

**The Effect of Outgroup Gratitude on Outgroup Helping**

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**Abstract**

Gratitude is a positive emotion that is closely related to relationship formation and helping behavior. However, gratitude has not been studied at the intergroup level. Since other closely related positive emotions have led to beneficial intergroup outcomes in conflict settings, it is likely that gratitude oriented towards the outgroup will also show a similar relationship. Therefore, in this study we investigated whether outgroup gratitude could lead to outgroup helping, a beneficial intergroup outcome. The main reason for this prediction was that outgroup gratitude could induce cognitive reappraisal due to positive attention being shown towards the outgroup which would eventually lead to an increasing in outgroup helping. We also predicted outgroup threat to mediate the relationship. We used Democrats (N = 225) as the ingroup and Republicans as the outgroup with a between-subject design. Results showed that there was no impact of outgroup gratitude on outgroup helping but did reduce outgroup threat. However, outgroup threat did not mediate the relationship between outgroup gratitude and outgroup helping. We can conclude that, despite the failure of outgroup gratitude to produce outgroup helping, the lowering of outgroup threat shows the relevance of outgroup gratitude as an important emotions in hostile intergroup contexts.

Keywords: Outgroup Gratitude, Helping behavior, Outgroup threat

### **The Effect of Outgroup Gratitude on Outgroup Helping**

Positive emotions at the intergroup level have shown their importance in alleviating intergroup conflicts (Cohen-Chen et al., 2014; Gross et al., 2013). This gives an important reason for expanding the literature by identifying additional positive intergroup emotions. The emotion that needs to be addressed is gratitude in the context of intergroup relations since gratitude is another positive emotion related to helping behavior, maintaining relationships, and to other previously examined positive emotions at the intergroup level (Bartlett & DeSteno, 2006; Algoe, 2008; Eisenberg & Fabes, 1990). In order to determine whether gratitude at the intergroup level has a beneficial impact on intergroup relations, outgroup helping behavior is identified since it is related to outgroup humanization (Saguy et al., 2015). The main question(s) that this paper seeks to answer is whether there is a relationship between gratitude experienced towards the outgroup and outgroup helping, and what explains this relationship.

#### **Gratitude in the Context of Intergroup Relations**

Gratitude can be defined as a moral emotion of thankfulness experienced towards others due to the recognition that something beneficial has been received from another (McCullough et al., 2001). As an emotion, gratitude is the result of a two-step cognitive process. The first step is a recognition by the receiver that a positive benefit has been obtained. The second step is that an external source is identified as being responsible for this positive benefit (Emmons & McCullough, 2003). The main reason for studying gratitude is that it is associated with beneficial outcomes. Gratitude plays an important part in the formation and maintenance of relationships (Algoe, 2008). In addition, gratitude can be an important aspect of improving relationships because of the role it plays in enacting positive reciprocating behaviors towards the source of gratitude (Ma et al., 2017).

Gratitude can be studied at an intergroup level as well. The experience of emotions such as gratitude can be differentiated by whether they are experienced towards an ingroup or an outgroup. Emotions directed towards the outgroup are experienced by a member of the ingroup on behalf of the ingroup towards the outgroup (Porat et al., 2020). There are a few reasons why it is beneficial to study gratitude at the intergroup level. The first reason is that there has been no research done so far on gratitude at this level. Therefore, research done in this area would fill a gap in the literature. Nevertheless, other positive outgroup emotions have been studied at the intergroup level. Hope has been shown to predict peacemaking attitudes in intractable conflicts for Israeli Jews (Cohen-Chen et al., 2014). Empathy has been shown to lead to forgiveness in an intergroup contexts (Gross et al., 2013). Therefore, it is possible to predict that gratitude in an intergroup context can also lead to beneficial intergroup outcomes.

### **Outgroup-based Gratitude and Outgroup Helping**

One beneficial intergroup outcome that is worthwhile to study is outgroup helping behavior. Outgroup helping refers to acts done by members of the ingroup that are beneficial towards members of the outgroup. It is important to study ways of promoting outgroup helping behavior because of a lower level of helping behavior by the ingroup towards members of the outgroup compared to ingroup helping (Levine et al., 2005). One possible explanation for this is that spontaneous empathy is experienced more frequently towards members of the in-group (Cikara et al., 2011). Empathy is closely related towards helping behavior and gratitude (Eisenberg & Fabes, 1990). Witnessing helping behavior of others also leads to beneficial outcomes for the outgroup. There is evidence that when ingroup members become aware that the ingroup provides help to the outgroup, it will lead to a greater degree of outgroup humanization (Saguy et al., 2015). Finding ways to increase outgroup helping

would help to alleviate the disparity in helping behavior between ingroups and outgroups.

At the interpersonal level, there is evidence showing that feelings of gratitude in general are related to a willingness to help other people. Inducing gratitude has been shown to increase helping behaviors such as helping others in game settings, assisting more with filling out surveys, and increasing help to colleagues at work (Bartlett & DeSteno, 2006; DeSteno et al., 2010; Sawyer et al., 2022; Tsang & Martin, 2019). Gratitude has also been found to reduce sabotaging behavior in a game setting which shows a reduction in harming behavior that occurs due to gratitude (Sasaki et al., 2020). Thus, there is substantial evidence suggesting a clear relationship between feelings of gratitude in general and helping behavior. An explanatory reason for this relationship comes from find-remind-and-bind theory which posits that gratitude serves as a mechanism that generates reciprocal behavior in order to find valuable people, remind that the relationship with them has value, and bind the relationship closer together (Algoe, 2012). We predict that the relationship between general gratitude and helping will be more difficult to establish in an intergroup context. That is, when an individual from an ingroup feels increases in incidental feelings of gratitude, it would not transfer as well to helping the outgroup. Based on the find-remind-and-bind theory, if it is not made salient to an ingroup member that the benefits they have received comes from the outgroup, there would be no reason to provide reciprocating behavior. Group-based emotions are also relevant since empathy is lower towards the outgroup (Cikara et al., 2011).

We propose that outgroup based gratitude will be helpful in increasing outgroup helping. Outgroup gratitude occurs when a group member experiences gratitude toward members of an outgroup (Rambaud et al., 2021). The first argument for our proposition is that outgroup gratitude can lead to an increase in cognitive reappraisal and salience of the outgroup value, which would lead to more reciprocation through helping behavior. Cognitive

reappraisal occurs when the meaning of emotional inputs are altered before the emotional response occurs and an important requirement is attention (Gross, 1998). Gratitude has been shown to help with reappraising memories and predicting cognitive reappraisal in a medical setting (Watkins et al., 2008; Bryan et al., 2018). Cognitive reappraisal is capable of lowering negative emotions such as anger and is argued to have a function in intergroup contexts (Gross et al., 2013). A useful way of conceptualizing how cognitive reappraisal works involves looking at the framework from Gross et al. (2013) in the context of helping the outgroup according to the evidence described earlier. We predict that without outgroup gratitude, there is an exposure event to the outgroup, then a cognitive appraisal of the outgroup occurs, which leads to a relatively higher level of negative outgroup emotions and a lower level of positive outgroup emotions, which leads to lowered helping behavior. However, we propose that heightened outgroup gratitude is capable of leading to a cognitive reappraisal of the outgroup, which would lower negative emotions and increase positive emotions, which would increase helping behavior towards the outgroup. When inducing outgroup gratitude, the reappraisal can occur due to the ingroup individual becoming aware of the outgroup and cognitive reappraisal can take place. However, when inducing general gratitude, there is no exposure to the outgroup and the experience of gratitude cannot lead to cognitive reappraisal.

The main theoretical implications from this research have to do with how gratitude functions in an intergroup setting. Therefore, this research could help identify whether outgroup gratitude has a similar function in establishing reciprocating helping behavior as gratitude in interpersonal behavior. In addition, since gratitude has not been studied in an intergroup context, understanding the consequences of outgroup gratitude would help to develop the literature on group-based emotions.

### **Outgroup Threat as a Mediator**

In addition to analyzing the way that outgroup gratitude may be related to outgroup helping, we propose threat experienced towards the outgroup as a mediator in the relationship. Reasons for outgroup threat is that ingroup members view outgroup members as competitors for scarce resources (realistic threat) and as potential opponents of their values (symbolic threat) (Riek et al., 2006). We propose that outgroup gratitude can help to reduce outgroup threat because of an awareness that the outgroup provides benefits, either symbolic or realistic, which gives a reason for the ingroup member to feel less threatened towards the outgroup. An emotional regulatory motive for the ingroup towards the outgroup is promoting a desired relationship with the outgroup (Porat et al., 2020). If there is evidence that an outgroup could provide a benefit, it would be reasonable for an ingroup member to perceive the outgroup as less threatening and adjust emotions. In addition, according to find-remind-and-bind theory (Algoe et al., 2012), experiencing outgroup gratitude and less outgroup threat would make the outgroup seem more valuable and encourage reciprocating behaviors. For the relationship between outgroup threat and outgroup helping, there is some evidence that threat and outgroup helping are (inversely) related. In recent times, the presence of COVID-19 exposure levels (threat) led to a decreased willingness to aid outgroups (Adler et al., 2021). There is also a relationship between threat and a decrease in helping behavior due to an increase in salience between ingroup and outgroup bias when a threat is presented (Voci, 2006).

### **Current study**

The current study seeks to examine the relationship between outgroup gratitude and outgroup helping, and whether feelings of threat mediate this relationship. We conducted the study in a political intergroup context in the U.S., with Democrats being the ingroup and Republicans the outgroup. These two groups can be described as experiencing increasing



hostility towards each other (Pew Research Center, 2019). For our first hypothesis we predict that outgroup gratitude would elicit an increase in helping towards the outgroup compared to incidental gratitude. For our second hypothesis we predict that outgroup gratitude reduced outgroup threat. For our third hypothesis we predict that outgroup threat mediates the relationship between outgroup gratitude and outgroup helping behavior such that outgroup gratitude will predict outgroup threat which will predict outgroup helping behavior.

## 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 members of the Democratic Party (ingroup). We excluded 25 participants from the data set including those who either indicated to not be Democrats ( $n = 11$ ) or wrote that they were not thankful to the outgroup ( $n = 14$ ) or not thankful in general ( $n = 4$ ) (see Appendix). The final sample consisted of 225 Democrats (144 Females, 74 Males, 5 reported Other, and 2 preferred not to say) 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 study was approved by the Ethics Committee 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 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.” In the *outgroup gratitude condition*, participants were asked: “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, empathy towards 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” ( $r = .786$ ). For the negative emotions in general, participants indicated how they were feeling at that moment: “Sad”, “Angry”, “Guilty”, “Embarrassed”, “Ashamed”, “Outraged”, “Disgusted” ( $\alpha = 0.881$ ). 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).

### **Threat**

To measure threat toward the outgroup, we used an adapted version of a symbolic and realistic threat scale (Kachanoff et al, 2021). Participants completed the following items: “I feel that Republicans are a threat to my well-being.” “I feel that Republicans are a threat to my values”. “I feel that Republicans are a threat to American values and traditions.” “I feel that Republicans are a threat to the rights and freedom of the US population.” Participants indicated their feelings of threat towards the outgroup on a Likert scale ranging from 1 (not at all) to 7 (very much),  $\alpha = 0.907$ .

### ***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.” ( $\alpha = 0.898$ ). 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 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.", ( $\alpha = 0.796$ ). 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, ( $\alpha = 0.905$ ).

## Results

### 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 samples  $t$ -test showed that participants in the incidental gratitude condition reported higher incidental gratitude ( $M = 5.589$ ,  $SD = 1.407$ ) than those in the outgroup gratitude condition ( $M = 2.988$ ,  $SD = 1.988$ ),  $\beta = .165$ ,  $t(223) = 11.327$ ,  $p < .001$ ,  $d = 1.505$ , 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 ( $M = 1.776$ ,  $SD = 1.189$ ); significantly different from the scale midpoint,  $t(224) = -28.074$ ,  $p < 0.001$ . An independent samples  $t$  test showed that participants in the outgroup gratitude condition did not report significantly higher gratitude toward the outgroup ( $M = 1.891$ ,  $SD = 1.295$ ) than those

in the incidental gratitude condition ( $M = 1.665$ ,  $SD = 1.071$ ),  $\beta = .085$ ,  $t(223) = -1.427$ ,  $p = .155$ ,  $d = .190$ , 95% CI [-.537, .086]. This suggests that our outgroup gratitude manipulation<sup>1</sup> was not successful. However, participants still reported enhanced feelings of gratitude in general across conditions.

### Hypothesis Testing

A simple linear regression showed that there was no significant effect of the outgroup gratitude condition on outgroup helping,  $\beta = .009$ ,  $t(223) = .135$ ,  $p = .893$ , 95% CI [-.379, .434]. This result does not support the first hypothesis. A simple linear regression showed that participants in the outgroup gratitude condition ( $M = 5.2455$ ,  $SD = 1.754$ ) reported significantly lower outgroup threat compared to the incidental gratitude condition ( $M = 5.683$ ,  $SD = 1.447$ ),  $\beta = -.135$ ,  $t(223) = 2.042$ ,  $p = .042$ , 95% CI [-.859, -.015]. This result is in line with the second hypothesis. There was a significant negative correlation between outgroup gratitude (measured through the manipulation check) and outgroup threat ( $r = -.527$ ,  $p < 0.001$ ).

### Mediation Analyses

Even though there was no effect of outgroup gratitude on outgroup helping, we could still test the indirect effect of the manipulation on outgroup helping via outgroup threat. To test this indirect effect, we used Hayes' PROCESS macro for SPSS (Hayes, 2013). The result was not significant, 95% CI [-.103, .299]. There was no significant correlation between outgroup threat and outgroup helping behavior ( $r = -.057$ ,  $p = .396$ ).

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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 ( $M = 3.023$ ,  $SD = 1.814$ ),  $t(223) = 6.588$ ,  $p < .001$ .

### Exploratory Analysis

**Table 2:**  
*Correlations*

	Gen. Gratitude	OG Gratitude	Outgroup Helping	Outgroup Threat
1. Gen. Gratitude	1			
2. OG Gratitude	,352**	1		
3. Outgroup Helping	,165*	0,085	1	
4. Outgroup Threat	-0,087	-,541**	-0,077	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

There were other relevant correlations that have theoretical value. There was a significant small positive correlation between incidental gratitude (measured through the manipulation check) and outgroup helping ( $r = .165, p = .013$ ). However, there was no significant correlation between outgroup gratitude and outgroup helping ( $r = .085, p = .206$ ).

### Discussion

In the present study, we aimed to expand the intergroup emotions literature by examining gratitude oriented towards the outgroup. The first question that we sought to answer in this study is whether there is a relationship between outgroup gratitude and outgroup helping. The second question is what could explain this relationship. To examine the relationship, an experimental study was conducted utilizing a hostile intergroup context of Republicans and Democrats. As our first hypothesis, we predicted that outgroup gratitude would elicit an increase in helping towards the outgroup compared to general gratitude. We did not find support for the first hypothesis. For our second hypothesis, we found that

outgroup gratitude reduced outgroup threat, as expected. However, outgroup threat did not mediate the relationship between outgroup gratitude and outgroup helping, which does not support the mediation (third) hypothesis. The manipulation checks showed an unexpected result since the outgroup manipulation did not cause a significant increase in outgroup gratitude compared to the incidental condition, but did lower outgroup threat compared to the incidental condition. Furthermore, the manipulation checks could be used as self-report measures to show that self-reported general gratitude and self-reported outgroup gratitude had different relationships with incidental and outgroup emotions. Levels of self-reported gratitude are higher than outgroup gratitude across conditions. This would suggest that outgroup gratitude is experienced at a much lower level and reflect the attitude that the ingroup has towards the outgroup.

### **Theoretical implications**

The first theoretical implication of this research is evidence that gratitude towards the outgroup helps to lower negative perceptions of the outgroup such as outgroup threat. Since this effect was measured in comparison to incidental gratitude, this provides evidence that specifically outgroup gratitude elicited a cognitive reappraisal to lower outgroup threat which makes cognitive reappraisal a likely explanation. As mentioned before, it was argued in the literature that cognitive reappraisal would alter the negative emotions towards the outgroup (Gross et al., 2013). In addition, there is evidence in the literature that cognitive reappraisal played a part in decreasing outgroup fear (Cohen et al., 2019). This study may contribute to the understanding that outgroup gratitude is related to cognitive reappraisal resulting in lower negative emotions. There is evidence that outgroup empathy leads to forgiveness in a high conflict setting (Gross et al., 2013). Since this study was also done using hostile groups, the findings of lowered outgroup threat due to outgroup gratitude provides further evidence of

positive outgroup emotions playing an important role in alleviating hostile group conflicts.

There is also a similarity with this finding and general gratitude. Gratitude has been shown to reduce certain types of fear based emotions like death anxiety (Lau & Cheng, 2011). In addition, gratitude has been shown to reduce competitive behavior in high-threat situations (Sasaki et al, 2020).

The second theoretical implication of this research is that outgroup gratitude is not better at increasing outgroup helping compared to incidental gratitude. Despite the lowered outgroup threat, it did not lead to a change in outgroup helping. In fact, the incidental gratitude (measured through the manipulation check) had a positive correlation with outgroup helping whereas outgroup gratitude did not. This is not in line with the proposition we made earlier that outgroup gratitude would, through cognitive appraisal, lead to altered outgroup emotions and higher helping behavior. A possible explanation is that positive emotions are related prosocial behavior (Mesurado et al., 2021). In a study on online prosocial behavior, happiness led to a spillover effect to prosocial online behavior (Erreygers et al., 2018). Despite the outgroup gratitude condition lowering outgroup threat, the level of self-reported positive emotions experienced in general was much lower compared to the self-reported gratitude condition. Therefore, the question would be if it may be better to focus on incidental gratitude to improve outgroup helping. In addition, it is worthwhile to consider that attempting to induce gratitude towards a hostile outgroup may lead to negative general emotions. However, a control group without any gratitude manipulation is needed to confirm this.

The third theoretical implication of this research is that reducing outgroup threat and other negative outgroup emotions may not be sufficient to instill helping behavior, despite there being a link between higher threat experienced and reduced outgroup helping (Adler et



al., 2021). Since the outgroup threat mediator was not confirmed due to outgroup threat not having a relationship with outgroup helping, the results point to a need to instill positive outgroup emotions as well to increase outgroup helping. It is well established that positive emotions are related to helping behavior (Mesurado et al., 2021). There is also evidence that negative emotions inhibit helping in general and towards the outgroup (Mesurado et al., 2018; Adler et al., 2021). It may be that negative outgroup threat acts as moderator for the relationship between positive outgroup affect and outgroup helping. A reduction in negative outgroup threat would inhibit the relationship but there would be no increase in outgroup helping if there are no positive outgroup emotions. In the context of find-remind-and-bind theory, gratitude leads to reciprocating behaviors as a response to a motivation to form/maintain a relationship that is perceived to have high value (Algoe, 2012). A reduction in outgroup threat would not necessarily lead an ingroup member to evaluate the outgroup as being valuable.

### **Strengths, Limitations and Directions for Future research**

A major strength of this study was the use of hostile groups for the ingroup and outgroup. This makes the implications of this research more relevant for hostile conflict situations. Especially the reduction of a negative outgroup emotion, outgroup threat, is relevant to intergroup conflict. Fear in intergroup conflicts leads to more support for aggressive action, distrust, and unpleasantness for those experiencing it (Cohen et al., 2019). Also the experience of shared identity is associated with experiencing lowered outgroup threat (Riek et al., 2010). Therefore, research on outgroup gratitude is shown to be especially relevant based on the evidence of this study. Another strength of this study is the use of general gratitude as a comparison which allows for an identification of the impact of outgroup gratitude in particular.

An important limitation of this study is a lack of a control group that has no gratitude induction of any kind. The main benefit of its inclusion would be that it would be possible to determine the impact of the outgroup gratitude intervention and determine to what extent incidental and outgroup gratitude were effected. It would also be useful to check whether the incidental gratitude condition and outgroup gratitude had any impact on outgroup gratitude which would give more information on whether the outgroup gratitude manipulation was effective. Another limitation of the study is that the manipulation check for outgroup gratitude may have had an impact on other measures. The problem with manipulation checks is that they may alter how a participant is feeling (Hauser et al., 2018). After the manipulation, we first asked the participant to fill out manipulation checks on incidental gratitude first and then outgroup gratitude. The outgroup gratitude check involved reflecting on feelings towards republicans, a hostile outgroup. Therefore, participants may have been feeling a lot worse when completing the mediator and dependent variable measures compared to what is reflected in the measurements.

Future research may want to experiment with the type of outgroup gratitude manipulation. The level of outgroup gratitude was low in both conditions with participants feeling close to the bottom end (not at all) on the Likert scale measures. Therefore, it may be worthwhile to see what kind of manipulation would best increase outgroup gratitude. A potential way would be to increase the time spend on reflecting on things to be grateful for from the outgroup, or perhaps utilizing another type of manipulation. It may be possible to utilize mindfulness since that has been used before to induce gratitude (Sawyer et al., 2022). This may still lead to a significant impact on outgroup helping. Another good direction for future research is to confirm whether there is a relationship between outgroup gratitude and cognitive reappraisal. This would help to identify the way in which outgroup gratitude leads towards a change in emotions. Since the topic gratitude is new, there are no developed

theories for outgroup gratitude in particular, making it more difficult to predict additional relationships. Recognizing what mechanisms are involved in outgroup gratitude and other outgroup benefits helps with the development of theory.

### **Conclusion**

In summary, the findings indicate a clear relevance of studying gratitude in an intergroup context. Despite there being no significant relationship of outgroup gratitude and outgroup helping, the reduction in outgroup threat is important. In addition, the study allows for comparison and differentiation between types of gratitude.

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## Appendix A

Participant Number	Response	Reason for removal
1	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!	No mention of any gratitude experienced
5	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 womens rights, gay rights, police brutality, healthcare, etc.	No mention of gratitude towards Republicans
10	Im not sure what I would be grateful towards republicans. I dont really know what they do for us.	No mention of gratitude towards Republicans
12	I'm not sure I can think of anything I'm thankful for that I can contribute to Republicans.	No mention of gratitude towards Republicans
13	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.	No mention of gratitude towards Republicans
14	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.	No mention of gratitude towards Republicans
15	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.	No mention of gratitude towards Republicans
16	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.	No mention of gratitude towards Republicans
17	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.	No mention of gratitude towards Republicans
18	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.	No mention of gratitude towards Republicans
20		

	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 color red and red is a nice color. They also use the elephant which is my favorite 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.	No mention of gratitude towards Republicans
21	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.	No mention of gratitude towards Republicans
22	I am grateful for nothing that has come from republicans. I can not 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 shield themselves with religion when they are far from any holyness in their personal lives.	No mention of gratitude towards Republicans
23	Honestly, there's nothing recent that I'm thankful towards 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.	No mention of gratitude towards Republicans