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# A normative perspective of discrimination in the minimal group paradigm: Does it apply to both Ingroup love and outgroup hate?<sup>☆</sup>

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## ABSTRACT

Research based on the normative perspective on intergroup discrimination showed that participants in the minimal group paradigm (MGP) discriminate because they perceive it to be in line with the ingroup's expectations (Iacoviello & Spears, 2018, 2021). The present set of studies examined whether these normative dynamics are peculiar to 'ingroup love', or whether they also apply to 'outgroup hate' (Brewer, 1979). Three studies ( $N_s = 405, 210, 307$ ) first examined norm perceptions and showed that 1) participants perceived outgroup hate to be proscribed by ingroup members less than by an external body (i.e., social scientists), and 2) they perceived ingroup love to be promoted by ingroup members, but proscribed by the external body. Study 3 further showed that both ingroup love and outgroup hate behaviors were dependent on the imagined audience, increasing when participants imagined the presence of the ingroup vs. an external body. Finally, Study 4 ( $N = 410$ ) showed that both ingroup love and outgroup hate increased when the ingroup norm was pro-discriminatory (vs. anti-discriminatory). The discussion focuses on the relevance of the normative perspective to explain both ingroup love and outgroup hate in the MGP.

In the 1970s, Henri Tajfel created the minimal group paradigm.<sup>1</sup> A Jew himself and deeply affected by the intergroup hostilities epitomized by the extermination of Jews and other social groups during the Holocaust, his motivation was to better understand the roots of intergroup discrimination (i.e., the preferential treatment of the ingroup as compared to the outgroup). Implementing an artificial situation in the lab was designed to provide insights into why people show such discriminatory behaviors. To his surprise, intergroup discrimination appeared in the most minimal conditions, as a mere result of intergroup categorization (Billig, 1973; Billig & Tajfel, 1973; Tajfel, 1970; Tajfel, Billig, Bundy, & Flament, 1971). His early explanation of this effect was that people discriminate because of a "generic norm of behavior toward outgroups" (Tajfel, 1970, p. 98). However, this normative account was discarded in the final formulation of social identity theory, which posits that intergroup discrimination is the result of people's basic motive to seek positive distinctiveness between the ingroup and a relevant outgroup (Tajfel & Turner, 1979). In line with previous research on this theme (see below), we return to consider the normative basis for such

minimal group discrimination, and more specifically, we examine whether it applies to both ingroup love and outgroup hate.

## 1. A normative perspective of intergroup discrimination

Recently, Tajfel's first intuition has resurfaced through the normative perspective of intergroup discrimination (NPID; Iacoviello & Spears, 2018, 2021). The general assumption is that intergroup discrimination is fundamentally rooted in social norms, and this is true even in minimal groups. More specifically, members of minimal groups display discriminatory behaviors because they believe this is expected from them by other ingroup members. In other words, when participants must make sense of the intergroup situation and decide how they ought to behave, they (or at least some of them) would mainly focus on what they should do to be recognized as good group members. Research indeed showed that participants in natural, as well as in minimal group contexts, perceive the ingroup norm to promote intergroup discrimination (i.e., the ingroup norm is perceived as pro-discriminatory; Iacoviello &

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<sup>1</sup> Although experiments on minimal groups may have been initiated by Jaap Rabbie (see Brown, 2020), the theoretical novelty that the minimal group paradigm brought to the study of intergroup discrimination is undoubtedly attributed to Henri Tajfel.

Spears, 2018). This is consistent with research showing that ingroup loyalty is an important value (Graham, Haidt, & Nosek, 2009), and that discriminatory members are judged as better ingroup members than fair members (Assilaméhou-Kunz, Postmes, & Testé, 2020). Seeking for validation within the ingroup therefore results in conforming to this pro-discrimination expectation. As an illustration, Iacoviello and Spears (2021) revealed that intergroup discrimination in an allocation task was as strong in a standard condition where they received no particular instructions as when participants were explicitly told to think about how they would appear to ingroup members. Of interest, intergroup discrimination was reduced when they were diverted from this mindset, that is, when they were asked to think about the way a body ostensibly promoting anti-discrimination norms (i.e., social scientists) would perceive them. Thus, focusing individuals on another observing party of their behavior with different implicit norms can become an alternative source of behavioural rules.

To sum up, participants in the MGP perceive that the ingroup norm is pro-discriminatory by default and they tend to act accordingly. This is also illustrated by the finding that participants displaying intergroup discrimination in the MGP (or at least believing they did so) inferred that the ingroup reaction to their behavior would be more positive than those displaying fairness, unless the ingroup norm was explicitly anti-discriminatory (Iacoviello & Spears, 2021, for a natural setting see also Platow, Hoar, Reid, Harley, & Morrison, 1997). This tendency is reflected in measures of self-esteem and belonging, such that discriminating participants reports higher levels of both feelings than those who had shown fairness (Hunter et al., 2017; Iacoviello, Berent, Frederic, & Pereira, 2017; Iacoviello & Spears, 2021; Scheepers, Spears, Manstead, & Doosje, 2009). In sum, this set of evidence speaks in favor of the NPID, according to which normative dynamics are crucial in explaining intergroup discrimination in the MGP. This conclusion can, however, be challenged because it remains to be seen whether the NPID only applies to instances of ingroup love, or also to outgroup hate.

## 2. Ingroup love and outgroup hate

According to the literature, intergroup discrimination is conceptually split into two components: Ingroup love (or favoritism) and outgroup hate (or derogation; Brewer, 1979, 1999). Ingroup love typically refers to instances of positivity towards the ingroup, which are not necessarily concomitant to negativity towards the outgroup. For example, ingroup love can be assessed through the preferential evaluation of ingroup compared to outgroup members on positive traits (e.g., Rutland et al., 2007), or through the allocation of more positive (or fewer negative) resources to ingroup members (without it affecting outgroup members; e.g., Halevy, Weisel, & Bornstein, 2012). Conversely, outgroup hate is defined by a certain negativity towards the outgroup and is sometimes assessed through the preferential evaluation of ingroup compared to outgroup members on negative traits, or through the allocation of fewer positive (or more negative) resources to outgroup members (without it affecting ingroup members). Research has shown that the tendency towards ingroup love is typically stronger than outgroup hate, a discrepancy sometimes referred to as the positive-negative asymmetry (Blanz, Mummendey, & Otten, 1995; Gardham & Brown, 2001; Halevy, Bornstein, & Sagiv, 2008; Mummendey & Otten, 1998; for a review, see Brewer, 2017). Ingroup love also develops earlier in childhood than outgroup hate (i.e., 3–5 years old, Aboud, 2003; see also Nesdale, 2017). Some scholars have suggested that ingroup love and outgroup hate are not merely two faces of the same coin and that they operate based on different mechanisms (e.g., Brewer, 2017). For instance, Mummendey and Otten (1998) conclude from their findings that ingroup love is the only form of intergroup discrimination that is observed in minimal groups, outgroup derogation being absent. In accordance, they stated that “the downgrading of an outgroup needs more than mere categorization” (p.139). Among the different explanations of the positive-negative asymmetry (e.g., Gardham & Brown, 2001;

Mummendey & Otten, 1998; Reynolds, Turner, & Haslam, 2000), the normative one is of relevance for our purpose. According to Mummendey and Otten (1998), the positive-negative asymmetry would appear because ingroup love is normative, whereas outgroup hate is not. Outgroup hate being associated with low levels of social desirability, it would not be triggered by the mere categorization in groups. Other factors, such as identity threat, would be necessary to override desirability concerns and allow the emergence of outgroup hate. As an illustration of this claim, ingroup love is sometimes not even recognized as a form of prejudice (Gaertner & McLaughlin, 1983). The implied consequence of such a fundamental distinction between these two components is that what we learn about intergroup discrimination from minimal group settings can only be relevant for real-life instances of ingroup love, but not outgroup hate. Minimal group studies would therefore be of no help when it comes to understanding everyday racism, intergroup conflicts, or even genocides. Thus, on this basis, predictions from the NPID would not apply to these latter phenomena.

There are, however, reasons to believe that ingroup love and outgroup hate share a more common ground than suggested in this literature. Research indeed showed that, despite the fact that outgroup hate was perceived as less normative than ingroup love, intergroup discrimination appeared on both types of behaviors (Amiot & Bourhis, 2003). This is backed by the results of a meta-analysis on the positive-negative asymmetry which revealed that, although weaker than ingroup love, outgroup hate is still observed in the minimal group paradigm (Buhl, 1999). Following from this, we could expect both ingroup love and outgroup hate to appear as the result of normative dynamics. Thus far, normative accounts of the positive-negative asymmetry have only focused on a generic norm (i.e., what people in general are believed to value). Outgroup hate would thus be perceived as counter-normative *in general*. However, research in the NPID framework has shown that contrasting norms emanating from different sources are prevalent in the minimal group paradigm. Although participants primarily rely on the ingroup norm (which is perceived as pro-discriminatory by default), they can also rely on norms associated to social bodies that are external (and often superordinate) to the intergroup context which advocate intergroup fairness (see Iacoviello & Spears, 2018). Therefore, while an external norm may be perceived as clearly proscribing outgroup hate and ingroup love, this should be less true for the ingroup norm. Members of a minimal group may indeed believe that ingroup love, and to some extent outgroup hate as well, can be used as a way to positively respond to the ingroup expectations and behave accordingly.

## 3. The present research

In the present research, we aimed to test whether normative dynamics in the minimal group paradigm, as predicted by the NPID, only apply to ingroup love, or whether they also explain the emergence of outgroup hate. In three studies (Studies 1–3), we examined norm perceptions of ingroup love and outgroup hate. In two studies (Studies 3–4), we further looked at whether and how these norm perceptions translate to behavior, and, specifically, how they affect both ingroup love and outgroup hate.

Based on the NPID, H1 predicts that both perceptions of ingroup love (H1a) and outgroup hate (H1b) vary as a function of the source of the norm. Both discrimination types are perceived as more normative (or less counter-normative) when the source of the norm are ingroup members than when the source of the norm is an external (and egalitarian) body (see Studies 1–3). Specifically, an *external norm* would be perceived as clearly proscribing both outgroup hate and ingroup love. When it comes to the *ingroup norm* however, outgroup hate would be perceived as less counter-normative and ingroup love would even be perceived as normative.

In turn, both types of discrimination behaviors would emerge as a result of (certain) participants trying to conform to the ingroup norm.

H2 further predicts that imagining the presence of the ingroup (vs. an external body) increases both ingroup love and outgroup hate (see Study 3). Finally, H3 predicts that an ingroup pro-discrimination norm (vs. an ingroup anti-discrimination norm) increases both ingroup love and outgroup hate (see Study 4). Prior to the studies, we conducted a pilot study to test the efficacy of the manipulation of the type of intergroup discrimination (ingroup love vs. outgroup hate) which we devised for all the studies.

All studies have been conducted following ethical guidelines specified in the APA Code of Conduct and have received approval from the first author's university's Ethical Committee (Decision file: CUREG-2021-09-93). We report all measures, manipulations, and exclusions in this manuscript or the Supplementary Material. Sample sizes were determined before any data analysis and were not increased after preliminary analyses. Data can be found on the Open Science Framework platform ([https://osf.io/pygkz/?view\\_only=bed1aa75121347c6b54be40412995321](https://osf.io/pygkz/?view_only=bed1aa75121347c6b54be40412995321)). These databases provide sufficient information for an independent researcher to reproduce the reported results.

#### 4. Pilot study

We devised two point-allocation tasks, one measuring ingroup love and the other outgroup hate. We asked participants to divide up points between three ingroup members and three outgroup members, providing them with two options: The first option is the fairness option and is identical in both tasks. In choosing Option 1, each member of the ingroup and the outgroup would receive the same number of points (i.e., 10 points). The second option is the discrimination option and differs according to the task. In the ingroup love task, Option 2 gives 30 points to each ingroup member and 10 points to each outgroup member. So, compared to Option 1, the ingroup is advantaged (each member receives 20 points more), but the outgroup is not disadvantaged (members do not receive fewer points). In the outgroup hate task, Option 2 gives 10 points to each ingroup member and penalizes outgroup member with a negative score of 10 points. So, compared to Option 1, the ingroup members is not advantaged (members receive the same number of points), but the outgroup is disadvantaged (each member receives 20 points less). The fact that Option 2 resulted in deducting points from outgroup members was meant to reinforce the feeling that outgroup members would be harmed (see Fig. 1).

For these measures to be valid, we expected the ingroup love option to be perceived as benefitting ingroup members, and the outgroup hate

option as harming outgroup members. Both options, however, should be perceived as creating a similar intergroup discrepancy. Indeed, any effect of the manipulation in the coming studies should be attributed to *the way* the favorable discrepancy between the ingroup and the outgroup is achieved, and not *the extent* to which this discrepancy is achieved.

#### 4.1. Method

##### 4.1.1. Participants and design

Participants were recruited on Prolific (a filter was applied on the Prolific platform to only recruit participants living in the US) and were compensated with 0.88 pounds sterling (i.e., the equivalent in USD). As we had a within-participants design with no experimental condition, we aimed at recruiting about 100 participants. A total of 100 participants (60 women, 36 men, 3 indicated another gender and 1 preferred not to say;  $M_{age} = 32.69$  years,  $SD_{age} = 11.99$ ) took part in the study. A sensitivity analysis in G\*Power indicated that the final sample size gave us an 80% probability of detecting effects with a size of  $d = 0.28$  or greater. Thus, the sample was large enough to detect small-size effects.

##### 4.1.2. Procedure and measures

The first instruction asked participants to imagine an intergroup context where membership in one of two groups (the Dusek group and the Tausig group) is based on their members' artistic preferences (see Iacoviello & Spears, 2021, for the minimal group procedure). Then we presented the two types of point-allocation tasks (one after the other in randomized order). In each task, we asked participants to imagine a member of the Dusek group had chosen Option 2 (the discrimination option) instead of Option 1 (the fairness option), and to indicate the extent to which this would: 1) *benefit the Dusek group* (i.e., the ingroup), 2) *harm the Tausig group* (i.e., the outgroup), and 3) *create a discrepancy between members of the Dusek group and members of the Tausig group*. Response scales had 7-points (1 "Not at all" to 7 "Totally"). Participants eventually provided their demographics.

#### 4.2. Results and discussion

We performed three repeated-measure ANOVAs with the discrimination type as the repeated-measure factor. The ANOVA on *ingroup benefit* showed that Option 2 (i.e., intergroup discrimination) was perceived as benefitting the ingroup to a larger extent in the ingroup love task ( $M = 6.11$ ,  $SE = 0.16$ ) than in the outgroup hate task ( $M =$

A

	Member 193 of Dusek Group	Member 223 of Dusek Group	Member 417 of Dusek Group	Member 71 of Tausig Group	Member 264 of Tausig Group	Member 386 of Tausig Group
Option 1	10	10	10	10	10	10
Option 2	30	30	30	10	10	10

B

	Member 193 of Dusek Group	Member 223 of Dusek Group	Member 417 of Dusek Group	Member 71 of Tausig Group	Member 264 of Tausig Group	Member 386 of Tausig Group
Option 1	10	10	10	10	10	10
Option 2	10	10	10	-10	-10	-10

**Fig. 1.** Manipulation of the type of intergroup discrimination. In both conditions, Option 1 is the fairness option and Option 2 is the discrimination option. In the ingroup love condition (A), the discrimination option gives more points to the ingroup while it does not affect the points of the outgroup. In the outgroup hate condition (B), the discrimination option does not affect the points given to the ingroup, while it impairs the points given to the outgroup.

5.45,  $SE = 0.20$ ),  $F(1,99) = 9.62$ ,  $p = .003$ ,  $\eta_p^2 = 0.09$ . The analysis on *outgroup harm* showed that Option 2 was perceived as harming the outgroup to a larger extent in the outgroup hate task ( $M = 5.65$ ,  $SE = 0.19$ ) than in the ingroup love task ( $M = 4.20$ ,  $SE = 0.21$ ),  $F(1,99) = 30.76$ ,  $p < .001$ ,  $\eta_p^2 = 0.24$ . Finally, the analysis on *intergroup discrepancy* showed no difference between the ingroup love task ( $M = 5.84$ ,  $SE = 0.16$ ) and the outgroup hate task ( $M = 6.00$ ,  $SE = 0.15$ ),  $F(1,99) = 1.20$ ,  $p = .276$ ,  $\eta_p^2 = 0.01$ .

The pilot study attested the validity of the ingroup love and outgroup hate tasks. Ingroup love was perceived as benefitting the ingroup, while outgroup hate was perceived as harming the outgroup. Moreover, both discrimination types were perceived as creating a relatively similar degree of intergroup discrepancy. In the following studies, we devised a manipulation of the type of intergroup discrimination based on these two tasks.

## 5. Study 1

We conducted a first study to better understand norm perceptions of ingroup love and outgroup hate in minimal groups. Predictions deriving from the NPID (Iacoviello & Spears, 2018, 2021) first suggest that perceptions of ingroup love vary as a function of the source of the norm. Ingroup love is perceived as counter-normative when the source of the norm is an external body but normative when the source of the norm is the ingroup (H1a). Second, such a discrepancy should also be observed on outgroup hate, such that outgroup hate is perceived as counter-normative when the source of the norm is an external body but less so when the source of the norm is the ingroup (H1b). In order to examine normative perceptions, we used the self-presentation paradigm (Jellison & Green, 1981). Participants typically answer an attitude scale, or a task measuring a certain construct, and do so twice: first under *self-enhancement instructions* (i.e., they answer in such a way to provide a good image of themselves) and then under *self-depreciation instructions* (i.e., they answer in such a way to provide a bad image of themselves). When the attitude score under the self-enhancement instructions is higher than under the self-depreciation instructions, this indicates that the specific construct (in this case, intergroup discrimination) is perceived as being normatively promoted. The reverse tendency, however, indicates that the construct is perceived as counter-normative. In the present study, we will manipulate the type of intergroup discrimination (ingroup love vs. outgroup hate) and the social body towards which they are asked to provide a good and a bad image of themselves (ingroup members vs. external body).

### 5.1. Method

#### 5.1.1. Participants and design

Participants living in the US were recruited on Prolific and were compensated with 0.88 pounds sterling (i.e., the equivalent in USD). We aimed at recruiting about 100 participants per experimental condition. Because of the 2 (discrimination type)  $\times$  2 (source of the norm) design, we recruited a total of 405 participants (207 women, 192 men, 3 indicated another gender and 3 preferred not to say;  $M_{age} = 40.75$  years,  $SD_{age} = 13.79$ ). Only one of them was not an American citizen. A sensitivity analysis in G\*Power indicated that the final sample size gave us an 80% probability of detecting effects with a size of  $d = 0.28$  or greater. Thus, our sample was large enough to detect small-size effects.

#### 5.1.2. Procedure and measures

We followed the same procedure as Iacoviello and Spears (2021) to assign participants to minimal groups. All participants became members of the Dusek group (vs. Tausig group) allegedly based on their artistic preferences. Participants were then asked to allocate points to the ingroup and the outgroup, either in the ingroup love condition or the outgroup hate condition. In the self-presentation paradigm, this standard task is not directly informative regarding norm perceptions but

assesses participants' discriminatory behavior in both the ingroup love and outgroup hate conditions (i.e., participants allocate points as they wish). Afterwards, they were asked to perform the same point-allocation task in such a way as to make a positive impression of themselves (self-enhancement instruction). Here, we manipulated the source of the norm. The social body towards which they would make this impression was either other ingroup members or social scientists working on intergroup relations. They then did the same task in such a way as to make a negative impression on the same social body (self-depreciation instruction). Social scientists were chosen as the external body, because they are supra-ordinate to the specific intergroup situation (i.e., they can be seen as "moral referees" of the ingroup-outgroup relationship), and they are perceived as promoting anti-discrimination norms in the MGP (Iacoviello & Spears, 2018). Finally, participants provided their demographics, were fully debriefed, and provided their consent for the usage of their data.

### 5.2. Results

We first looked at participants' actual behavior using their answers in the standard point-allocation task. Then, we tested our hypotheses on norm perceptions (H1a and H1b) by examining participants' intergroup behavior under self-enhancement and self-depreciating instructions.

#### 5.2.1. Intergroup discrimination behavior (Standard Instructions)

We conducted a logistic regression on intergroup behavior (0 = fairness option, 1 = discrimination option) with type of intergroup discrimination ( $-1$  = ingroup love,  $1$  = outgroup hate) as the predictor. Results showed a main effect of discrimination type,  $b = -1.40$ , Wald  $X^2(405) = 88.19$ ,  $p < .001$ ,  $e^b = 0.25$ . Participants were more likely to choose the discrimination option in the ingroup love condition (56.95%) than in the outgroup hate condition (7.45%).

#### 5.2.2. Norm perceptions (self-enhancement and self-depreciating instructions)

We first computed an index of norm perception by subtracting the choice under the self-depreciation instructions from the choice under the self-enhancement instructions ( $M = -0.26$ ,  $SD = 0.87$ ). The index varies between  $-1$  and  $1$ . A positive score indicates that the norm is perceived as pro-discriminatory, while a negative score indicates that the norm is perceived as anti-discriminatory (equalitarian). A score of 0 indicates normative neutrality.

We then performed a linear regression on the index of norm perception with discrimination type ( $-1$  = ingroup love,  $1$  = outgroup hate), source of the norm ( $-1$  = ingroup,  $1$  = external body), and their interaction as predictors. Both the main effects of discrimination type,  $B = -0.35$ ,  $t(404) = -9.44$ ,  $p < .001$ , 95% CI  $[-0.42, -0.27]$ ,  $\eta_p^2 = 0.18$ , and source of the norm,  $B = -0.26$ ,  $t(404) = -7.09$ ,  $p < .001$ , 95% CI  $[-0.33, -0.19]$ ,  $\eta_p^2 = 0.11$ , were significant. These main effects were qualified by a Discrimination type  $\times$  Source interaction,  $B = 0.16$ ,  $t(404) = 4.38$ ,  $p < .001$ , 95% CI  $[0.09, 0.23]$ ,  $\eta_p^2 = 0.05$ . As illustrated in Fig. 2 and consistent with H1a, we observed an effect of the source of the norm in the ingroup love condition,  $B = -0.42$ ,  $t(404) = -7.90$ ,  $p < .001$ , 95% CI  $[-0.53, -0.32]$ ,  $\eta_p^2 = 0.14$ , such that the ingroup norm was perceived as pro-discriminatory ( $M = 0.52$ ,  $SE = 0.08$ ; difference from 0:  $t(404) = 6.99$ ,  $p < .001$ ,  $\eta_p^2 = 0.11$ ), while the external norm was perceived as anti-discriminatory ( $M = -0.32$ ,  $SE = 0.08$ ; difference from 0:  $t(404) = -4.22$ ,  $p < .001$ ,  $\eta_p^2 = 0.04$ ). Consistent with H1b, the effect of the source was also significant in the outgroup hate condition though weaker,  $B = -0.10$ ,  $t(404) = -1.97$ ,  $p = .050$ , 95% CI  $[-0.20, -0.00]$ ,  $\eta_p^2 = 0.01$ . Intergroup discrimination was perceived as anti-normative by both sources, but this was more the case for the external body ( $M = -0.69$ ,  $SE = 0.07$ ; difference from 0:  $t(404) = -9.91$ ,  $p < .001$ ,  $\eta_p^2 = 0.20$ ) than the ingroup ( $M = -0.50$ ,  $SE = 0.07$ ; difference from 0:  $t(404) = -6.81$ ,  $p < .001$ ,  $\eta_p^2 = 0.10$ ).





**Fig. 2.** Norm perception according to the source of the norm and the type of intergroup discrimination (Study 1). A positive score indicates a pro-discrimination norm, while a negative score indicates an anti-discrimination (or equalitarian) norm. Error bars represent  $\pm 1$  SE.

### 5.3. Discussion

Results speak in favor of our hypotheses, as norm perceptions for both ingroup love and outgroup hate were contingent on the source of the norm. While participants perceived ingroup love to be promoted by their ingroup, they perceived it as being proscribed by the external entity (H1a). Albeit to a lesser extent, this discrepancy was also found for outgroup hate. While they perceived the external norm to be definitely anti-discriminatory, this was less the case for the ingroup norm (H1b). This indicates that participants perceive outgroup hate to be proscribed to a lesser extent by ingroup members than by an external body. This effect is indeed triggered by some ingroup members still perceiving that outgroup hate is valued by the ingroup. As we were mainly interested in the simple effect of the source of the norm in both the ingroup love and the outgroup hate conditions, we did not postulate the observed interaction between the source of the norm and the type of discrimination which showed an increased effect of the source of the norm in the ingroup love condition as compared to the outgroup hate condition. This is however consistent with our formulation of H1a and H1b.

## 6. Study 2

The second study also examined norm perceptions and was aimed at better understanding the discrepancy observed in Study 1 between ingroup love and outgroup hate with regard to perception of the *ingroup* norm. While ingroup love was perceived as normative, outgroup hate was, overall, perceived as counter-normative. We thus focused here on perceptions of the ingroup norm and disregarded perceptions of the external norm. Research indeed suggests that participants in MGP studies rely most strongly on the ingroup norm (Iacoviello & Spears, 2018; Jetten, Spears, & Manstead, 1996). In order to examine perceptions of the ingroup norm, we used a different approach than in Study 1. Participants first allocated points to ingroup and outgroup members and were then asked to infer how other ingroup members would react to their behavior. Previous studies showed that people believed that the ingroup would react more positively to them displaying intergroup discrimination than fairness (Iacoviello & Spears, 2021, Study 2). This effect was, however, cancelled out when the ingroup norm was explicitly anti-discriminatory (Iacoviello & Spears, 2021, Study 3). These findings therefore suggest that intergroup discrimination is perceived as being valued by ingroup members by default. Based on Study 1's results, we expect here that the same pattern should be observed for ingroup love (i.e., more positive reactions inferred after having discriminated vs.

after having been fair), but not for outgroup hate. As outgroup hate was perceived as counter-normative, we should even expect the reverse tendency on outgroup hate (i.e., more positive reactions inferred after having been fair vs. after having discriminated). However, and based on the rationale that there is some ambivalence in the perception of the ingroup norm regarding outgroup hate (i.e., more than for ingroup love, which is definitely perceived as being promoted by the ingroup), the strength of the effect should be weaker than the reverse tendency on ingroup love. In other words, the tendency to perceive the ingroup to promote ingroup love should be stronger than the tendency to perceive the ingroup to proscribe outgroup hate. This hypothesis is formulated as H1c.

### 6.1. Method

#### 6.1.1. Participants and design

Participants living in the US were recruited on Prolific and were compensated with 1.00 pounds sterling (i.e., the equivalent in USD). As for Study 1, we aimed at recruiting about 100 participants in each cell of the experimental design. Because we had two experimental conditions (Discrimination type: ingroup love vs. outgroup hate), we recruited a total of 210 participants (109 women, 98 men, and 3 indicated another gender;  $M_{age} = 36.50$  years,  $SD_{age} = 13.48$ ). Two of them were not American citizens. A sensitivity analysis in G\*Power indicated that the final sample size gave us an 80% probability of detecting effects with a size of  $d = 0.39$  or greater. Thus, our sample was large enough to detect small- to medium-size effects.

#### 6.1.2. Procedure

Participants performed the artistic task and were assigned to a minimal group (i.e., the Dusek group). They then allocated points to ingroup and outgroup members either in the ingroup love condition or the outgroup hate condition. Afterwards, they answered items about the inferred reaction of other ingroup members. Finally, they provided their demographics, were fully debriefed about the purpose of the study, and provided their consent for the usage of their data.

#### 6.1.3. Measure of inferred reaction of the ingroup

Participants were asked to infer how other ingroup members would react to the way they had allocated the points. We used the same measure as Iacoviello and Spears (2021). Five items assessed a positive reaction: "they would be happy", "... be satisfied", "... like me", "... welcome me", and "... praise me" ( $\alpha = 0.93$ ,  $M = 5.20$ ,  $SD = 1.26$ ). Six items assessed a negative reaction: "they would be upset", "... be disappointed", "... reject me", "... avoid me", "... exclude me", and "... try to convince me to behave otherwise in the future" ( $\alpha = 0.93$ ,  $M = 2.45$ ,  $SD = 1.23$ ). We subtracted the mean score of negative reaction from the mean score of positive reaction to create an index of inferred positive (vs. negative) reaction ( $M = 2.75$ ,  $SD = 2.35$ ). A positive score therefore indicated a relatively positive reaction, and a negative score indicated a relatively negative reaction.

Here, we only present the measures that are directly relevant for examining H1c and thus norm perceptions. For the sake of transparency, we inform readers that a measure of self-esteem was also present. Explorative analyses for this variable can be found in the Supplementary Material (SM1).

### 6.2. Results

First, we looked at participants' intergroup behavior in the ingroup love and the outgroup hate conditions. Then, we focused on norm perception by examining how participants believed their behavior (either intergroup discrimination or fairness) would be regarded by other ingroup members in both the ingroup love and the outgroup hate conditions.

### 6.2.1. Intergroup discrimination behavior

The results of a logistic regression on intergroup behavior (0 = fairness option, 1 = discrimination option) with type of intergroup discrimination (−1 = ingroup love, 1 = outgroup hate) as the predictor showed that participants were more likely to choose the discrimination option in the ingroup love condition (54.63%) than in the outgroup hate condition (8.82%), Wald  $X^2(405) = 39.92$ ,  $p < .001$ ,  $e^B = 0.28$ .

### 6.2.2. Inferred reaction of the ingroup

We ran a full-factorial ANOVA on the index of inferred reaction of the ingroup with the type of intergroup discrimination (ingroup love vs. outgroup hate) and intergroup behavior (discrimination vs. fairness) as predictors. The analysis showed a main effect of intergroup behavior,  $F(1,206) = 12.55$ ,  $p < .001$ ,  $\eta_p^2 = 0.06$ , which was qualified by the Discrimination type  $\times$  Intergroup behavior interaction,  $F(1,206) = 11.22$ ,  $p < .001$ ,  $\eta_p^2 = 0.05$ . Consistent with H1c, in the ingroup love condition, inferred ingroup reaction was more positive among participants who chose the discrimination option ( $M = 3.76$ ,  $SE = 0.27$ ) than among those who chose the fairness option ( $M = 0.87$ ,  $SE = 0.30$ ),  $F(1,206) = 50.60$ ,  $p < .001$ ,  $\eta_p^2 = 0.20$ . In the outgroup hate condition, no difference was observed ( $M = 3.14$ ,  $SE = 0.70$ , for the discrimination option and  $M = 3.06$ ,  $SE = 0.22$ , for the fairness option),  $F(1,206) = 0.01$ ,  $p = .913$ ,  $\eta_p^2 < 0.01$ . The main effect of type of discrimination was not significant,  $F(1,206) = 3.58$ ,  $p = .060$ ,  $\eta_p^2 = 0.02$ .

## 6.3. Discussion

In concert with Study 1's findings, the present study corroborated the positive-negative asymmetry. Participants were about six times more likely to choose the discrimination option in the ingroup love condition than in the outgroup hate condition. More relevant for H1c, it provided further insights into norm perceptions. In the ingroup love condition, participants who had shown a discriminatory behavior inferred their ingroup would welcome them more than those who had shown fairness. This suggests that the ingroup is perceived as promoting ingroup love. However, the reverse tendency on outgroup hate (i.e., the tendency to perceive the ingroup as proscribing outgroup hate) that we observed in Study 1 was not observed. Inferred reaction of the ingroup did not differ according to participants' behavior. This indicates a certain ambivalence, neutrality, or perhaps uncertainty about what the ingroup might think about outgroup hate.

Together, results from Studies 1 and 2 indicate that participants perceive that the ingroup is definitely perceived as promoting ingroup love, while the picture is less clear for outgroup hate. While some may believe that outgroup hate is generally proscribed, others may perceive that the ingroup values outgroup hate to some extent. In the next studies, we will test whether and how these norm perceptions translate to behavior. Specifically, Study 3 will examine whether both ingroup love and outgroup hate increase when the ingroup (vs. an external body) is rendered cognitively salient. Moreover, we will try to replicate Study 2's findings on perception of the ingroup norm regarding ingroup love and outgroup hate.

## 7. Study 3

Study 3 first tested the impact of imagined audience on both ingroup love and outgroup hate. Imagining the presence of a given social body should indeed make salient the normative expectations this body is believed to hold. As a result, participants are predicted to align their behavior with this salient norm. Research has indeed shown that imagining the presence of the ingroup (vs. an external body) increases intergroup discrimination in minimal groups (Iacoviello & Spears, 2021). According to Study 1's findings - which showed a discrepancy between what is perceived to be normative for ingroup members and for an external body (i.e., social scientists) regarding both ingroup love and outgroup hate - we predicted that when participants are led to imagine

the presence of other ingroup members (vs. an external body), they would show increased ingroup love and outgroup hate behaviors (H2). Moreover, this study will further examine norm perceptions and provide a test for H1c. Indeed, and in order to replicate the effect observed in Study 2, we will measure the inferred reaction of the ingroup after participants allocated the points. Finally, as a further test of H1, we will ask direct questions about what they believed the ingroup norm and the external norm were.

## 7.1. Method

### 7.1.1. Participants and design

Participants were recruited on Amazon's Mechanical Turk and were compensated with 0.45 USD. As a similar experiment examining the impact of imagined audience on intergroup discrimination existed, we based sample size estimations for the present study on these results. We therefore performed a power analysis using G\*Power. The expected effect size was based on the higher-order interaction between imagined audience and political orientation reported in Iacoviello and Spears (2021, Study 1), which was  $\eta_p^2 = .034$ . Power was fixed at 0.80 and the total groups were 4. The analysis suggested a total sample size of approximately 300 participants. Our final sample consisted of 307 participants living in the US (145 women and 162 men;  $M_{age} = 38.85$  years,  $SD_{age} = 11.98$ ). A majority of them (98.0%) were American citizens. They were randomly assigned to one cell of the 2 (Imagined audience: ingroup vs. external entity)  $\times$  2 (Type of intergroup discrimination: ingroup love vs. outgroup hate) between-participants design. To complement the power analysis, we performed a sensitivity analysis, which indicated that this sample size gave us an 80% probability of detecting effects with a size of  $d = 0.38$  or greater. Thus, our sample was large enough to detect small- to medium-size effects.

### 7.1.2. Procedure and manipulation of imagined audience

Participants were assigned to a minimal group and were asked to divide points between ingroup and outgroup members participating in the study. Before doing the task, they were asked to imagine that a certain audience is looking at the way they are distributing points, and to consider what this audience would think of them. In the ingroup condition, the imagined audience were "other members of the ingroup", while in the external body condition, the imagined audience were "social scientists working on intergroup relations". They then performed the point-allocation task, either framed as ingroup love or outgroup hate. Afterwards, they answered the inferred reaction items and additional items assessing norm perceptions in a more direct way. Finally, they provided their demographics, were fully debriefed about the purpose of the study, and provided their consent for the usage of their data.

### 7.1.3. Inferred reaction of the ingroup

Inferred reaction of the ingroup ( $M = 2.44$ ,  $SD = 2.35$ ) was assessed in the same way as in Study 2.

### 7.1.4. Norm perception

Each participant (independent of the experimental condition) first answered a single item on the perceived *descriptive* norm of the ingroup: "To what extent do you think that the other members of the Dusek group have favored their ingroup members over Tausig members in the allocation of points?" ( $M = 5.02$ ,  $SE = 0.08$ ). They then answered two items measuring both perceptions of the *injunctive* norm of the ingroup and of the external body. The ingroup injunctive norm was assessed with the item: "To what extent do you believe that most of the other members of the Dusek group think it is OK to favor their ingroup members over members of the group Tausig?" ( $M = 4.94$ ,  $SE = 0.09$ ). The external entity's injunctive norm was assessed with the item: "To what extent do you believe that social scientists think it is OK for people to favor their ingroup members over members of the other group?" ( $M = 4.72$ ,  $SE = 0.09$ ). They answered on 7-points scales ranging from 1 ("Not at all") to

7 (“Completely”). Perceived descriptive norm was positively and significantly correlated with both perceptions of the injunctive ingroup norm,  $r(306) = 0.67, p < .001$ , and the injunctive external norm,  $r(306) = 0.46, p < .001$ . Perceptions of injunctive ingroup and external norms also correlated positively and significantly,  $r(306) = 0.52, p < .001$ .

As for Study 2, we present here the measures that were directly relevant for testing H1 and H2. Additional measures (i.e., need to belong, groupiness and personal self-esteem) and explorative analyses for these can be found in the Supplementary Material (SM2).

## 7.2. Results

Below, results are displayed in the same order in which relevant measures appeared in the questionnaire. Therefore, we first present the analysis concerning discriminatory behavior (H2), and then the analyses testing norm perceptions (H1).

### 7.2.1. Intergroup discrimination

We performed a logistic regression analysis on intergroup behavior (0 = fairness option, 1 = discrimination option) with imagined audience (−1 = ingroup, 1 = external entity), type of intergroup discrimination (−1 = ingroup love, 1 = outgroup hate), and their interaction as predictors. The analysis first showed a main effect of the discrimination behavior,  $B = -0.85, \chi^2(1, N = 307) = 37.99, p < .001, e^B = 0.43$ . The likelihood of choosing the discrimination option (vs. the fairness option) was higher in the ingroup love condition than in the outgroup hate condition (respectively, 53.32% and 17.35%). Consistent with H2, the main effect of imagined audience was also significant,  $B = -0.29, \chi^2(1, N = 307) = 4.42, p = .036, e^B = 0.75$ . The likelihood of choosing the discrimination option (vs. the fairness option) was higher in the ingroup condition than in the external body condition (respectively, 39.53% and 26.84%). However, the Imagined audience  $\times$  Type of intergroup discrimination interaction was not significant,  $B = 0.01, \chi^2(1, N = 307) = 0.01, p = .923, e^B = 1.01$  (see Fig. 3), suggesting that the effect of imagined audience was about as strong for ingroup love as it was for outgroup hate.

### 7.2.2. Inferred reaction of the ingroup

We performed a linear regression analysis on inferred reaction of the ingroup with imagined audience (−1 = ingroup, 1 = external entity), type of intergroup discrimination (−1 = ingroup love, 1 = outgroup hate), intergroup behavior (−1 = fairness, 1 = discrimination), and their interactions as predictors. The analysis first revealed a main effect of intergroup behavior,  $B = 0.38, t(299) = 2.43, p = .016, 95\% \text{ CI } [0.07,$

$0.69], \eta_p^2 = 0.02$ , which was qualified by the Discrimination type  $\times$  Intergroup behavior interaction,  $B = -0.46, t(299) = -2.92, p = .004, 95\% \text{ CI } [-0.77, -0.15], \eta_p^2 = 0.03$ . As in Study 2 and in line with H1c, inferred reaction in the ingroup love condition was more positive when participants chose the discriminatory option ( $M = 2.99, SE = 0.24$ ) than when they chose the fairness option ( $M = 1.68, SE = 0.36$ ),  $B = 0.84, t(299) = 4.69, p < .001, 95\% \text{ CI } [0.49, 1.19], \eta_p^2 = 0.07$ . However, no difference was observed in the outgroup hate condition ( $M_s = 2.57$  and  $2.72, SEs = 0.47$  and  $0.22$ , respectively),  $B = -0.08, t(299) = -0.30, p = .767, 95\% \text{ CI } [-0.58, 0.43], \eta_p^2 < 0.01$ . All other effects were non-significant (see SM3 in the Supplementary Material).

### 7.2.3. Norm perception

We first ran a full-factorial MANOVA on the ingroup descriptive norm and on both injunctive norms with imagined audience and type of intergroup discrimination as the independent variables. The analysis revealed a main effect of discrimination type on the ingroup descriptive norm,  $F(1,302) = 13.85, p < .001, \eta_p^2 = 0.04$ . Participants perceived other ingroup members to be more likely to favor the ingroup over the outgroup in the ingroup love condition ( $M = 5.31, SE = 0.11$ ) than in the outgroup hate condition ( $M = 4.73, SE = 0.12$ ). This main effect was neither significant on the ingroup injunctive norm,  $F(1,302) = 2.67, p = .103, \eta_p^2 = 0.01$ , nor on the external injunctive norm,  $F(1,302) = 1.49, p = .223, \eta_p^2 = 0.01$ . All other effects were non-significant (see SM4 in the Supplementary Material). This suggests that, although participants perceive that other ingroup members are more likely to show ingroup love than outgroup hate, they do not perceive the normative expectations (from both normative sources) to differ between ingroup love and outgroup hate.

In order to look at discrepancies between perceptions of the ingroup injunctive norm and the external injunctive norm, we then performed a full-factorial repeated measure ANOVA on the injunctive norm items, with the source of the norm (ingroup vs. external body) as a within-participants factor, and imagined audience and type of intergroup discrimination as between-participants factors. The analysis only showed a main effect of the repeated measure,  $F(1,303) = 5.67, p = .018, \eta_p^2 = 0.02$ , such that participants perceived the ingroup to promote intergroup discrimination more than the external body ( $M_s = 4.94$  and  $4.72, SEs = 0.09$  and  $0.09$ , respectively). All other effects were non-significant (see SM5 in the Supplementary Material). These results were overall consistent with H1, as they showed a discrepancy between perceptions of the ingroup and the external norm on both ingroup love and outgroup hate.

## 7.3. Discussion

The findings provided further insights on norm perceptions. First, they replicated Study 2's results on the inferred norm of the ingroup. Consistent with H1c, choosing the ingroup love option was perceived as inducing more positive reactions from the ingroup than the fairness option. However, the reverse pattern for outgroup hate (i.e., choosing the outgroup hate option is perceived as inducing more negative reactions from the ingroup than the fairness option) was not observed, suggesting that outgroup hate is not clearly perceived as being proscribed by the ingroup. Second, results on the direct assessment of norm perceptions showed that the injunctive ingroup norm was perceived as being more pro-discriminatory than the external norm, regardless of the type of intergroup discrimination (i.e., ingroup love or outgroup hate). This is in line with H1 and Study 1's findings that revealed a discrepancy between perceptions of the ingroup and the external norm on both ingroup love and outgroup hate (although the size of the effects was different in Study 1, but not here).

Moreover, the present findings supported H2, as they showed that the impact of imagined audience on intergroup discrimination was as evident when it was framed as ingroup love as when it was framed as outgroup hate. Although the tendency towards outgroup hate was

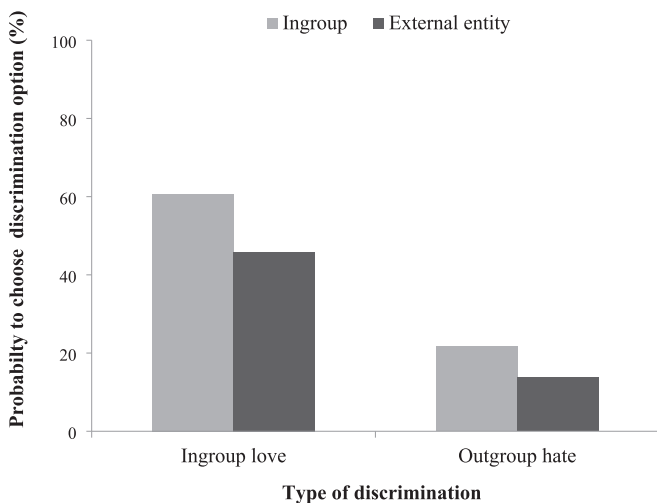


Fig. 3. Probability to choose the discrimination option according to the imagined audience and the type of intergroup discrimination (Study 3).



generally quite weak, it was still subject to normative dynamics, as it increased when the ingroup norm was rendered salient by imagining the presence of other ingroup members.

## 8. Study 4

This final study tested H3, according to which both ingroup love and outgroup hate are relevant behaviors that ingroup members can display to conform to an ingroup norm explicitly promoting intergroup discrimination in general (i.e., favoring ingroup members over outgroup members).

### 8.1. Method

#### 8.1.1. Participants and design

Participants living in the US were recruited on Prolific and were compensated with 0.75 pounds sterling (i.e., the equivalent in USD). We aimed at recruiting about 100 participants in each cell of the 2 (Type of discrimination: ingroup love vs. outgroup hate)  $\times$  2 (Ingroup norm: pro-discrimination vs. anti-discrimination) design. We recruited a total of 410 participants (199 women, 202 men, 8 indicated another gender, and 1 preferred not to say;  $M_{age} = 38.59$  years,  $SD_{age} = 13.43$ ). Two of them were not American citizens. A sensitivity analysis in G\*Power indicated that the final sample size gave us an 80% probability of detecting effects with a size of  $d = 0.28$  or greater. Thus, our sample was large enough to detect small-size effects.

#### 8.1.2. Procedure

Participants were assigned to a minimal group, allegedly based on their artistic preferences. They were then told that they would perform a point-allocation task on the following page and were informed about the injunctive norm of the ingroup. After participants had allocated points between ingroup and outgroup members – either in the ingroup love condition or the outgroup hate condition – they provided their demographics, were fully debriefed, and provided their consent for the usage of their data.

#### 8.1.3. Manipulation of the ingroup norm

The same procedure as in Iacoviello and Spears (2021; Study 3) was used to manipulate the injunctive norm of the ingroup. In the pro-discrimination condition [or anti-discrimination condition], they read that “surveys have consistently shown that the members of the Dusek group think that their ingroup members should [vs. should not] favor the Dusek group over the Tausig group (that they should allocate most of the points to the Dusek group [vs. that they should allocate about 50 % of the points to each group]).

### 8.2. Results

We performed a logistic regression analysis on intergroup behavior (0 = fairness, 1 = discrimination) with ingroup norm ( $-1$  = pro-discrimination,  $1$  = anti-discrimination), type of intergroup discrimination ( $-1$  = ingroup love,  $1$  = outgroup hate) and their interaction as predictors. The analysis first showed a main effect of the type of intergroup discrimination,  $B = -1.07$ ,  $\chi^2(1, N = 410) = 57.06$ ,  $p < .001$ ,  $e^B = 0.34$ . The likelihood of choosing the intergroup discrimination option (vs. the fairness option) was higher in the ingroup love condition than in the outgroup hate condition (respectively, 48.50% and 9.98%). The main effect of ingroup norm was also significant,  $B = -0.44$ ,  $\chi^2(1, N = 410) = 9.41$ ,  $p = .002$ ,  $e^B = 0.65$ . As illustrated in Fig. 4, the likelihood of choosing the discrimination option (vs. the fairness option) was higher in the pro-discrimination norm condition than in the anti-discrimination norm condition (respectively, 33.40% and 17.22%). The Ingroup norm  $\times$  Discrimination type interaction was, however, not significant,  $B = -0.07$ ,  $\chi^2(1, N = 410) = 0.22$ ,  $p = .638$ ,  $e^B = 1.07$ , suggesting that norm conformity was about as strong in the ingroup love condition as in the

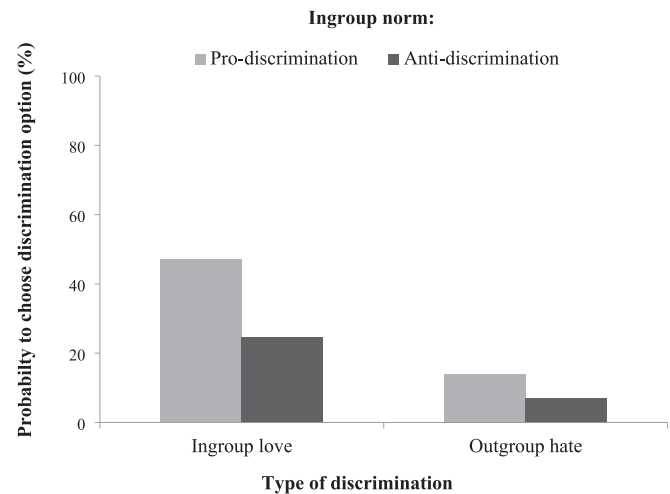


Fig. 4. Probability to choose the discrimination option according to the ingroup norm and the type of intergroup discrimination (Study 4).

outgroup hate condition.

### 8.3. Discussion

Consistent with past research (e.g., Iacoviello & Spears, 2021; Jetten et al., 1996) and in line with H3, the present study showed that participants tended to conform to the ingroup norm in the minimal group paradigm. They were indeed more likely to show intergroup discrimination when the ingroup norm was pro-discriminatory (vs. anti-discriminatory). This tendency was, however, not dependent on the type of intergroup discrimination. Participants were indeed about twice as likely to discriminate when the ingroup norm promoted intergroup discrimination than when it promoted fairness in the ingroup love condition, but also twice as likely to discriminate in the outgroup hate condition. This indicates that both ingroup love and outgroup hate are considered as relevant behaviors when it comes to conforming to the ingroup expectations regarding intergroup discrimination in general.

## 9. General discussion

In line with the normative perspective of intergroup discrimination, the present research showed that, despite outgroup hate being generally displayed less than ingroup love, normative dynamics still applied to both types of discriminatory behaviors. In line with H1, while participants clearly perceived ingroup love to be promoted by the ingroup (but not an external body), their perception of the ingroup norm regarding outgroup hate was less clear-cut (see Studies 1–3). In some instances, outgroup hate was perceived as being proscribed by the ingroup, but still less than by an external body (Study 1). In some other instances, outgroup hate was not perceived as being proscribed at all by the ingroup (Studies 2 and 3). This ambiguity about outgroup hate could be due to participants being generally ambivalent about outgroup hate as the influence of more general societal norms against it could be influencing their judgments. Another explanation could be that participants' perceptions are quite heterogeneous, such that some participants would be certain that the ingroup norm proscribes outgroup hate, while others are certain that it promotes outgroup hate (thus indicating a low consensus about the perceived norm). In both cases, this leads outgroup hate to be subject to normative dynamics, as it is used to conform to the ingroup norm. Indeed, outgroup hate, as much as ingroup love, increased when the ingroup norm was made salient by the imagined presence of other ingroup members (H2; Study 3) and when the ingroup norm explicitly encouraged intergroup discrimination (H3; Study 4).

### 9.1. Theoretical implications

Results from the MGP have somewhat revolutionized research in the field of intergroup relations, originating in social identity theory (Tajfel & Turner, 1979), one of the most influential models of intergroup relations (see Brown, 2020; Reicher, Spears, & Haslam, 2010; Rubin & Hewstone, 2004). The literature also acknowledges the usefulness of this paradigm in a variety of domains (Otten, 2016). However, research on the positive-negative asymmetry has challenged the extent to which we could generalize MGP's findings on real instances of intergroup discrimination (Brewer, 2017; Mummendey & Otten, 1998). In accordance with this reasoning, mere categorization would not be sufficient to instigate outgroup hate. Additional factors would be necessary. As contended by Mummendey and Otten (1998, pp. 115-116), "... conditions which are known to have an intensifying effect on ingroup bias in the positive area are necessary in the negative area in order to elicit ingroup bias. Such variables are, for example, the salience of categorization, inferior ingroup status and minority ingroup position". It is therefore implied that what we observe in the MGP only stems from participants' tendency towards ingroup love, but not (or marginally) from their tendency towards outgroup hate. However, past research has shown that mere categorization is actually sufficient to elicit both ingroup love and outgroup hate (Amiot & Bourhis, 2003; Buhl, 1999). The present findings further suggest that both these behaviors can vary as a function of the normative features of the situation. In sum, we contend that the minimal group paradigm is informative about basic processes of both ingroup love and outgroup hate that are relevant to understand real-life phenomena even though these behaviors can be emphasized by additional factors, such as realistic or symbolic threat (Stephan & Stephan, 2000).

The present set of studies provides additional support for the NPID (Iacoviello & Spears, 2018, 2021). In a minimal group setting, intergroup discrimination stems – at least to some extent – from participants' motive to conform to the ingroup norm, which is perceived as promoting intergroup discrimination by default. If this happens in such a minimal situation, there is no reason that the same process would not apply to real-life instances of intergroup discrimination. This echoes thoughts of some of the most influential social psychology figures of the last century (i.e., Allport, 1954; Sherif & Sherif, 1953) and the literature on the development of prejudice (Rodrigues, Rutland, & Collins, 2016). In accordance with this, outgroup prejudice is mainly transmitted by ingroup members (e.g., families and peers) and is internalized by children in the early stages of their life. Later on, they also learn to behave according to anti-discrimination norms that are widespread in society (Monteiro, de França, & Rodrigues, 2009). Such anti-discrimination norms seem to specifically reduce blatant expressions of outgroup hate. Rutland et al. (2007) indeed showed that, while ingroup love persists among school-age children (i.e., 7–12 years old) as they grow older, outgroup hate tends to fade away (thus creating the positive-negative asymmetry). Although the NPID does not exclude additional explanations of intergroup discrimination (see Spears & Otten, 2017), we believe it is important to (re)focus on social norms, instead of intra-individual explanations (e.g., De Dreu, Dussel, & Velden, 2015; Dunham, 2018; Yudkin, Rothmund, Twardawski, Thalla, & Van Bavel, 2016), as a motor of intergroup discrimination (and not as a mere moderating factor; see Iacoviello & Spears, 2021, for a discussion). The NPID is also based on a fundamental need (the need to belong to social groups; Baumeister & Leary, 1995). This need is, however, not deemed to directly impact on people's tendency to discriminate, but indirectly through social norms. Therefore, it could be argued that instances of intergroup discrimination would be drastically reduced as a result of equalitarian norms being more influential and holding more weight than they do today. This goes above and beyond perspectives that describe intergroup discrimination as being intrinsic to human nature.

The NPID is, to some extent, compatible with one of the most popular explanation of intergroup discrimination in the minimal group

paradigm, that is, bounded generalized reciprocity. Research conducted in this framework has mainly focused on intergroup discrimination on cooperative tasks (i.e., people are more likely to cooperate with ingroup than outgroup members; see Balliet, Wu, & De Dreu, 2014). The theory's initial formulation relied on *direct* reciprocity and proposed that individuals tend to favor members of their ingroup due to the anticipation of receiving similar treatment in return (Yamagishi & Kiyonari, 2000). However, reciprocity-based explanations have evolved to focus on *indirect* reciprocity. According to this perspective, individuals exhibit ingroup favoritism to establish a positive reputation within their group (Wu, Balliet, & Van Lange, 2016). The motive to gain a positive reputation is congruent with the NPID's motive to be a good group member by sticking to the ingroup norm. For instance, recent studies have shown that ingroup favoritism increases when a pictorial image of watching eyes was presented to participants (Mifune, Hashimoto, & Yamagishi, 2010). The authors' interpretation was that participants perceived the eyes as an ingroup monitoring cue and therefore favored ingroup members in order to achieve a positive reputation. Looking at these results through the NPID lens, we could reason that the eyes picture made salient the ingroup injunctive norm which is perceived to promote intergroup discrimination. To sum up, predictions stemming from the NPID would be quite compatible with those related to indirect reciprocity, but less so with those related to direct reciprocity.

### 9.2. Limitations and further research

The present set of studies suggests that the perceived ingroup norm plays a crucial role in the emergence of both ingroup love and outgroup hate. We may wonder whether these two facets of intergroup discrimination are reliant to contextual cues, such as private vs. public situations. As the NPID posits that intergroup discrimination stems from people's willingness to be a good group member, one may expect this tendency to be increased when people's behaviors are visible to ingroup members. However, we believe that people are not merely motivated in *appearing* as good group member, but they also care about *building a positive self-image* based on the salient normative expectations (for a discussion, see Iacoviello & Spears, 2021). As they are intrinsically motivated in following the ingroup norm, their behavior should not depend on the surveillance of the ingroup. In line with this assumption, Everett and collaborators (2015) found that ingroup favoritism was as conspicuous in public as in private settings. We encourage future research to look into this issue as it has the potential to provide further insights about why people discriminate in the minimal group paradigm.

Moreover, as the basic premise of the NPID is that members of minimal groups discriminate because they want to be good group members, one may argue that this perspective specifically applies to instances of intergroup discrimination where behaviors are deliberate and conscious, but less so for implicit measures (e.g., Otten & Wentura, 1999). At the same time, studies have found that normative cues affect implicit measure of intergroup attitudes (Castelli & Tomelleri, 2008). Such consideration therefore deserves more attention in the future, as would contribute in delineating the boundaries of the NPID.

Several explanations have been suggested to account for the positive-negative asymmetry, such as normative and cognitive ones. These explanations are not necessarily mutually exclusive. For instance, participants may focus more thoroughly on outgroup hate than on ingroup love, because they know that the former behavior is more likely to elicit backlash (see Mummendey & Otten, 1998). The present research supports the normative explanation, as it showed that outgroup hate was generally perceived as less normative than ingroup love (although this was also contingent on the source of the norm). However, part of this discrepancy may be explained by the nature of our manipulation of ingroup love and outgroup hate. The former, could indeed be preferred because of participants' motivation to (also) maximize the general interests (i.e., giving the maximum number of points in general). While we encourage future studies to use a variety of manipulations or measures

of ingroup love and outgroup hate, this cannot be the whole story. Choosing the ingroup love option indeed increased when the ingroup norm was made salient through imagined audience (Study 3) and when the ingroup norm was described as pro-discriminatory (Study 4). This implies that ingroup love is recognized, at least to some extent, as a way to discriminate (and not merely to distribute the greatest number of points in general). So, how can we explain that two behaviors resulting in the same differential treatment between two groups of people can be defined by so contrasting social expectations? Why would not giving food to someone who is starving be perceived as more legitimate than withdrawing food from a satiated stomach? Such considerations echo wider phenomena, as the one highlighted in prospect theory where losses are perceived as much more impactful as the equivalent gains (i. e., loss aversion; Kahneman & Tversky, 1979). To our knowledge, the process underlying the positive-negative asymmetry is still unclear and should therefore receive further explorations.

## 10. Conclusion

The ongoing war in Ukraine highlights many instances of intergroup discrimination. One of these is the war crimes committed on Ukrainian civilians (which are still under investigation while we are writing this paper; Bowen, 2022). Another one is the differential treatment that host countries have towards Ukrainian refugees as compared to refugees from other countries (Zaru, 2022). While these behaviors might seem very different in nature - the former rather reflecting outgroup hate and the latter a form of ingroup love - we believe that similar psychological processes can be at play on both phenomena. The present research indeed suggests that the process observed in minimal groups can generalize to a wide array of instances of real-world discrimination where both types of intergroup discrimination exist.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Data availability

Data can be found on the Open Science Framework platform ([https://osf.io/pvgkz/?view\\_only=bed1aa75121347c6b54be40412995321](https://osf.io/pvgkz/?view_only=bed1aa75121347c6b54be40412995321)).

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jesp.2023.104514>.

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