support a movement, sign a petition, donate money). For the support a movement subscale, participants indicated their willingness to “Support a gender equality (MeToo) movement organized by members of the Republican party.”, “Support a racial equality (Black Lives Matter) movement organized by members of

the Republican Party.”, “Support a climate change movement organized by members of the Republican Party.” ($\alpha = .898$). For the sign a petition subscale, participants indicated their willingness to: “Sign a petition, started by members of the Republican Party, that protects religious freedom.”, “Sign a petition, started by members of the Republican Party, that supports the removal of statues of historical figures.”, “Sign a petition, started by members of the Republican Party, to change Columbus Day to Indigenous Peoples Day.”, “Sign a petition, started by members of the Republican Party, that supports abortion rights in a Republican community.”, ($\alpha = .796$). For the donate money subscale, participants indicated their willingness to: “Donate money to a church that promotes same-gender marriage in a Republican community.”, “Donate money to a Republican movement that supports gun control regulations.”, “Donate money to a charity organization, led by members of the Republican Party, that supports victims of gun violence and their families.”, ($\alpha = 0.879$). We averaged all items and created a composite score for outgroup helping, ($\alpha = .905$).

Results

Preliminary Analysis

For the statistical analysis, we first calculated descriptive statistics with all means and standard deviations (see Table 1) as well as correlations (see Table 2) for our study variables.

Table 1

Means and Standard Deviations for the study variables across experimental conditions.

	<i>Inc. Gratitude</i>		<i>OG Gratitude</i>	
	M	SD	M	SD
Gen. Gratitude	5.588	1.407	2.988	1.998
OG Gratitude	1.665	1.071	1.891	1.295
OG Connect.	1.58	.901	1.698	.989
Pos. Emotions	4.483	1.501	3.023	1.814
Neg. Emo.	1.398	.704	2.149	1.355
OG Neg. Emo.	5.245	1.502	4.756	1.804
OG Helping	4.13	1.64	4.158	1.628

Note. All ratings were on 7-point scales ranging from 1 = *not at all* to 7 = *very much*.

M = Mean, SD = Standard Deviation, OG = Outgroup, Pos. Emo. = Positive Emotions, Neg. Emo. = Negative Emotions, Inc. = Incidental, Connect. = Connectedness, Gen. = General

Table 2*Pearson Correlation Coefficients between study variables.*

	1	2	3	4	5	6
1. Inc. Grat.	1					
2. OG Grat.	.352**	1				
3. OG Connect.	.239**	.662**	1			
4. OG Help.	.165*	.085	.103	1		
5. Pos. Emo.	.798**	.380**	.216**	.164*	1	
6. Neg. Emo.	-.365**	-.179**	-1.03	.040	-.320**	1
7. OG Neg. Emo	-.074	-.461**	-.404	-.062	-.104	.312**

Note. Inc. = Incidental, Grat. = Gratitude, OG = Outgroup, Pos. = Positive, Neg. = Negative,

Help. = Helping

* $p < .05$; ** $p < .01$ (two-tailed), $N = 225$

Manipulation Checks

We first checked whether participants experienced gratitude in general across conditions. A one-sample t -test showed that participants reported to be grateful in general ($M = 4.317$, $SD = 2.156$); significantly different from the scale midpoint, $t(224) = 2.206$, $p = .028$. An independent sample t test showed that participants in the incidental gratitude condition reported higher gratitude ($M = 5.589$, $SD = 1.407$) than those in the outgroup gratitude condition ($M = 2.988$, $SD = 1.998$), $\beta = .165$, $t(223) = 11.326$, $p < .001$, $d = 1.505$, 95% CI [2.144, 3.057].

Regarding feelings of gratitude toward the outgroup, a one-sample t -test showed that participants reported low levels of gratitude toward the outgroup in general ($M = 1.776$, $SD = 1.189$), significantly different from the scale midpoint, $t(224) = -28.074$, $p < .001$. An

independent sample *t* test showed that participants in the outgroup gratitude condition did not report higher gratitude toward the outgroup ($M = 1.891$, $SD = 1.295$) than the participants in the incidental gratitude condition ($M = 1.665$, $SD = 1.071$), $\beta = .085$, $t(223) = -1.427$, $p = .091$, $d = .190$, 95% CI [-.537, .086]. This suggests that our outgroup gratitude manipulation was not successful. However, participants still reported enhanced feelings of gratitude in general across conditions.¹

Hypothesis Testing

We tested our hypotheses using linear regression analyses. Our first hypothesis stated that gratitude toward the outgroup predicts greater helping behavior toward the outgroup (in comparison with incidental gratitude). We did not find a significant main effect of outgroup gratitude on outgroup helping, $\beta = .028$, $t(223) = .135$, $p = .893$, 95 % CI [-0.376, .432].

Participants in the outgroup gratitude condition were not more willing to help the outgroup ($M = 1.891$, $SD = 1.295$) than those in the incidental gratitude condition ($M = 1.665$, $SD = 1.071$). Thus, our first hypothesis was not supported.

Our second hypothesis stated that outgroup gratitude predicts outgroup connectedness. We did not find a significant main effect of outgroup gratitude on outgroup connectedness, $\beta = .117$, $t(223) = .931$, $p = .353$, 95% CI [-.13, .364]. Participants in the outgroup gratitude condition did not report to be more connected with the outgroup ($M = 1.698$, $SD = .989$) than those in the incidental gratitude condition ($M = 1.58$, $SD = .901$). Therefore, we did not find support for our second hypothesis.

¹ We additionally tested whether positive and negative emotions in general and toward the outgroup differed across conditions. We found that participants reported higher negative emotions toward the outgroup and higher negative emotions in general, in the outgroup gratitude condition ($M = 4.756$, $SD = 1.803$; $M = 2.150$, $SD = 1.355$, respectively) than in the incidental gratitude condition ($M = 5.245$, $SD = 1.502$; $M = 1.398$, $SD = .704$, respectively), $t(223) = 2.213$, $p = .028$, $t(223) = -5.254$, $p < .001$, respectively. They experienced higher positive emotions in general in the incidental condition ($M = 4.483$, $SD = 1.501$) than in the outgroup condition ($M = 3.023$, $SD = 1.814$), $t(223) = 6.588$, $p < .001$.

Given that we did not find an effect of outgroup gratitude on the dependent variable (outgroup helping) and mediator (outgroup connectedness), we did not run additional analyses to test the mediation hypothesis. However, we additionally explored correlations between self-reported outgroup gratitude and outgroup connectedness and outgroup helping to see whether a statistically significant linear relationship exists between these variables. We found that self-reported outgroup gratitude was significantly and positively correlated with outgroup connectedness ($r = .662, p < .001$). However, outgroup connectedness and outgroup helping had no statistically significant relationship ($r = .103, p = .126$). Moreover, self-reported general gratitude was significantly and positively correlated with outgroup connectedness ($r = .239, p < .001$).

Discussion

The main goal of this research was to investigate whether and why outgroup-based gratitude promotes outgroup helping. We hypothesized that outgroup-based gratitude, compared to general gratitude, predicts greater helping behavior toward the outgroup. Precisely, gratitude toward an outgroup would predict enhanced connectedness with the outgroup, which in turn would indicate greater outgroup helping. To test these hypotheses, we conducted an online study in the intergroup context between Democrats and Republicans in the United States. Overall, we did not find significant support for our hypotheses. Outgroup-based gratitude did predict neither outgroup helping nor outgroup connectedness. Despite the results initially expected to be different, this research offers some interesting insights into how gratitude may lead to helping behavior in the context of intergroup relations and thus makes a valuable contribution to the literature on gratitude and outgroup helping behavior.

Theoretical Implications

This paper offers three relevant implications for understanding gratitude in contexts of intergroup relations. Firstly, our findings add essential insights to the field of social

psychology, as no studies to date have taken the intergroup context of gratitude into account. To underline the novelty of our work, the present research provides the first test that investigates how gratitude could be a psychological strategy to improve intergroup relationships through helping behavior. Although we do not have significant evidence to support this, future research should examine this relationship in a different context. Gratitude directed toward an outgroup might still be relevant to induce outgroup helping behavior but perhaps exclusively under certain conditions (e.g., in a less polarized intergroup relationship). Future examination is particularly important because further research on the effects of gratitude on intergroup helping behavior is needed to guide efforts in developing adequate strategies and interventions for conflict resolution and rapprochement. Investigating whether the emotion of gratitude has the same alleviating effects as other positive emotions such as hope and empathy (Rosler et al., 2013) yields important insights. In particular, mechanisms such as emotion regulation and cognitive reappraisal seem logical and promising in this field of research, as previous literature has revealed its positive outcomes in intergroup relations (Halperin et al., 2011; Ochser & Gross, 2008). The examination of mechanisms (in our case gratitude) that potentially contribute to the enhancement of reconciliatory group behaviors is of great relevance, and gratitude as an affiliating and positive emotion deserves attention in this particular field of research.

Secondly, even though, against our expectations, we did not find evidence that outgroup-based gratitude predicts outgroup helping, this research yields exciting and essential findings. We found that participants were willing to help the outgroup in both conditions. Therefore, as we did not find differences across conditions regarding outgroup helping, one could assume that general gratitude might be sufficient to induce outgroup-based helping behavior; in other words, gratitude might not necessarily have to be targeted at the outgroup specifically to predict outgroup helping. This is in line with the fact that we found a

significant positive correlation between general gratitude and outgroup helping behavior and not between outgroup gratitude and outgroup helping. Therefore, we assume that gratitude in general has the potential to elicit outgroup helping behavior. Thus, we may be able to extend previous research that has shown that individuals who experience gratitude engage in more prosocial behaviors toward their peers than individuals experiencing gratitude less often (McCullough et al., 2001). Our implication hypothesizes that these findings might be mirrored within intergroup relations. Moreover, if validated, these findings imply that classical criteria (i.e. ingroup favoritism, outgroup hate) for intergroup relations might not hold for the emotion of gratitude. However, a dedicated study must further examine and investigate this relationship. To take this one step further, one may argue that showing gratitude toward the outgroup could be categorized as a confrontation with the outgroup. Arguably, if there exist strong tensions between the groups, creating awareness of the other group could be seen as a negative intergroup contact. This is described by the salience-valence effect, as high salience causes more negative contact with the outgroup (Paolini et al., 2010). By targeting gratitude manipulation toward a specific outgroup, the effect of gratitude on helping behavior could backfire. To test this idea further, future research needs to include a control condition (e.g., a no-gratitude condition) to compare the findings to a baseline.

Lastly, we did not find evidence that outgroup gratitude predicts outgroup connectedness. This provides initial evidence that connectedness in the intergroup context may not be relevant. It may suggest that connectedness is not among the first variables affected by cognitive reappraisal. When reducing intergroup tension, the decrease of negative emotions might need to occur before the increase of positive emotions. This can also be seen in literature, where Halperin (2011) defines the concept of prospective appraisal and states that in long-term relationships, first, the negative emotion of long-term hate must be reduced before constructional emotional responses can be induced. This implies that decreasing

negative emotions (e.g., outgroup threat or outgroup fear) may be more relevant to target when aiming at reducing intergroup tension through helping behavior. It might be worthwhile to investigate whether the temporal sequence of first decreasing negative intergroup characteristics before later inducing positive intergroup interferences will affect the relationship between outgroup gratitude and outgroup connectedness.

Strengths and Limitations

One of the strengths of our work is reflected in the fact that we used a real intergroup context, a context of intergroup conflict that was not fictitious. Our study measures are high in ecological validity, as they relate to the fundamental conflict between Republicans and Democrats. However, at the same time, this can also be seen as a limitation as our findings are specific to one particular intergroup context and cannot be generalized to different contexts. Due to the study taking place in the U.S., the current analysis may not generalize beyond the Western, Educated, Industrialized, Rich, and Democratic (WEIRD) societies. However, one interesting path for future research would be to compare how gratitude in an intergroup context might drive helping behavior across different cultures with different samples. Thereby, we could explore possible differences and similarities between cultures and contexts while advancing toward a more integrated perspective on gratitude in intergroup relations. For example, it has been shown that gratitude as well as helping behavior is experienced and expressed differently across collectivistic and individualistic cultures (Mendonça et al., 2018; Grusec et al., 2002). Therefore, clinicians and researchers need to consider these differences when assessing gratitude and its impact on intergroup relations.

Another potential limitation of this research regards our outgroup manipulation check. It did not seem to work as expected, as participants in the outgroup gratitude condition did not report higher gratitude toward the outgroup than the participants in the incidental gratitude condition. This can be explained by the fact that participants experienced time pressure during

the execution of the tasks, especially during the writing task. Future research should reconsider whether it is preferable to extend the time of the writing task so that participants can reflect more deeply on aspects they are grateful for the outgroup. Research has shown that time pressure influences ingroup members to increase their ingroup bias (Hughes, 2016). Cognitive reappraisal is a process, wherefore it might take time and effort and will need to be induced over an extended period. However, even though the manipulation did not work as intended, participants experienced gratitude in both conditions implying that there still was some gratitude induction.

Furthermore, we did not include a control condition. Thus, we cannot infer whether the observed outgroup helping behavior in both conditions is, in fact, due to gratitude (irrespective of the gratitude condition) or can be attributed to humans' general tendency to help and support their ingroups' beliefs. Although the helping behavior was targeted at their outgroup members (i.e., Republicans), the content of the helping act focused on values that the ingroup (i.e., Democrats) stand for and believe in (e.g., same-sex marriage, racial equality, and climate change). One could speculate that participants thus only helped due to the helping criteria targeting issues they could identify with and not due to the gratitude induction.

Concluding Remarks

Precedent from related methodologies led to the logic that the emotion of gratitude and its influence on helping behavior yields interesting findings, especially in an intergroup context. Even though we did not find the expected results, our study still shows interesting findings, namely the novelty of our work, the potential influence of general gratitude on helping behavior, and the interpretation of connectedness, which need further investigation in future research. Research in this area is relevant for designing appropriate interventions and developing psychological strategies that help improve the relationship between in- and outgroups and alleviate intergroup conflict. This is especially important when facing a

growing number of intergroup conflicts in different parts of the world. We have given reason to assume that gratitude could assist as an emotion in an intergroup context to increase helping behavior and thereby reduce intergroup tension. Nevertheless, to make practical implications, further research is needed to further entangle the relationship between gratitude and helping behavior, especially in an intergroup context.

References

- Abbink, K., & Harris, D. (2019). In-group favouritism and out-group discrimination in naturally occurring groups. *PLoS ONE*, *14*(9).
- Algoe, S. B. (2012). Find, remind, and bind: The functions of gratitude in everyday relationships. *Social and Personality Psychology Compass*, *6*(6), 455-469.
- Algoe, S. B., Haidt, J., & Gable, S. L. (2008). Beyond reciprocity: gratitude and relationships in everyday life. *Emotion*, *8*(3), 425.
- Bailey, M., Cao, R., Kuchler, T., Stroebel, J., & Wong, A. (2018). Social Connectedness: Measurement, Determinants, and Effects. *The Journal of Economic Perspectives: A Journal of the American Economic Association*, *32*(3), 259–280.
- Bar-Tal, D., & Halperin, E. (2013). The nature of socio-psychological barriers to peaceful conflict resolution and ways to overcome them. *Conflict & Communication*, *12*(2).
- Bartlett, M. Y., & DeSteno, D. (2006). Gratitude and prosocial behavior: Helping when it costs you. *Psychological Science*, *17*(4), 319–325.
- Battistich, V., Schaps, E. & Wilson, N. (2004). Effects of an Elementary School Intervention on Students' "Connectedness" to School and Social Adjustment During Middle School. *The Journal of Primary Prevention*, *24*(3), 243-262.
- Brown, R., & Abrams, D. (1986). The effects of intergroup similarity and goal are interdependent on intergroup attitudes and task performance. *Journal of Experimental Social Psychology*, *22*(1), 78-92.
- Davis, D. E., Choe, E., Meyers, J., Wade, N., Varjas, K., Gifford, A., Quinn, A., Hook, J. N., Van Tongeren, D. R., Griffin, B. J., & Worthington, E. L., Jr. (2016). Thankful for the little things: A meta-analysis of gratitude interventions. *Journal of Counseling Psychology*, *63*(1), 20–31.

- Fiske, A. P. (2002). Using individualism and collectivism to compare cultures: A critique of the validity and measurement of the constructs: Comment on Oyserman et al. (2002). *Psychological Bulletin*, 128(1), 78–88.
- Gino, F., & Schweitzer, M. E. (2008). Blinded by anger or feeling the love: how emotions influence advice taking. *Journal of Applied Psychology*, 93(5), 1165.
- Goldenberg, A., Garcia, D., Halperin, E., & Gross, J. J. (2020). Collective Emotions. *Current Directions in Psychological Science*, 29(2), 154–160.
- Gouldner, A. (1996). The Norm of Reciprocity: a Preliminary Statement. *American sociological review*, 161-178.
- Graham, S. (1988). Children's developing understanding of the motivational role of affect. An attributional analysis. *Cognitive Development*, 3(1), 71-88.
- Grant, A. M., & Gino, F. (2010). A little thanks goes a long way: Explaining why gratitude expressions motivate prosocial behavior. *Journal of Personality and Social Psychology*, 98(6), 946.
- Gross, J. (2002). Emotion Regulation: Affective, Cognitive, and Social Consequences. *Psychophysiology*, 39(3), 281-91.
- Gross, J. J., Halperin, E., & Porat, R. (2013). Emotion regulation in intractable conflicts. *Current Directions in Psychological Science*, 22(6), 423-429.
- Grusec, J. E., Davidov, M., & Lundell, L. (2002). Prosocial and helping behavior. *Blackwell handbook of childhood social development*, 15, 457-474.
- Haidt, J. (2003). The moral emotions: In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.). *Handbook of affective sciences*. Oxford University Press, 852-870.
- Halperin, E. (2008). Group-based hatred in intractable conflict in Israel. *The Journal of Conflict Resolution*, 52(5), 713-736.

- Halperin, E., & Pliskin, R. (2015). Emotions and emotion regulation in intractable conflict: Studying emotional processes within a unique context. *Political Psychology, 36*, 119-150.
- Halperin, E., Porat, R., Tamir, M., & Gross, J. J. (2013). Can emotion regulation change political attitudes in intractable conflicts? From the laboratory to the field. *Psychological science, 24*(1), 106-111.
- Halperin, E. & Sharvit, K. & Gross, J. J. (2011). Emotion and Emotion Regulation in Intergroup Conflict: An Appraisal-Based Framework. *Intergroup conflicts and their resolution: A social psychological perspective, 249*.
- Hughes, B. L., Ambady, N., & Zaki, J. (2017). Trusting outgroup, but not ingroup members, requires control: neural and behavioral evidence. *Social Cognitive and Affective Neuroscience, 12*(3), 372-381.
- Jonas, K., & Mummendey, A. (2008). Positive Intergroup Relations: From Reduced Outgroup Rejection to Outgroup support. In U. Wagner, L. R. Tropp, G. Finchilescu, & C. Tredoux (Eds.), *Improving Intergroup Relations: Building on the Legacy of Thomas F. Pettigrew* (pp. 210-224). Wiley-Blackwell. Social issues and interventions.
- Komase, Y., Watanabe, K., Hori, D., Nozawa, K., Hidaka, Y., Iida, M., Imamura, K. & Kawakami, N. (2021). Effects of gratitude intervention on mental health and well-being among workers: A systematic review. *Journal of Occupational Health, 63*(1), e12290.
- Ma, L. K., Tunney, R. J., & Ferguson, E. (2017). Does gratitude enhance prosociality?: A meta-analytic review. *Psychological Bulletin, 143*(6), 601–635.
- McCullough, M.E., & Tsang, J. (2004). Parent of the virtues? The prosocial contours of gratitude. *The psychology of gratitude, 123-141*.

- McCullough, M. E., Emmons, R. A., & Tsang, J. A. (2002). The grateful disposition: a conceptual and empirical topography. *Journal of personality and social psychology*, 82(1), 112.
- McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological bulletin*, 127(2), 249.
- McCullough, M.E., Emmons, R.A., & Tsang, J. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology*, 82(1), 112.
- McCullough, M.E., Kilpatrick, S.D., Emmons, R.A., & Larson, D.B. (2001). Is gratitude a moral affect? *Psychological Bulletin*, 127(2), 249.
- Mendonça, S. E., Merçon-Vargas, E. A., Payir, A., & Tudge, J. R. (2018). The development of gratitude in seven societies: Cross-cultural highlights. *Cross-Cultural Research*, 52(1), 135-150.
- Ochsner, K. N., & Gross, J. J. (2008). Cognitive emotion regulation: Insights from social cognitive and affective neuroscience. *Current Directions in Psychological Science*, 17(2), 153–158.
- O'Driscoll, M., Ribeiro Dos Santos, G., Wang, L., Cummings, D., Azman, A. S., Paireau, J., Fontanet, A., Cauchemez, S., & Salje, H. (2021). Age-specific mortality and immunity patterns of SARS-CoV-2. *Nature*, 590(7844), 140–145.
- Peterson, B. E., and Stewart, A. J. (1996). Antecedents and contexts of generativity motivation and midlife. *Psychology and Aging*, 11(1), 21.
- Paolini, S., Harwood, J., & Rubin, M. (2010). Negative intergroup contact makes group memberships salient: Explaining why intergroup conflict endures. *Personality and Social Psychology Bulletin*, 36(12), 1723-1738.

- Ramnaud, S., Collage, J., Tavani, J. L., & Zenasni, F. (2021). Positive intergroup interdependence, prejudice, outgroup stereotype and helping behaviors: The role of group-based gratitude. *International Review of Social Psychology, 34*(1).
- Rettie, R. (2003). Connectedness, awareness and social presence.
- Rosler, N., Cohen-Chen, S., & Halperin, E. (2017). The distinctive effects of empathy and hope in intractable conflicts. *Journal of Conflict Resolution, 61*(1), 114-139.
- Silk, J. & House, B. (2016). The evolution of altruistic social preferences in human groups. *Philosophical Transactions of the Royal Society B: Biological Sciences, 371* (1687), 20150097.
- Smith, A. (1976). The theory of moral sentiments, ed. DD Raphael and AL Macfie. *Oxford: Clarendon Press, 1, 2*.
- Smith, E. & Mackie D. (2000). *Social Psychology*, 2nd Edition. Psychology Press, New York, USA.
- Stürmer, S., Snyder, M., Kropp, A. & Siem, B. (2006). Empathy-Motivated Helping: The Moderating Role of Group Membership. *Personality and Social Psychology Bulletin, 32*, 943-56.
- Taylor, L. K., O'Driscoll, Dautel, J. B., & McKeown, S. (2020). Empathy to action: Child and adolescent outgroup attitudes and prosocial behaviors in a setting of intergroup conflict. *Social Development, 29*(2), 461-477.
- Turner, J. C. (1975). Social comparison and social identity: Some prospects for intergroup behaviour. *European Journal of Social Psychology, 5*(1), 5-34.
- Van Leeuwen, E., & Zagefka, H. (Eds.). (2017). *Intergroup helping*. Cham, Switzerland: Springer.

Zhou, X. And Wu, X. (2016). Understanding the roles of gratitude and social support in posttraumatic growth among adolescents after Ya'an earthquake: A longitudinal study. *Personality and Interpersonal Differences, 101*, 4-8.

Appendix

Table 3 Excluded Answers from Dataset

Participants not indicating to be thankful in both conditions

Participants response	
Participant 17	“ I hate you people. Please add "writing task" to all the descriptions where you demand writing tasks. I hate writing like this. But I do like writing to tell you that you are jerks for not notifying people about writing tasks. I am thankful for tasks that do not require writing! I am thankful for other tasks that do not require writing! Go away!”
Participant 122	“Truthfully, I have very little to thank Republicans for. Especially in office. They are party over country. Not only are they hypocrites, they outwardly lie to their constituents. Republicans pass legislation that inherently jeopardizes the lives of millions. Whether it's pertaining to women’s rights, gay rights, police brutality, healthcare, etc.”
Participant 144	“obeying the constitution protecting are children from harm keeping our country fighting the fascists”
Participant 148	“My boss is a Republican, I'm thankful for her not the group in general. I think most of them are rude and cruel and selfish. My boss is none of those things but she still loves trump”
Participant 153	“I’m not sure what I would be grateful toward republicans. I don’t really know what they do for us.”
Participant 166	“I'm not sure I can think of anything I'm thankful for that I can contribute to Republicans.”
Participant 172	“I honestly cannot think of a single thing I am thankful to republicans for. They are responsible for the daily attacks on right of women and

members of the LGBTQIA community. They have destroyed this country and emboldened the worst of our society.”

Participant 174 “I have zero affiliation with the Republican party, and generally despise that whole institution. The only sort of right leaning political opinion I have is that I support people's right to bear arms, but even in that regard I don't agree with most Republicans on how that should manifest itself in the real world. So, in short, I am not at all thankful for Republicans and I think the party does vastly more harm than good.”

Participant 176 “I have nothing I am thankful for Republicans. Period. No questions. Asking to be thankful for Republicans is not the best survey subject I can think of. To sum up I am not grateful for anything related to Republicans. Any party that supports Donald Trump is to be banned.”

Participant 178 “I genuinely do not feel thankful for Republicans, especially today with the leaked opinion draft from the Supreme Court that Republicans have stacked with an anti-choice, anti-female majority opposed to abortion rights and reproductive rights. I can't think of how to thank them for the Trump administration being allowed to go uncharged for inciting sedition and rioting at the Capitol on Jan. 6, 2021 nor for politicizing COVID-19 instead of uniting our country to take care of each other and reduce its spread.”

Participant 182 “I didn't realize until 2016 just how corrupt and cruel they are when it comes to democracy. They don't believe in democracy where the majority rules. They are all about money and power. They care nothing about anyone but themselves.”

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- Participant 236 “I am not thankful for Republicans. They have been actively trying to take away my rights for years. They are greedy and trying to make women be seen as less than men. They try to blame liberals for cancel culture but tried to cancel Starbucks over Christmas cups.”
- Participant 237 “I am not thankful for anything that Republicans do. I dislike them but I am thankful for them because they are ridiculous and easy to make fun of and I can get a good laugh out of them sometimes, I guess. They use the colour red and red is a nice colour. They also use the elephant which is my favourite animal. Republicans have a lot of money and give their money and connections to their children so they won't will always be set for life.”
- Participant 238 “I am not really thankful for Republicans. I think most of them are vile creatures. The Republican party has made a fool out of themselves by supporting Donald Trump and his ridiculous antics. I wish their party had a major overhaul and stepped up to their jobs.”
- Participant 240 “I am grateful for nothing that has come from republicans. I cannot think of one single tiny thing that republicans have done for this country. Instead, I can think of a million things that Republicans have done to mess up this country and will continue to do so if they have the chance. Republicans are the worst human beings to walk the planet and I say this knowing child rapists and serial killers breathe the same air as them. I would not piss down the throat of a republican if it was on fire. They are privileged, white, garbage monsters who want to stay rich and keep the poor, poor. They are obsessed with money and have the audacity to
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shield themselves with religion when they are far from any holiness in their personal lives.”

Participant 241 “Honestly, there's nothing recent that I'm thankful toward Republicans for. I can only think back to decades ago when Republicans pushed a strong work ethic, but that was also during a time where hard work was properly rewarded. Now a days, that mentality merely leads to exploitation by large corporations and employers. Republicans like to advocate for personal liberty and rights, but their recent policies have all been aimed at removing rights.”
