

## Original Research Reports

# When Do Low Status Groups Help High Status Groups? The Moderating Effects of Ingroup Identification, Audience Group Membership, and Perceived Reputational Benefit

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### Abstract

Previous research has demonstrated that, when negative metastereotypes are made salient, members of low status groups help members of high status groups in order to improve the reputation of their low status group and its associated social identity. The present research investigated three potential moderators of low status groups' outgroup helping: ingroup identification, audience group membership, and perceived reputational benefit. In Study 1 (N = 112) we found that members of a low status group (Keele University students) were most likely to offer to help raise funds for a high status group (University of Birmingham students) when they were high identifiers who had considered a negative metastereotype and believed that their responses would be viewed by an outgroup member. In Study 2 (N = 100) we found a similar effect in an intergroup context that referred to psychology students (low status ingroup) and junior doctors (high status outgroup), showing that the effect was limited to people who perceived reputational benefit in helping the outgroup. The practical and social implications of these findings are discussed in relation to intergroup contact and international relations.

**Keywords:** impression management, ingroup identification, metastereotypes, outgroup helping, prosocial behavior, reputation, social identity

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Prosocial or helping behavior has been explained from a variety of different theoretical perspectives, including an evolved genetic predisposition, socially-learned behavior, empathic arousal, economic motives, the motive for social approval, and conformity to social norms (for reviews, see Batson et al., 2008; Penner, Dovidio, Piliavin, & Schroeder, 2005). The present research focused on a strategic and instrumental reason for helping: People often engage in helping behavior in order to improve their reputation in the eyes of others (e.g., Bénabou & Tirole, 2005; Hopkins et al., 2007; Wedekind & Braithwaite, 2002). In other words, people recognize that prosocial behavior is perceived as a socially desirable form of behavior by others, and they engage in public displays of helping because

they want relevant others to witness their prosocial behavior and evaluate them positively as a result. This impression management motive is most likely the reason that anonymous donations are quite rare (Glazer & Konrad, 1996, p. 1021; Milinski, Semmann, & Krambeck, 2002).

Importantly, impression management and reputation are concerns not only for individuals but also for social groups (e.g., Emler & Hopkins, 1990; Halabi, Dovidio, & Nadler, 2008). However, in the case of intergroup helping, the meaning and value of the help needs to be interpreted in the context of prevailing intergroup relations. In his model of intergroup helping, Nadler (2002) proposed that groups that offer help are likely to be viewed as being more powerful than groups that receive help. Consistent with this proposal, members of high status and powerful groups have been shown to offer help to members of low status and less powerful groups in order to affirm their ingroup's relative status and power (e.g., Nadler, Harpaz-Gorodeisky, & Ben-David, 2009; van Leeuwen, van Dijk, & Kaynak, 2013). The present research considers the conditions under which offers of help are made in the reverse direction. In other words, when do low status groups offer help to high status groups?

There are a number of reasons why low status groups might be expected not to offer help to high status groups. Most obviously, helping a high status outgroup may disadvantage the goals and interests of low status ingroup. In addition, outgroup help contradicts the typical ingroup bias effect, which predicts that people will provide more help to ingroup members than to outgroup members (e.g., van Leeuwen & Täuber, 2012, Study 2; van Leeuwen, Oostenbrink, & Twilt, 2014, Study 3). Finally, members of low status groups may refrain from offering help to high status groups because they are aware that their behavior implies that the high status group is not as powerful as expected and that, consequently, their offer may be interpreted by the outgroup as a challenge to the legitimacy of the intergroup status hierarchy (Nadler, 2002; Nadler, Harpaz-Gorodeisky, & Ben-David, 2009).

However, there are also reasons why low status groups might offer help to high status groups. Consistent with the impression management view of helping (Bénabou & Tirole, 2005; Hopkins et al., 2007; Wedekind & Braithwaite, 2002), members of low status groups may be motivated to offer help to high status groups in order to improve their group's reputation with the high status outgroup (Hopkins et al., 2007; van Leeuwen, 2007; van Leeuwen & Täuber, 2010, 2011, 2012). Offering help to the high status outgroup presents the ingroup in a positive light because it implies that the ingroup is warm and kind (van Leeuwen et al., 2014). Hence, members of low status groups may offer help to high status outgroups because they want to improve their ingroup's reputation in the eyes of the outgroup and, consequently, improve their associated social identity. This *social identity impression management strategy* is consistent with the principles of social identity theory (Tajfel & Turner, 1979), which assumes that group members are motivated to improve the social standing of their group in order to achieve a positive social identity for themselves.

In summary, there are competing psychological forces at work when considering low status groups' outgroup helping. Some of these forces *inhibit* outgroup helping (Nadler, 2002) but others *motivate* outgroup helping (Hopkins et al., 2007). In the present research, we focused on a series of potential moderator variables that were intended to explain the conditions under which the motive to change the outgroup's view of the ingroup might overcome the inhibiting forces and result in outgroup helping. Hence, our aim was to investigate *when* members of low status groups would be most likely to offer help to members of high status groups.

## Previous Research on Strategic Intergroup Helping

The seminal research on low status groups' outgroup helping was conducted by [Hopkins et al. \(2007\)](#). In particular, their third study is most relevant. In this study, the authors experimentally manipulated the salience of a negative ingroup stereotype by providing their Scottish participants with information that was ostensibly from a survey that had been completed by English people. The survey information revealed that English people believed that Scottish people were "mean, ungenerous, and tight-fisted" with money. Hence, Scottish participants were confronted with a negative stereotype that the English outgroup held about their ingroup. This negative *metastereotype* ([Klein & Azzi, 2001](#)) was not made salient in a control condition.

In an ostensibly unrelated part of the study, a research assistant then asked participants to purchase raffle tickets, with the proceeds supporting the victims of violent crime in either Scotland (i.e., ingroup) or Wales (i.e., an outgroup). Participants then returned the money for their raffle tickets to an English research assistant. Hence, their helping behavior was visible to an English outgroup member.

The results showed that, when the negative metastereotype was salient, participants showed higher levels of helping towards the outgroup crime victims but not towards the ingroup crime victims. Hence, these results are consistent with the social identity impression management explanation of outgroup helping because they show that outgroup helping occurs when the motive for a positive social identity is activated by a salient negative metastereotype and when outgroup members are able to notice the helping behavior.

Critically, [Hopkins et al. \(2007, Study 3\)](#) confounded two different outgroups in their research design: The negative metastereotype related to England. However, the helping-behavior related to Wales. Commenting on this issue, [van Leeuwen and Täuber \(2012\)](#) noted that it is important to confirm that outgroup help extends to the high status outgroup that holds the negative stereotype of the ingroup rather than to a third party. In particular, offers of help might be expected to be more effective in improving the ingroup's image if they are directed at the high status outgroup that is the perceived source of the negative metastereotype because it is this group's opinions that matter the most in changing the negative metastereotype.

[Van Leeuwen and Täuber \(2011\)](#) addressed this limitation of [Hopkins et al.'s \(2007\)](#) research. They randomly assigned participants to university quiz teams that either won or lost a general knowledge quiz (group status manipulation). Participants were then given the opportunity to help the other team to beat further teams in a subsequent quiz. Hence, in this case, the outgroup to which help was being offered was also the outgroup that held the negative opinion of the ingroup as a "losing team." Consistent with the social identity impression management explanation, members of the low status (losing) team helped the high status (winning) team during the subsequent quiz in order to demonstrate their competence and improve their reputation as a quiz team.

More recently, [van Leeuwen and Täuber \(2012, Study 3\)](#) demonstrated that outgroup helping is only activated by *negative* metastereotypes and that it does not occur in response to *positive* metastereotypes. In this study, participants from the West of the Netherlands read that 2,000 Dutch students had evaluated students from different parts of the Netherlands. In the negative metastereotype condition, Westerners were described by Easterners as unkind, difficult to get along with, and narrow-minded, and in the positive metastereotype condition, they were described as kind, easy to get along with, and open-minded. Participants then responded to a request for help with a research study from either an ingroup student (Western) or an outgroup student (Eastern). Consistent with

the social identity explanation, participants in the negative metastereotype condition helped the outgroup student more than participants in the positive metastereotype condition.

## The Importance of Investigating Generic Metastereotypes

A problem with the vast majority of the previous research in this area is that it has activated the social identity motive using negative metastereotypes that contain traits that are specifically related to the helping behavior that is subsequently measured. For example, Hopkins et al.'s (2007, Study 3) metastereotype of the Scottish as "mean, ungenerous, and tight-fisted" was specifically related to the charitable helping that their Scottish participants later displayed. Similarly, van Leeuwen and Täuber's (2011) metastereotype of an incompetent quiz team was directly related to the helping-behavior of providing correct answers to the questions in a subsequent quiz. Finally, van Leeuwen and Täuber's (2012, Study 3) negative metastereotype of the Dutch as "unkind" and "difficult to get along with" was related to the helping behaviour of completing a survey for a student from the East of the Netherlands.

The use of specific, helping-related metastereotypes to test the social identity impression management explanation is problematic because it allows two alternative explanations of the resulting outgroup helping. First, participants may display outgroup helping not because they wish to improve the social standing of their ingroup and their concomitant social identity, but because they wish to refute a specific aspect of a metastereotype—perhaps because they believe it to be incorrect and they wish to convey a more accurate ingroup stereotype to the outgroup (e.g., Jussim, 2012). As van Leeuwen and Täuber (2012, p. 780) pointed out, this alternative explanation implies that the motive for outgroup helping is one of collective self-verification (Chen, Chen, & Shaw, 2004) rather than collective self-enhancement (Tajfel & Turner, 1979). Second, participants may be motivated by a specific desire to appear charitable, competent, warm and/or generally helpful, rather than the more general desire to improve the overall social standing of the ingroup that is put forward in the social identity explanation.

Researchers can overcome these interpretational difficulties by activating a *generic* negative metastereotype that is broad-ranging in content and unrelated to the specific domain of helping. To date, two studies have used this generic metastereotyping approach. Van Leeuwen and Täuber (2012, Study 2) asked students in the West of the Netherlands to list traits that students in the North of the Netherlands would see as typical of Western students. This request activated a generic negative metastereotype that consisted of a variety of different traits, very few of which related directly to helping behavior. Participants were then asked by an ingroup or outgroup member if they would help them to complete a questionnaire. Consistent with the social identity explanation, participants who had considered the generic negative metastereotype were more likely to volunteer to help the outgroup member than the ingroup member. Critically, however, the interaction effect that represented this pattern of results was statistically non-significant.

In a similar study, Van Leeuwen et al. (2014, Study 3) asked Vrije University Amsterdam students to list five traits that they believed University of Amsterdam students thought were typical of them. An analysis of the traits revealed a negative metastereotype, although it is not clear how generic this metastereotype was because the researchers did not report a content analysis of the specific traits that participants generated. Nonetheless, consistent with predictions, participants who were asked for help by an outgroup member were more likely to provide help when they had considered the negative metastereotype (although only in private settings and not in public).

In summary, consistent with the social identity explanation, there is some evidence that generic negative metastereotypes trigger outgroup helping. However, the results are not always reliable (van Leeuwen & Täuber, 2012, Study 2) and the generic nature of the metastereotypes is sometimes unclear (van Leeuwen et al., 2014, Study 3). In the present research, we considered moderators of the relation between negative metastereotypes and outgroup helping in order to provide a more incisive, statistically powerful, and valid test of the social identity explanation of low status groups' outgroup helping.

## Moderators of Outgroup Helping

In order to get a better idea about when low status groups are most likely to help high status outgroups, the present research investigated the role of three potential moderators of outgroup helping: ingroup identification, audience group membership, and perceived reputational benefit. We discuss each of these variables in turn.

### Ingroup Identification

Ingroup identification is a multifaceted construct, and researchers disagree about the precise dimensions that it involves (e.g., Leach et al., 2008; Roccas, Sagiv, Schwartz, Halevy, & Eidelson, 2008). Given that we were concerned with ingroup image and reputation in the present research, we focused on ingroup identification as emotional attachment and the pride that group members feel towards their group.

According to social identity theory, ingroup identification moderates the relation between collective self-esteem and intergroup behavior (Rubin & Hewstone, 2004): The need for collective self-esteem only motivates behaviors that are intended to improve the social standing of the ingroup among people who are strongly identified with the ingroup, or *high identifiers* (Tajfel & Turner, 1979, p. 41). In contrast, low identifiers are less motivated to improve the ingroup's social standing because their self-esteem is less closely bound up with the social standing of their ingroup.

Consistent with these predictions, high identifiers should be especially motivated to respond to negative metastereotypes by communicating a positive image of the ingroup to the outgroup vis-à-vis offers to help. In contrast, low identifiers view people, including themselves, as individuals rather than group members (Doosje, Ellemers, & Spears, 1995). Consequently, negative metastereotypes are less threatening to low identifiers because they do not feel that these stereotypes apply to them personally (Spears, Doosje, & Ellemers, 1997). Hence, activating negative metastereotypes should be less likely to motivate low identifiers to engage in outgroup helping.

Several previous studies of outgroup helping have measured ingroup identification (Hopkins et al., 2007; van Leeuwen & Täuber, 2011; van Leeuwen et al., 2014, Study 1). However, these studies have not yielded conclusive results about the potentially moderating role of ingroup identification. The scores from Hopkins et al.'s measure of identification were highly skewed towards high identification, making it problematic to investigate this variable as a potential moderator. Van Leeuwen and Täuber (2011) treated identification as a dependent variable rather than an independent variable. Finally, van Leeuwen et al. (2014, Study 1) found that ingroup identification did not operate as a significant moderator of Amsterdam citizens' intentions to help tourists. However, this field study was conducted in a busy shopping area, which is likely to have introduced a number of extraneous variables that reduced the statistical power of the research. It is possibly for this reason that this study failed to replicate the standard moderating effect of negative metastereotype salience on outgroup helping. Indeed, this study obtained a significant reverse effect, in which negative metastereotype salience led to a *reduction* in outgroup helping. Consequently, the null effect of ingroup identification should be treated with some caution. The present research provided a more

controlled and focused test of the moderating effect of ingroup identification on the relation between negative metastereotypes and outgroup helping.

### Audience Group Membership

A second potential moderator of outgroup helping is the group membership of the audience that witnesses the helping behavior. If low status groups' outgroup helping is a strategic tool that is used to communicate a positive image of the ingroup to the outgroup (e.g., Hopkins et al., 2007; van Leeuwen & Täuber, 2011, 2012), then ingroup members should only help the outgroup when they believe that outgroup members will attribute their help to their ingroup. Note that it is not always the case that outgroup members will attribute the ingroup's help to the ingroup. For example, the ingroup's helping behavior may be performed in an anonymous manner. Alternatively, ingroup membership may not be salient during the helping behavior (Nadler & Halabi, 2006, p. 109), perhaps due to the introduction of a shared, superordinate categorization (van Leeuwen & Täuber, 2011, p. 155).

Van Leeuwen et al. (2014, Studies 1 & 2) investigated audience effects and found that outgroup helping was more prominent in relatively private settings than in public settings. The researchers concluded that, like other impression management strategies, outgroup helping may be suppressed due to the relatively high cognitive load that is associated with being observed by others. We did not aim to investigate the moderating effect of the presence or absence of an audience *in general* in the present research because it does not relate to the social identity impression management explanation. The social identity impression management relates to the *type* of audience that is present (ingroup vs. outgroup) rather than the presence or absence of generic audiences. Hence, we aimed to investigate the moderating effect of the group membership (ingroup vs. outgroup) of a present audience. Van Leeuwen et al. (2014, Study 3) investigated this specific variable and found that, contrary to predictions, outgroup helping was significantly *reduced* in the presence of an outgroup audience. Again, they explain these results in terms of the suppression effect that operates for audiences in general. However, it is also possible that these theoretically inconsistent results arose because the researchers did not take into account individual differences in ingroup identification. Given that only high identifiers should be motivated to engage in outgroup helping as an identity impression management strategy, only high identifiers should be concerned about the ingroup vs. outgroup membership of audience members. Hence, to provide a more powerful test, the present research investigated the *interactive* effects of ingroup identification and audience group on low status groups' outgroup helping.

### Perceived Reputational Benefit

A third potential moderator variable of low status groups' outgroup helping is perceived reputational benefit. Even high identifiers of low status groups who perceive a salient negative metastereotype and believe that outgroup members are observing their behavior will be unlikely to help the outgroup if they believe that their behavior will not be effective in improving their ingroup's reputation. There are at least three reasons why ingroup members may doubt the effectiveness of outgroup helping as an impression management strategy. First, they may believe that outgroup members will see through their ploy and dismiss their help as an instrumental strategy rather than as a genuine expression of the ingroup's character. Second, they may feel that the help that they offer is not sufficient to make a significant impact on the negative metastereotype (van Zomeren, Spears, Fischer, & Leach, 2004). Third, they may feel that their offer of help will not be viewed favorably by the outgroup, either because it poses a challenge to the legitimacy of the intergroup status hierarchy (Nadler, 2002) or because it violates specific social norms about who should offer help to whom and when (van Leeuwen & Täuber, 2011). Given this potential variability in the perceived effectiveness of outgroup helping as an impression management strategy, ingroup

members should only engage in outgroup helping when they are convinced about the reputational benefit of doing so.

Van Leeuwen and Täuber (2011) found that concern about creating a positive group impression, rather than a positive personal impression, predicted outgroup helping. This evidence supports the assumption that people show outgroup helping to improve their group's image rather than their own personal self-image. However, this issue is separate from that of perceived reputational benefit, which relates more to the perceived efficacy of outgroup helping as a method of changing the ingroup's image than to the concern that one has about this group image. The present research provided the first test of the moderating role of perceived reputational benefit on low status groups' outgroup helping.

## The Current Research

The current research aimed to provide an incisive, valid, and statistically powerful test of the social identity impression management explanation of low status groups' outgroup helping. To achieve this goal, we investigated generic metastereotypes rather than specific metastereotypes, and we measured and manipulated a series of theoretically relevant moderator variables: ingroup identification, group membership of the audience, and perceived reputational benefit.

We predicted that members of low status groups would offer help to high status outgroups when (a) they were exposed to a generic negative metastereotype rather than a generic positive metastereotype, (b) they were high identifiers rather than low identifiers, (c) their offer was viewed by outgroup members rather than ingroup members, and (d) they believed that their helping would benefit the image of the ingroup.

Study 1 provided an initial test of the moderating roles of metastereotype valence, ingroup identification, and audience group membership. Study 2 provided a conceptual replication of Study 1 by using a different intergroup context. It also provided an extension of Study 1 by providing a full test of our predictions, including those relating to perceived reputational benefit.

## Study 1

The intergroup context for Study 1 related to students' university group membership. Research participants were recruited from Keele University and asked to consider students from Keele University (ingroup) and the University of Birmingham (outgroup). This particular intergroup context was chosen because Keele and Birmingham universities have an unequal academic ranking, with Keele having a lower status than Birmingham. To illustrate, the UK's (2014) Complete University Guide places Keele University 28 places lower (45/124) than the University of Birmingham (17/124).

## Method

### Participants and Design

One hundred and twelve students who were enrolled at Keele University were recruited on campus (28 males and 84 females;  $M_{\text{age}} = 19.18$ ,  $SD_{\text{age}} = 3.80$ ). Generic metastereotype valence (negative vs. positive) and audience

group membership (ingroup vs. outgroup) were experimentally manipulated in an orthogonal manner. Ingroup identification (moderator) and pledge to help the outgroup (dependent variable) were measured.

### Procedure

The unequal ranking between Keele and Birmingham universities was emphasized to participants in order to heighten the salience of the ingroup's relatively lower-status position. Specifically, participants read that

this study is concerned with the perceptions of the so-called "redbrick" or high profile universities (e.g., University of Birmingham and University of Bristol) and some relatively "newer" or lower profile ones (e.g., Keele University and Staffordshire University).

After they read this text, participants completed a measure of ingroup identification (see the Materials section for details). Audience group membership was then experimentally manipulated: Participants were randomly assigned to conditions in which they were led to believe that their responses would be analyzed by either an ingroup member or an outgroup member (for a similar manipulation of audience group membership, see [Owuamalam, Tarrant, Farrow, & Zagefka, 2013](#)). Specifically, participants were informed that

the data generated in the current study will be made available to a third-year student, Sam Dove, who is a student at the University of Birmingham [University of Keele]. This student will analyse the data from this study as part of a final-year undergraduate project.

The experimental manipulation of generic metastereotype valence then followed. This manipulation was based on an approach developed by [Branscombe \(1998\)](#); adapted to the context of metastereotyping by [Owuamalam & Zagefka, 2011](#); see also [van Leeuwen & Täuber, 2012](#), Study 2; [van Leeuwen et al., 2014](#), Study 3). Participants were randomly assigned to conditions in which they were asked to reflect on either negative metastereotypes or positive metastereotypes. Specifically, participants were instructed as follows:

Please think about the negative [positive] impressions that Birmingham University students hold of Keele University students. Please list up to four of these negative [positive] impressions in the space provided below.

Next, participants read a vignette about a fictitious outgroup organization. This task was intended to increase the relevance of the dependent measure of outgroup helping that followed. Participants read that

the University of Birmingham Students' Forum (UBSF) is an organisation that encourages intellectual excellence through university debates and competitions. UBSF maintains a database of volunteers and from time to time asks them to assist with the organisation's activities. UBSF is currently seeking volunteers to help with selling raffle tickets in order to raise funds for one of its activities.

Participants then indicated whether or not they wished to volunteer to assist UBSF in its activities using a dichotomous "yes" or "no" response.

### Measures

The measure of ingroup identification was adapted from [Schmitt, Branscombe, Kobrynowicz, and Owen \(2002\)](#), and it consisted of the following four items that focused on emotional attachment and ingroup pride: "I am proud to be a Keele University student," "I like being a Keele University student," "Being a Keele University student is a positive experience," and "I value being a Keele University student". Participants responded using a 7-point scale ranging from *strongly disagree* (1) to *strongly agree* (7),  $\alpha = .91$ ;  $M = 5.61$ ,  $SD = 1.04$ .

The effectiveness of the manipulation of generic metastereotype valence was assessed using a single-item measure of metastereotype valence: “The impressions that Birmingham University students hold of Keele University students are generally...”. Participants responded using a 7-point scale ranging from *very negative* (1) to *very positive* (7),  $M = 3.67$ ,  $SD = .87$ .

## Results

### Metastereotype Manipulation Check

**Generic vs. specific metastereotyping** — We aimed to activate generic metastereotypes that consisted of more than one specific metastereotype. To confirm that we had achieved this goal, we conducted a one-sample  $t$  test on the percentage of metastereotypes that participants reported. The results showed that the mean percentage of metastereotypes that participants reported in the negative metastereotype condition ( $M = 81\%$ ,  $SD = 23\%$ ) and the positive metastereotype condition ( $M = 70\%$ ,  $SD = 27\%$ ) were both significantly greater than 25%, which is the percentage that would be expected if only a single metastereotype was generated,  $t_{\text{negative}} = 17.95$ ,  $p < .001$ ;  $t_{\text{positive}} = 12.08$ ,  $p < .001$ . In other words, participants generated more than one metastereotype in both conditions.

**Metastereotype valence** — We also checked whether the valence of the generic metastereotypes that participants reported corresponded with the valence of the condition to which they had been assigned. We performed a 2 (metastereotype condition: negative vs. positive)  $\times$  2 (audience group membership: ingroup vs. outgroup) between-subjects ANOVA on the measure of metastereotype valence. There was a significant main effect of metastereotype condition,  $F(1, 104) = 8.91$ ,  $p = .004$ ,  $\eta_p^2 = .08$ : Confirming the effectiveness of our manipulation, Birmingham University students' impressions of Keele University students were perceived to be significantly less positive in the negative metastereotype condition ( $M = 3.42$ ,  $SD = 0.11$ ) than in positive metastereotype condition ( $M = 3.91$ ,  $SD = 0.11$ ). There was no significant main effect of audience group membership,  $F(1, 104) = 0.35$ ,  $p = .56$ ,  $\eta_p^2 = .003$ , nor any significant interaction between metastereotype condition and audience,  $F(1, 104) = 0.01$ ,  $p = .92$ ,  $\eta_p^2 < .001$ .

**Content analysis of participants' metastereotypes** — We performed a content analysis on participants' metastereotype nominations (i.e., the list of impressions that participants believed that Birmingham University students held of Keele University students) in order to further confirm the valence of the generic metastereotypes and to confirm that they were not specifically related to outgroup helping. Using WordStat 6.1.13 (Provalis Research, 1998-2010), overarching keywords were identified (e.g., “status”) that included both positive and negative descriptors from participants. An example of a positive descriptor was “well-educated,” and an example of a negative descriptor was “we are ranked lower.” Eleven keywords were reported that had five or more descriptors. Descriptors that were relevant to a keyword cluster were assigned to it if present within either of the two metastereotype conditions. A series of chi-square tests were performed to determine whether the frequency of the 11 keywords varied significantly as a function of metastereotype condition. As shown in Table 1, three keywords (prestige, clever and status) were used at a significantly higher frequency in the negative metastereotype condition (e.g., not as clever, low income). Consequently, these keywords were combined to form an index of negative metastereotypes. Four keywords (sociable, fun, community, and courses) were used at a significantly higher frequency in the positive metastereotype condition (e.g., friendly, community feel). Consequently, they were combined to form an index of positive metastereotyping. Corroborating the results from the previous metastereotype valence manipulation check, negative metastereotyping occurred significantly more frequently in the negative metastereotype condition (92) compared with the positive metastereotype condition (34),  $\chi^2(1) = 26.70$ ,  $p < .001$ , and positive metastereo-

typing occurred significantly less frequently in the negative metastereotype condition (11) compared with the positive metastereotype condition (52),  $\chi^2(1) = 26.68, p < .001$ .

Table 1

*Analysis of Keywords Extracted from Participants' Metastereotypes in Study 1*

Keywords	Descriptors	Occurrence in Each Metastereotype Condition		$\chi^2$	Two-tailed $p$
		Negative	Positive		
1. Prestige	New university vs. high academic results	30	17	3.94	.047
2. Clever	Not as clever vs. intelligent	33	10	13.13	<.001
3. Lazy	Lazy vs. hardworking	19	17	0.23	.634
4. Status	Ranked lower/low income vs. superior	29	7	14.32	<.001
5. Sociable	Socially inept vs. friendly/sociable	5	20	9.59	.002
6. Community	Small population vs. community feel	3	16	9.46	.002
7. Accessibility	Middle of nowhere vs. countryside	9	4	2.07	.150
8. Courses	Easier courses vs. dual courses	2	8	3.83	.050
9. Fun	Idle vs. fun	1	8	5.78	.016
10. Diversity	Less multi-cultural vs. multi-cultural	1	5	2.84	.092
11. Prospects	Not as good degree vs. strong outcome	4	2	0.72	.395
Total number of descriptors generated		136	114		

*Note.* Descriptors are exact expressions used by participants. Descriptors have been presented in terms of valence: the negative descriptors are presented first, and they are followed by descriptors that were used in a positive sense. Descriptors that were relevant to a keyword cluster were assigned to it if present within either of the two metastereotype conditions. Unless otherwise stated, all descriptors within a keyword cluster correspond to the valence of the relevant metastereotype condition.

Importantly, there were only 2 out of 112 cases in which participants provided descriptors that are conceptually related to helping (e.g., understanding of others or empathy). This small number of cases was reassuring because it meant that we could rule out collective self-verification and/or the desire to appear helpful as reasons for outgroup helping.

## Main Analysis

A moderated multiple logistic regression analysis was conducted in order to investigate the effect of metastereotype condition, ingroup identification, audience group membership, and their interaction terms on offer to help the outgroup, which was coded 1 for "yes" (36 cases) and 0 for "no" (76 cases). Following the recommendation of [Aiken and West \(1991\)](#), contrast codes were used for metastereotype condition (-1 positive, 1 negative) and audience group membership (-1 ingroup, 1 outgroup), and ingroup identification was mean centered prior to analysis.

[Table 2](#) presents the results of this analysis. Consistent with predictions, there was a significant three-way interaction between metastereotype condition, identification, and audience. None of the other main or interaction effects reached statistical significance.

Table 2

*Multiple Logistic Regression Model Results for the Effects of Metastereotype Condition, Audience Group Membership, and Ingroup Identification on Pledge to Help the Outgroup*

Effect	B	SE	z	Two-tailed p
Metastereotype Condition (MC)	.40	.23	1.74	.082
Audience (AUD)	.03	.23	-0.15	.885
Identification (ID)	-.10	.26	-0.35	.726
MC x AUD	-.13	.23	-0.57	.567
MC x ID	.20	.26	0.75	.454
AUD x ID	-.02	.26	-0.06	.950
MC x AUD x ID	.65	.28	2.36	.019

Model's Pseudo  $R^2$ : Cox and Snell = .11. Nagelkerke = .15

The three-way interaction effect was decomposed using simple slopes analyses (Aiken & West, 1991). This analysis revealed a two-way interaction between identification and metastereotype condition in explaining outgroup helping when the audience was the outgroup,  $\beta = .85$ ,  $SE = .39$ ,  $z = 2.20$ ,  $p = .028$ . As predicted, participants were significantly more likely to offer help to the outgroup when they were high identifiers, when there was an outgroup audience present, and when they focused on negative metastereotypes rather than positive metastereotypes,  $\beta = 1.12$ ,  $SE = .48$ ,  $z = 2.35$ ,  $p = .019$ . The effect of metastereotype condition was not significant among low identifiers when the audience was the outgroup,  $\beta = -.59$ ,  $SE = .54$ ,  $z = -1.07$ ,  $p = .286$ . The two-way interaction between identification and metastereotype condition was not significant when the audience was the ingroup,  $\beta = -.44$ ,  $SE = .39$ ,  $z = -1.14$ ,  $p = .256$ , and consequently the effect of metastereotype condition was also non-significant for high group identifiers,  $\beta = .10$ ,  $SE = .49$ ,  $z = 0.20$ ,  $p = .846$ , and low identifiers,  $\beta = .98$ ,  $SE = .52$ ,  $z = 1.89$ ,  $p = .059$ . Table 3 provides the frequencies of outgroup helping in each condition.

Table 3

*Percentage of Pledges to Help the Outgroup as a Function of Metastereotype Condition, Ingroup Identification, and Audience Group Membership*

	Ingroup Audience		Outgroup Audience	
	High Identifiers	Low Identifiers	High Identifiers	Low Identifiers
Positive Metastereotype	25.41%	14.22%	11.24%	46.38%
Negative Metastereotype	29.19%	53.70%	54.21%	21.39%

Note. High and low identifiers are established at plus and minus one standard deviation from the mean respectively.

## Discussion

Consistent with predictions, members of a low status group (Keele University students) only offered to help to raise funds for a high status group (University of Birmingham students) when they were high identifiers who had considered a negative metastereotype and believed that their responses would be viewed by an outgroup member. These findings add to the previous work in this area in two ways.

First, our manipulation check and content analysis confirmed that the metastereotype that participants reported was generically positive or negative and did not focus on specific, helping-related traits. Consequently, Study 1

adds to van Leeuwen and Täuber's (2012) Study 2 in supporting the assumption that outgroup helping is motivated by a general desire for a positive ingroup image rather than a specific desire for the ingroup to be seen as helpful.

Second, we extended previous research in this area by demonstrating the moderating roles of ingroup identification and audience group membership. People who considered negative metastereotypes were more likely than people who considered positive metastereotypes to offer the outgroup help, but only when they were high identifiers who believed that their responses would be viewed by an outgroup member. This pattern of results supports the social identity impression management explanation: Only high identifiers are motivated to improve their ingroup's image in order to improve their social identity, and this motive should only affect behaviour when ingroup members believe that outgroup members observe their behaviour because outgroup members, not ingroup members, are the source of the problematic negative metastereotype.

Critically, Study 1 did not confirm that participants perceived their group to be a low status group. Hence, it is unclear whether the observed effects related to low status groups in particular. Study 2 included a measure of group status in order to investigate this issue.

In addition, Study 1 did not test the assumption that outgroup help only occurs when ingroup members perceive it to be an effective tool for reaching their goal (van Zomeren et al., 2004). Again, it is important to test the moderating role of perceived reputational benefit in order to demonstrate the strategic and instrumental nature of low status groups' outgroup helping. We predicted that the pattern of results obtained in Study 1 would be strongest among people who perceived a relatively large reputational benefit of offering help to the outgroup. This prediction was tested in Study 2.

## Study 2

In order to test the generalizability of the results from Study 1, we used a different intergroup context in Study 2. Specifically, Study 2 referred to the intergroup relations between psychology students (ingroup) and junior doctors (outgroup). This particular context was chosen because it contains a clear intergroup status difference, with psychology students being regarded as having a lower status than junior doctors. Confirming this status difference, the minimum entry requirements for the psychology degree are lower than those for the medicine degree at Keele University. For example, Psychology requires three B grades at A-level while Medicine requires three A grades.

### Method

#### Participants and Design

One hundred undergraduate psychology students at Keele University took part in this study (22 male, 78 female;  $M_{\text{age}} = 20.65$ ,  $SD_{\text{age}} = 4.82$ ). Generic metastereotype valence (negative vs. positive) and audience group membership (ingroup vs. outgroup) were experimentally manipulated. Ingroup identification (moderator), perceived reputational benefit (moderator), and expressed intention to help the outgroup (dependent variable) were measured.

#### Procedure

To heighten awareness of the ingroup's relatively lower-status position, participants were informed that

this study is concerned with perceptions of the so-called “professional” or high profile courses (e.g., Medicine, Law and Business Administration) and some relatively lower profile ones (e.g., English, Psychology and Education).

Participants then completed the same measure of ingroup identification that was used in Study 1. They also completed a measure of perceived reputational benefit of helping the outgroup (see the Materials section for details).

Audience group membership was then manipulated. Participants were randomly assigned to conditions in which they were led to believe that their responses would be evaluated by outgroup members or by ingroup members. Specifically, participants received the following information:

Before you continue, we would like you to know that your responses will be made available to Dr. Mark who is a lecturer in medicine [psychology]. Mark will be evaluating the responses obtained in this study with junior doctors [psychology students] as part of a research methods exercise. If you are willing for your responses to be used in this way please continue.

A similar experimental manipulation of metastereotype valence to that used in Study 1 was then employed, adapted to suit the current intergroup context. The effectiveness of this manipulation was assessed using a measure of metastereotype valence that was similar to the measure used in Study 1 (descriptive statistics for this scale were:  $M = 5.02$ ,  $SD = 1.38$ ).

Next, participants were presented with a real helping situation concerning the outgroup’s financial remuneration. Participants read a statement adapted from a 2007 news report published by the British Medical Association (BMA) that detailed the loss of accommodation entitlement for the UK’s junior doctors and called for support for these doctors:

The Department of Health has always argued against an increase in junior doctors’ pay on the basis that they received subsidised accommodation. This excuse can no longer be used, and in *The Times* on Friday the 16th of November 2007, the BMA called for uplift to basic salary. In an earlier statement, Dr. Meldrum, president of the BMA also called on members of the public to support a petition to address the welfare of junior doctors.

Participants’ intentions to help the outgroup were then assessed. Finally, participants’ judgements of the status difference between the ingroup and the outgroup were measured.

## Measures

Ingroup identification was measured with the same four items and response scale that were used in Study 1 ( $\alpha = .94$ ;  $M = 6.40$ ,  $SD = 1.71$ ). Participants’ perceived reputational benefit of helping the outgroup was measured using a single item: “To what extent do you feel that helping others outside your discipline can enhance the image of psychologists as a whole?” Participants responded using a 9-point scale ranging from *not at all* (1) to *very much* (9),  $M = 6.50$ ,  $SD = 1.70$ .

Intention to help the outgroup was measured using the following two items: “How likely are you to visit BMA’s website to sign this petition?” and “How likely are you to persuade your friends to sign this petition?” Participants responded using a 9-point scale ranging from *not likely at all* (1) to *very likely* (9),  $r = .88$ ;  $M = 3.41$ ,  $SD = 1.91$ .

Participants' awareness of the status difference between the ingroup and the outgroup was measured using four items that were adapted from Major et al. (2002): "What level of status do you think doctors [psychologists] occupy in this society?" and "What level of income do you expect doctors [psychologists] to earn on average?" Participants responded using a 9-point scale ranging from *low-status/low-income* (1) to *high-status/high-income* (9). Status ratings were averaged for doctors ( $r = .58$ ;  $M = 7.99$ ,  $SD = 0.86$ ) and for psychologists ( $r = .56$ ;  $M = 6.28$ ,  $SD = 1.22$ ).

## Results

### Metastereotype Manipulation Check

**Generic vs. specific metastereotyping** — We used the same approach as in Study 1 to check that we had activated a generic metastereotype rather than a specific metastereotype. Consistent with the activation of a generic metastereotype, the percentage of metastereotypes that participants reported in the negative metastereotype condition ( $M = 74\%$ ,  $SD = 28\%$ ) and the positive metastereotype condition ( $M = 77\%$ ,  $SD = 27\%$ ) were both significantly greater than 25%,  $t_{\text{negative}} = 11.82$ ,  $p < .001$ ;  $t_{\text{positive}} = 12.63$ ,  $p < .001$ .

**Metastereotype valence** — As in Study 1, we performed a 2 (metastereotype condition: negative vs. positive)  $\times$  2 (audience group membership: ingroup vs. outgroup) between-subjects ANOVA on the measure of metastereotype valence. This analysis revealed a main effect of metastereotype condition,  $F(1, 95) = 5.02$ ,  $p = .03$ ,  $\eta_p^2 = .05$ : Confirming the effectiveness of this manipulation, junior doctors' impressions of psychologists were perceived to be significantly less positive in the negative metastereotype condition ( $M = 4.75$ ,  $SD = 0.19$ ) than in the positive metastereotype condition ( $M = 5.34$ ,  $SD = 0.18$ ). Again, there was no significant main effect of audience group membership,  $F(1, 95) < 0.001$ ,  $p = 0.98$ ,  $\eta_p^2 < .001$ , nor any significant interaction between metastereotype condition and audience,  $F(1, 95) = 1.88$ ,  $p = 0.17$ ,  $\eta_p^2 = .02$ .

**Content analysis of participants' metastereotypes** — As in Study 1, we performed a content analysis on the metastereotypes that participants had reported in order to further confirm the valence of the generic metastereotypes and to confirm that they were not specifically related to outgroup helping. Six keywords were generated that had five or more descriptors. As in Study 1, descriptors that were relevant to a keyword cluster were assigned to it if present within either of the two metastereotype conditions. Table 4 shows the results of a cross-tabulation of the six keywords within the two metastereotype conditions. Two keywords (scientific and status) were mostly used in negative terms and were combined to form an index of negative metastereotyping. Two keywords (empathetic and behavior experts) were mostly used in a positive way and combined to form an index of positive metastereotyping. Corroborating the evidence from the previous metastereotype valence manipulation check, negative metastereotyping occurred significantly more frequently in the negative metastereotype condition (39) compared with the positive metastereotype condition (12),  $\chi^2(1) = 14.29$ ,  $p < .001$ , and positive metastereotyping occurred significantly less frequently in the negative metastereotype condition (2) compared with the positive metastereotype condition (30),  $\chi^2(1) = 24.50$ ,  $p < .001$ .

Table 4

Analysis of Keywords Extracted from Participants' Metastereotypes in Study 2

Keywords	Descriptors	Occurrence in Each Metastereotype Condition		$\chi^2$	Two-tailed <i>p</i>
		Negative	Positive		
1. Scientific	Not a real science vs. analytical	26	10	10.10	.001
2. Clever	Not as clever vs. intelligent	18	17	1.42	.234
3. Lazy	Lazy vs. hardworking	10	8	0.98	.322
4. Status	Not paid as much vs. well-educated	13	2	10.43	.001
5. Behaviour experts	N/A vs. good at assessing behaviour	0	15	18.89	<.001
6. Empathetic	Don't really help people vs. understanding/helpful/empathize with others	2	15	12.80	<.001

*Note.* Descriptors are exact expressions used by participants. Descriptors have been presented in terms of valence: the negative descriptors are presented first, and they are followed by descriptors that were in used in a positive sense. Descriptors that were relevant to a keyword cluster were assigned to it if present within either of the two metastereotype conditions. Unless otherwise stated, all descriptors within a keyword cluster matched the valence of the relevant metastereotype condition.

There were 17 occurrences of help-related metastereotypes out of 136 responses (12.5%) in Study 2 compared to only 2 out of 112 (1.79%) in Study 1. This greater percentage of help-related metastereotypes is likely to have been because Study 2 was concerned with helping professions (psychologists and junior doctors), whereas Study 1 was not (Keele University and the University of Birmingham). The help-related metastereotypes occurred more frequently in the positive metastereotype condition (15 cases) than in the negative metastereotype condition (2 cases). Hence, being “unhelpful” was a relatively weak specific negative metastereotype and, consequently, it was not likely to explain greater outgroup helping in the negative metastereotype condition. Indeed, given that participants are motivated to conform to the outgroup's positive expectations (van Leeuwen, 2007), the greater number of helping-related metastereotypes in the positive condition should have provided a conservative test of the social identity impression management predictions because it would result in a conformity effect in the positive metastereotype condition that would work against the outgroup helping effect in the negative metastereotype condition. Hence, the pattern of helping-related metastereotypes provided a stringent test of our hypotheses, rather than a biased test in favor of them.

### Group Status Check

A 2 (metastereotype condition: positive vs. negative) x 2 (audience group membership: ingroup vs. outgroup) x 2 (target group: ingroup vs. outgroup) mixed-model ANOVA was performed with ratings of group status as the repeated measure. There was significant main effect of target group,  $F(1, 95) = 195.77, p < .001, \eta_p^2 = .67$ . Participants perceived the ingroup to be of a lower status ( $M = 6.31, SD = 0.11$ ) than the outgroup ( $M = 7.99, SD = 0.09$ ). This main effect was qualified by a significant three-way interaction involving metastereotype condition and audience group membership,  $F(1, 95) = 3.91, p = .05, \eta_p^2 = .04$ . In order to ensure the validity of our manipulation of group status, it was important to confirm that this three-way interaction did not qualify the main effect of target group in a disordinal manner (i.e., such that the simple main effect was significant in some conditions but not in others). To investigate this issue, we used a paired samples *t* test to establish that participants rated the ingroup as having a significantly lower status than the outgroup in each of the four conditions of the metastereotype condition (positive vs. negative) and audience group membership (ingroup vs. outgroup) between-subjects design.

The results confirmed that this was the case (all  $ps \leq .001$ ). Hence, participants always viewed their ingroup as a lower status group, regardless of which condition they were in.

### Main Analysis

A univariate ANOVA was used to investigate the effect of metastereotype condition, audience group membership, ingroup identification, perceived reputational benefit, and their interaction terms on participants' expressed intention to help the outgroup. The results of this analysis are displayed in Table 5.

Table 5

*ANOVA Model Results for the Effect of Metastereotype Condition, Audience Group membership, Ingroup Identification, and Reputational Benefit on Expressed Intentions to Help the Outgroup*

Effect	<i>F</i>	Two-tailed <i>p</i>	$\eta_p^2$
Metastereotype Condition (MC)	1.11	.294	.01
Audience Group Membership (AUD)	0.50	.481	.01
Ingroup Identification (ID)	1.78	.186	.02
Perceive Reputational Benefit (PRB)	2.22	.140	.03
MC x AUD	3.28	.074	.04
MC x ID	1.63	.205	.02
MC x PRB	0.57	.453	.01
AUD x ID	0.53	.467	.01
AUD x PRB	0.46	.502	.01
ID x PRB	2.21	.141	.03
MC x AUD x ID	4.23	.043	.05
MC x AUD x PRB	3.67	.059	.04
AUD x ID x PRB	0.58	.450	.01
MC x ID x PRB	1.02	.316	.01
MC x AUD x ID x PRB	4.70	.033	.05

*Note.* List wise deletion was applied throughout for missing data.

Consistent with Study 1, there was a significant three-way interaction between metastereotype condition, audience group membership, and ingroup identification. Additionally, consistent with our predictions, this effect was qualified by a significant four-way interaction between metastereotype condition, audience group membership, ingroup identification, and perceived reputational benefit. To decompose this four-way interaction, we estimated the simple three-way interactions between perceived reputational benefit (the key moderator variable), audience and metastereotype condition for high and low identifiers. This revealed a significant simple three-way interaction between metastereotype condition, audience and appraised benefit in predicting intentions to help the outgroup for high identifiers ( $CI_{95\%} = [-3.232, -1.151]$ ,  $p = .032$ ). To interpret this interaction, and given the modest sample size, we generated robust standard errors for estimated marginal means using stratified bootstrap re-sampling (Preacher, Rucker, & Hayes, 2007; Shrout & Bolger, 2002) and then computed pairwise contrasts for the effect of metastereotype condition in our design. Table 6 presents the means and standard deviations for these contrasts. As expected, when perceived reputational benefit was high, high identifiers in the outgroup audience condition expressed significantly greater intentions to help the outgroup when metastereotype valence was negative rather than positive ( $M_{\text{difference}} = 1.76$ ,  $BCa\ CI_{95\%} = [.765, 2.862]$ ,  $p = .002$ ). In contrast, when perceived reputational benefit was low, high identifiers in the outgroup audience condition actually expressed significantly *weaker* intentions

to help the outgroup when metastereotype valence was negative rather than positive ( $M_{\text{difference}} = -3.11$ ,  $BCa\ CI_{95\%} = [-4.428, -2.220]$ ,  $p < .001$ ).

Table 6

*Intention to Help the Outgroup as a Function of Metastereotype Condition, Ingroup Identification, Audience Group Membership, and Perceived Reputational Benefit.*

	High PRB				Low PRB			
	Ingroup Audience		Outgroup Audience		Ingroup Audience		Outgroup Audience	
	High ID	Low ID	High ID	Low ID	High ID	Low ID	High ID	Low ID
Positive Metastereotype	3.72 (1.21)	1.70 (1.54)	3.43 (2.68)	3.12 (1.98)	3.16 (1.49)	3.26 (1.24)	4.77 (1.94)	3.42 (1.25)
Negative Metastereotype	3.06 (2.41)	3.83 (1.54)	5.19 (0.67)	2.57 (1.98)	3.42 (1.54)	3.71 (1.40)	1.66 (2.44)	5.11 (2.67)

*Note.* PRB = Perceived reputational benefit. High and low identifiers and high and low PRB are established at plus and minus one standard deviation from the mean respectively. Values outside the parenthesis are estimates and based on 1,000 stratified bootstrap samples – with identification as the stratification variable. Values inside parenthesis are standard deviations (*SD*), while those outside the parenthesis are means (*M*). Standard deviations are the products of the bootstrapped standard errors and the square root of the relevant cell *n*-size.

In contrast, the three-way interaction between perceived reputational benefit, metastereotype condition and audience did not reliably explain low identifiers' intentions to offer help to the outgroup ( $CI_{95\%} = [-.754, 3.085]$ ,  $p = .231$ ). Hence, we did not probe the simple difference for these group members.

## Discussion

Study 2 showed that members of a low status group (psychology students) expressed a greater intention to offer help to a high status group (junior doctors) when they were high identifiers who had considered a negative metastereotype and who believed that their offers of help would be viewed by members of the outgroup and that such offers were likely to improve the image of the ingroup. Indeed, when they believed that such offers were *not* likely to improve the image of their group, they showed a significant *reduction* in outgroup helping when metastereotype valence was negative. Hence, these results provide conclusive support for the key moderating role of perceived reputational benefit.

Interestingly, Study 2 also showed that, under some conditions, low identifiers expressed significantly greater intentions to help the outgroup when metastereotypes were negative rather than positive. Mindful of the unreliability of the effects among low identifiers, we further reason that such members' outgroup helping is unlikely to be motivated by the desire to improve the social standing of the ingroup. Instead, it may reflect deference to the high status outgroup especially when the intergroup status difference is reinforced by negative metastereotyping (Rubin & Hewstone, 2004). Low identifiers' outgroup helping may also reflect a form of individual mobility; a behavior that is common among low identifiers (e.g., Ellemers, Spears, & Doosje, 1997). In particular, low identifiers may offer to help the outgroup in order to signal their preference for the outgroup and their lack of allegiance to the ingroup. Future research is required in order to better understand the motives for low identifiers' outgroup helping.

Finally, Study 2 confirmed that participants in all conditions viewed their psychology ingroup as being of significantly lower status than the junior doctors outgroup. Hence, the results of Study 2 represent a clear case of a low status group engaging in outgroup helping.

Critically, future research should consider the possibility that participants' desire to help the outgroup may be triggered by explicit statements about the perceived reputational benefit of such actions. In particular, it is possible that statements that measured perceived reputational benefit cued participants to the possibility that helping the outgroup was a means of improving their reputation. Note that this explanation does not apply to Study 1 because Study 1 did not include any statements regarding perceived reputational benefit.

The use of less obtrusive measures of perceived reputational benefit may help to reduce the potential influence of demand characteristics in future research. For example, researchers may make use of distractor tasks; making the perceived reputational benefit measures appear unrelated to the other measures; embedding the measures among other information; and/or having a better cover story for why this statements are included. In addition, researchers may use Rubin, Paolini, and Crisp's (2010) Perceived Awareness of the Research Hypothesis scale in order to provide empirical evidence that demand characteristics are not influencing the research results.

## General Discussion

Previous research has found that members of low status groups sometimes offer help to high status groups (Hopkins et al., 2007; van Leeuwen & Täuber, 2011, 2012). This outgroup helping effect has been shown to occur in relation to outgroups that hold negative metastereotypes (van Leeuwen & Täuber, 2011) rather than positive metastereotypes (van Leeuwen & Täuber, 2012, Study 3) and only when group members feel able to help (van Leeuwen & Täuber, 2011). It is predicted by a concern about the ingroup's image, and it boosts ingroup identification and self-esteem (van Leeuwen & Täuber, 2011).

In explaining this outgroup helping effect, researchers have ruled out explanations based on group members' personal self-image (van Leeuwen & Täuber, 2011) and the activation of specific, helping-related metastereotypes (van Leeuwen & Täuber, 2012, Study 2; van Leeuwen et al., 2014, Study 3). Instead, low status groups' outgroup helping has been explained as a social identity impression management strategy (Hopkins et al., 2007; van Leeuwen, 2007; van Leeuwen & Täuber, 2010, 2011, 2012), and the extant evidence is consistent with this explanation. Nonetheless, clear evidence for theoretically associated moderator variables has been lacking. Low status groups face several countervailing psychological forces when it comes to outgroup helping (e.g., contravening ingroup interests, ingroup bias, threatening the outgroup's power), and it is important to understand the conditions under which the motive for a positive ingroup image overcomes these forces in order to provide a rigorous assessment of the social identity account. In this spirit, the present research focused on *when* members of low status groups would be most likely to offer help to members of high status groups. In particular, it focused on the interactive moderating effects of ingroup identification, audience group membership, and perceived reputational benefit on low status groups' outgroup helping.

Study 1 found that members of a low status group (Keele University students) were most likely to offer help to raise funds for a high status group (University of Birmingham students) when they were high identifiers who had considered a negative metastereotype and believed that their responses would be viewed by an outgroup member. Study 2 found a similar interaction effect in an intergroup context that referred to psychology students (low status ingroup) and junior doctors (high status outgroup) and showed that it was qualified by perceived reputational benefit: Members of the low status group expressed a significantly greater intention to support the high status outgroup when they were high identifiers who had reported a negative metastereotype and who believed that their offers

of support would be viewed by members of the outgroup and that such offers were likely to improve the image of the ingroup.

These results are consistent with the social identity impression management explanation: Exposure to a negative metastereotype is necessary to activate the motive for a positive ingroup image. A relatively high level of ingroup identification is required in order to make this motive meaningful to ingroup members and, consequently, influence their behaviour. An outgroup audience is necessary if ingroup members are to believe that the source of the negative metastereotype may be influenced by their helping behavior. Finally, perceived reputational benefit is necessary in order for ingroup members to commit to undertaking helping behaviour as an impression management strategy.

The present research makes a significant contribution to the literature in this area by providing the first evidence that individual differences in ingroup identification and perceived reputational benefit moderate outgroup helping (cf. Hopkins et al., 2007; van Leeuwen & Täuber, 2011; van Leeuwen et al., 2014, Study 1). Likewise, the present research provides the first evidence that audience group membership moderates outgroup helping in a manner that is theoretically consistent with the social identity explanation (cf. van Leeuwen et al., 2014, Study 3).

It is also notable that our research used generic metastereotypes rather than specific metastereotypes in order to rule out the possibility that our participants offered to help the outgroup in order to refute a specific aspect of a metastereotype (e.g., that the ingroup is unhelpful, uncharitable, lacks warmth, etc.). Our content analyses of participants' metastereotypes in both studies confirmed that this was not a tenable explanation for our results.

## Limitations and Future Research

Although the current investigation supported the social identity impression management explanation of outgroup helping, it is important to acknowledge several methodological limitations.

First, it would have been informative to include a control condition in our research design in which participants considered neutral metastereotypes rather than positive or negative metastereotypes. This control condition would have provided a useful baseline against which to compare the independent effects of positive and negative metastereotyping. Although this control condition is desirable, it may be difficult to obtain a neutral generic metastereotype in practice because generic metastereotypes tend to be naturally skewed towards negativity (e.g., van Leeuwen et al., 2014, Study 3; van Leeuwen & Täuber, 2012, Study 2). This lack of control over the specific metastereotypes that people reported represents a limitation of the present research.

Similarly, it would have been informative to include a private, no audience condition in the present research. This condition would have allowed us to investigate the suppressor effect of an audience on outgroup helping that has recently been identified by van Leeuwen et al. (2014). In addition, the present research focused on pledges of help to outgroup members without comparable assessments of pledges of help to ingroup members. Again, such a comparison would be useful to assess the impact of ingroup bias on intergroup helping behavior (e.g., van Leeuwen & Täuber, 2012, Study 2; van Leeuwen et al., 2014, Study 3). Also, measures of perceived reputational benefit of helping may invoke demand characteristics and/or trigger social desirability concerns that compromise the ecological validity of the research. Although measuring this variable as we have represents an important first step, we recommend that future research in the area could consider manipulating this variable experimentally to provide a stronger causal role of this variable.

Another limitation of this study is that it did not assess actual helping behavior, which is not the same as pledges or expressed intentions to help the outgroup. One could pledge to help an outgroup member but not fulfil that pledge with helping behavior. Of course, promising to help someone, particularly when this is communicated to the intended target, is a behavior in its own right that may yield reputational benefits provided that there is no indication that the pledger intends to willfully break the pledge. Hence, in some cases, the expressed intention to help the other may be sufficient to improve reputation, and in that case actual helping behaviour may not be necessary. However, in other cases, actual objective helping behaviour may be required in order to bring about reputational benefits. Future research should explore the conditions under which offers of outgroup help and actual outgroup help are necessary and sufficient to influence ingroup reputation. Future research should also attempt to replicate the present research results using measures of actual helping behavior.

Furthermore, it is worth noting that we used student groups and operationalized group status in terms of prestige of their university (Study 1) and social standing in terms of income and social reputation of their discipline (Study 2). These may not be deeply entrenched group identities or status distinctions, or not necessarily the most central identities to participants in the current research. Although these identities are directly tied to the students' future job prospects and therefore can be expected to have important implications for their well-being, future research could test the generalizability of the present findings to more severe intergroup status contexts.

Future research in this area should consider the conditions under which low identifiers engage in outgroup help. In theory, low identifiers may offer help to outgroup members as a form of outgroup favoritism that acknowledges their higher status (Rubin & Hewstone, 2004) and/or as a signal of individual mobility (Ellemers et al., 1997). For example, it might be expected that low identifiers will offer to help an outgroup when a metastereotype is salient if they believe that doing so will enable them to positively differentiate their self from the ingroup as an individual mobility strategy (Ellemers, van Knippenberg, & Wilke, 1990; cf. van Leeuwen & Täuber, 2011).

Future research should also consider how members of high status groups interpret and respond to offers of help from members of low status groups (Nadler, 2002). Again, individual difference moderator variables may play a key role in determining how this dynamic interaction operates. For example, there is evidence that high self-monitors (Snyder, 1974) are more effective at managing their impressions than low self-monitors (e.g., Turnley & Bolino, 2001). Hence, high self-monitoring members of low status groups may be better skilled at presenting offers of help to high status outgroups in ways that do not threaten them and that are therefore more likely to improve the ingroup's reputation.

More broadly, future research should consider the possibility that outgroup helping is not the only impression management strategy that can be used to improve ingroup reputation and social identity. For example, in the context of an intergroup conflict, low status groups may put on displays of competence and power in order to improve their group's reputation and dispel negative metastereotypes held by high status groups (e.g., South Korean displays of military power following North Korea's upgrade of its nuclear capabilities). It would be interesting to investigate whether social identity impression management strategies of this type are also moderated by metastereotype condition, ingroup identification, audience group membership, and perceived reputational benefit.

Finally, and in terms of statistical power, we acknowledge that the sample sizes across the two studies are modest - particularly in Study 2. It is possible that some effects may have not have been detected as a result. That said, the fact that we were able to detect the key hypothesised effects even with our modest sample sizes, and that we found a consistent pattern of results across two studies, suggests that the effect of interest may be relatively robust.

Relatedly, we also acknowledge that our student sample poses difficulties in the extent to which the results from the current investigation are generalizable. Future research could therefore aim to address these concerns by (a) optimizing the sample sizes required to power their designs based on the effect size estimates presented in the current study; and (b) aiming for a more diverse sample including members of the broader population.

## Practical and Social Implications

As discussed previously, there are a number of countervailing psychological forces that might be expected to inhibit low status groups from helping high status outgroups, including ingroup interests, ingroup bias, and concern about threatening the outgroup (e.g., van Leeuwen & Täuber, 2012, Study 2; van Leeuwen et al., 2014, Study 3; Nadler, 2002; Nadler, Harpaz-Gorodeisky, & Ben-David, 2009). These forces are likely to be particularly difficult to overcome when intergroup relations are hostile. However, it is precisely under these hostile conditions that intergroup helping might be most beneficial to intergroup relations. Indeed, understanding when two hostile groups are most likely to extend help to one another may offer a path towards the reduction of intergroup conflict and hostility. The present research suggests several conditions that might increase the probability that low status groups will help high status groups. Again, a key question for future research is how high status groups respond to such offers of help (Nadler, 2002). In order to reduce intergroup hostility, it is important that we understand not only the conditions under which low status groups offer help to high status groups, but also the conditions under which high status groups receive this help without feeling threatened and then reciprocate prosocial behavior back to the low status group.

The complexity of these intergroup relations can be illustrated with a real world political example that relates to the message strategies that the relatively low power country Saudi Arabia used to restore its reputation following the 9/11 terror attack on the relatively high power USA (Zhang & Benoit, 2004). During this period, Saudi prince Alwaleed offered to donate \$10 million to New York. However, his intentions were doubted by New York Mayor Giuliani, who rejected the donation because he felt that it came with unwanted advice about how to conduct USA foreign policy. In response, the Saudi prince stated: "I wanted to show the good face of the Arab world." Hence, for outgroup helping to operate as a means of restoring ingroup reputation and perhaps even reducing intergroup conflict, it is important that future research on intergroup helping takes into consideration the perceptions and behaviours of both ingroup and outgroup members.

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## Competing Interests

The authors have declared that no competing interests exist.

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