

The Content, Valence, and Outcomes of Ethnic Minority Group Members' Interminority Meta-
Stereotypes

by

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Abstract

As ethnic diversity grows in nations around the world, so does the importance of understanding relations between ethnic minority groups (interminority relations) and factors that may promote contact and cooperation between them. Further, little is known about the role of group status in interminority relations. Thus, across four studies, I examined the content, overall valence, accuracy, and specificity of the meta-stereotypes higher (Asian Americans) and lower (Black Americans) status ethnic minority groups hold regarding how their group is viewed by the other group (interminority meta-stereotypes). Further, I examined the relationship between groups' overall interminority meta-evaluations and their interest in contact and solidarity with members of the other group to address issues of mutual concern. In each study, I recruited Black and Asian Americans from Amazon Mechanical Turk, who completed an online survey. I found that, as a higher status group, Asian Americans' interminority meta-stereotypes focused on perceptions that they are viewed as competent but unsociable and somewhat prejudiced. In contrast, as a lower status group, Black Americans' interminority meta-stereotypes focused on perceptions that they are viewed as low in competence and morality. Although Black Americans' meta-stereotypes and meta-evaluations were negatively exaggerated, Asian Americans did not show such clear bias. In Study 1, the valence of groups' interminority meta-stereotypes and meta-evaluations also differed from how they felt White Americans viewed them. In Study 2, the valence of groups' meta-evaluations positively predicted their interest in contact and solidarity through its influence on their attitudes toward the outgroup. Moreover, both groups underestimated the other group's interest in contact and solidarity. In Study 3, Black Americans were less willing to discuss interminority solidarity with a minority outgroup interaction partner relative to an ingroup member. However, no such effect was apparent for Asian Americans and the effect for Black Americans was not explained by individual-level meta-evaluations, which did not differ according to their partner's ethnicity. The results suggest that higher and lower status ethnic minority groups have unique meta-evaluative concerns, which influence their interest in contact and solidarity with other ethnic minority groups and highlight the importance of understanding such concerns grounded in specific relationships.

Keywords: meta-stereotype, intergroup contact, intergroup solidarity, meta-evaluation

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Introduction

As the ethnic diversity of many nations continues to grow, it is becoming increasingly important to understand relations between ethnic minority groups (“interminority relations”) and how these relations impact efforts for social change. Increasing representation of ethnic minorities suggests a potentially stronger voice for ethnic minorities in seeking social change within the political sphere. By virtue of a growing population, minority perspectives and voices could become more important in the political arena as members of ethnic minority groups make up a greater proportion of the voting bloc. However, in order to capitalize on the benefits of increased diversity, it is important that ethnic minority groups actually come into contact with one another and ideally work together to address issues such as discrimination and inequality in which they share a common interest.

Positive contact is a strong predictor of improved attitudes towards outgroup members (see Pettigrew & Tropp, 2006, for a meta-analysis) and this relationship appears to hold for relations between ethnic minority groups (Hindriks et al., 2014). However, contact alone may not be enough to promote the kind of structural change that addresses the systemic inequalities many ethnic minority groups face (Saguy et al., 2009). Instead, many researchers and theorists suggest that such change requires groups to work together (i.e., political solidarity; Subašić et al., 2008) and engage in collective action (Dixon et al., 2012)—in other words, that what is needed is contact focused on social change. As such, it is important to understand the factors that may promote versus inhibit positive interminority contact and efforts to work together for change (i.e., referred to as interminority solidarity). A coalition of ethnic minority groups standing together in political solidarity and engaging in collective action has the potential to be a strong force for social change.

Despite increasing diversity and the importance of interminority relations to social change, research has largely overlooked relations between ethnic minority groups, instead focusing on relations between majority and minority groups such as White and Black Americans. One reason for the lack of research into relations between ethnic minority groups may be an assumption such groups perceive a shared identity as a disadvantaged minority. Recently however, researchers have begun to point out that it is misguided to assume that different minority groups feel an innate sense of common identity or have positive attitudes towards each other (Craig & Richeson, 2012; Glasford & Calcagno, 2012; Hindriks et al., 2016). Indeed, Craig

and Richeson (2012) found that members of ethnic minority groups showed more positive implicit attitudes towards White Americans than members of other ethnic minority groups. Research has also found that when advertisements focus on members of ethnic minority groups, members of ethnic minority groups not represented may feel excluded and thus less favourable towards the advertisement, especially if they are highly identified with their ethnic group or high in social dominance orientation (El Hazzouri et al., 2017). Results such as these undermine the idea of an inherent united disadvantaged minority identity in solidarity against the majority. Moreover, like majority-minority relations, interminority relations are defined by group boundaries and status differences, and may be fraught with histories and current perceptions of competition, conflict, rejection, and inequality (e.g., Barlow et al., 2010; Gay, 2006; Hindriks et al., 2016; Okami, 1992; Visintin et al., 2017). When members of ethnic minority groups have negative contact experiences with ethnic minority outgroup members (Visintin et al., 2017), perceive the outgroups as a source of competition (Gay, 2006; Hindriks et al., 2016) or feel rejected by the other group (Barlow et al., 2010), this strains relations between groups and likely inhibits feelings of solidarity. To this end, researchers have begun to examine relations between members of different ethnic minority groups, often with a focus on studying factors such as intergroup contact and salient discrimination that may improve interminority attitudes (Bikmen, 2011; Craig & Richeson, 2012; Visintin et al., 2016; Visintin et al., 2017). Although some researchers have referred to relations between ethnic minority groups as “intraminority” (e.g., Craig & Richeson, 2012; Starzyk et al., 2019), in the present research I use the term “interminority” because I believe it more clearly reflects the nature of relations between (i.e., inter) ethnic minority groups and their distinct ethnic identities that is the focus of the present research.

I would argue that it is also important to understand the metaperceptual processes at play in interminority contexts. In particular, it seems likely that ethnic minority group members’ beliefs about how their group is viewed by members of another ethnic minority group (referred to as interminority meta-stereotypes) are highly influential to minority group members’ willingness to approach each other and make initiatives toward working together. Metaperceptual processes are important to majority-minority relations (e.g., Frey & Tropp, 2006; Vorauer, 2006) and thus are likely critical to interminority relations as well. Yet, few studies have examined the metaperceptual factors that may impede interminority contact, relations, and

solidarity on an everyday basis. Further, status differences between ethnic minority groups are likely to guide interminority meta-stereotypes as they do in majority-minority relations (Shelton et al., 2006), yet little is known about the role of status in interminority relations. The present research intends to fill these gaps.

Overview

The aim of the present research was to examine the content, overall valence, and accuracy of the meta-stereotypes higher and lower status ethnic minority groups hold in regard to each other and how these factors affect outcomes of possible importance for interminority relations at large and more specifically interminority cooperation and solidarity in working towards shared goals. Specifically, I examined how ethnic minority group members' interminority meta-stereotypes affect their interest in interminority contact, interest in working together to address issues of discrimination and inequality they both face (i.e., solidarity), and their decision to embrace or avoid an opportunity to discuss solidarity with an ethnic minority outgroup member. Parallel to considerations of interminority meta-stereotype accuracy, I also examined the accuracy of ethnic minority group members' perceptions of ethnic minority outgroup members' interest in contact and solidarity. Finally, across the present series of studies I also examined how relative status differences between ethnic minority groups affects the content, valence, and outcomes of interminority meta-stereotypes.

Meta-Stereotypes and Intergroup Relations

How people feel their group is viewed by other groups has important implications for intergroup relations. For example, research to date on meta-stereotypes suggests that in relations between majority and minority groups, groups generally feel they are viewed negatively by the outgroup and more negatively than they are actually viewed (Frey & Tropp, 2006; Krueger, 1996; Vorauer et al., 1998). These meta-stereotypes can influence how people feel they themselves are viewed by outgroup members during intergroup interactions (Vorauer et al., 1998), and when such meta-perceptions are negative they can lead to greater intergroup anxiety and reduced interest in future contact (Méndez et al., 2007). Indeed, some research even suggests that meta-stereotypes are a stronger predictor of intergroup anxiety than are actual prejudiced attitudes (Finchilescu, 2010). Further, negative meta-stereotypes may not just be an impediment to intergroup contact but may also reduce the benefits of such contact when it occurs. Research

suggests that negative expectations about upcoming intergroup interactions can undermine the prejudice-reducing effects of positive contact (Deegan et al., 2015; Vorauer, 2008).

However, this past work has generally focused on meta-stereotypes and expectations held by minority and majority groups in regard to each other. Little is known about the content or valence of meta-stereotypes that ethnic minority group members hold regarding how other minority groups view them. It seems unlikely, however, that such meta-stereotypes do not exist or that they are uniformly positive. As such, it is important to understand interminority meta-stereotypes because the content and valence of these meta-stereotypes should help illuminate the negative expectations minority group members may have that could impede their willingness to engage in interminority contact and solidarity and undermine the positive benefits of such contact. By understanding these meta-stereotypes and how they may diverge from the perceptions actually held by members of ethnic minority outgroups (i.e., be inaccurate), researchers may be able to devise strategies to address unwarranted negative expectations and promote communication, contact, and cooperation. Of course, if interminority meta-stereotypes are positive that would also be important to know as this would indicate that different strategies are needed to enhance interminority solidarity than would be suggested by work on minority-majority relations.

Interminority Meta-Stereotype Content and Status

As Craig and Richeson (2012) suggest, it may be misguided to assume that members of different ethnic minority groups inherently perceive a sense of common identity as disadvantaged minorities. Such an assumption overlooks the diverse ways in which victims may respond to their disadvantage. Indeed, although members of victimized groups can respond to their disadvantage with inclusive views of collective victimhood, which recognize and support other groups as victims (Starzyk et al., 2019; Vollhardt, 2015; Vollhardt et al., 2016), they can also hold exclusive views of group victimization that primarily recognize their ingroup's unique suffering while failing to recognize the suffering of other groups (Vollhardt, 2015; Vollhardt et al., 2016). Moreover, minority groups differ greatly in their relative status and power, factors considered important in predicting the content of stereotypes (Fiske et al., 2002) and meta-stereotypes (Shelton et al., 2006) as well as for intergroup relations more generally (Tajfel & Turner, 1979). As such, I argue that it is unlikely that ethnic minority groups hold positive and uniform interminority meta-stereotypes. Instead, members of minority groups are likely to

believe they are negatively stereotyped by members of other ethnic minority groups and the content of such meta-stereotypes may depend on relative status differences between the groups. The question then becomes: What is the content of interminority meta-stereotypes and how is it dictated by relative status?

For members of relatively lower status ethnic minority groups, it seems most likely that meta-stereotypes regarding how their group is viewed by higher status ethnic minority groups are consistent with how they feel their group is viewed by members of the majority group, albeit perhaps attenuated in extremity. Lower status ethnic minority group members' meta-stereotypes regarding how majority groups view them often center on perceptions that their group is viewed as less competent (Finchilescu, 2010; Sigelman & Tuch, 1997), perceptions that are consistent with the content of broader stereotypes about the group (Fiske et al., 2002; Zou & Cheryan, 2017). In fact, because perceived status and stereotypes about a group's competence are highly correlated (Fiske et al., 2002), lower status ethnic minority groups may expect that all higher status groups view their group as less competent. This would fit with research by Kenny and DePaulo (1993), who found that people tend to assume they are viewed similarly by different people in interpersonal contexts. This view may be particularly easy to maintain when the status hierarchy between groups is similar. As such, lower status ethnic minority group members' meta-stereotypes of how they are viewed by higher status ethnic minority groups may also largely focus on negative perceptions of their group's competence.

In contrast, because people see status and competence as highly related (Fiske et al., 2002), it seems unlikely that members of higher status ethnic minority groups would feel their group is viewed as less competent by lower status ethnic minority groups. Instead, higher status ethnic minority group members may hold meta-stereotypes regarding how they are viewed by lower status ethnic minority groups that are unrelated to competence. However, the exact content of these meta-stereotypes is less clear. Indeed, there are competing possibilities.

On the one hand, higher status ethnic minority group members' meta-stereotypes regarding how they are viewed by lower status minority groups may follow from status distinctions and resemble those held by majority group members. Majority groups' meta-stereotypes regarding how they are viewed by minority groups tend to center on perceptions that their group is viewed as prejudiced and immoral (Bergsieker et al., 2010; Frantz et al., 2004; Vorauer et al., 1998). By virtue of being higher status in a system that may be viewed as unjust,

higher status ethnic minority group members may be concerned their group will be seen as similar to the high-status majority or as having gained an unfair advantage and thus as complicit in the prejudice and discrimination faced by the lower status minority group. Indeed, they may expect especially harsh judgment from lower status ethnic minority groups who they believe perceive them as prejudiced, expecting that the outgroup thinks they ought to show solidarity and support by virtue of their minority status. If this is the case, higher status minority groups may worry they will be seen as immoral and prejudiced against lower status ethnic minority groups and thus their meta-stereotypes may resemble those of majority group members. Some weak evidence for this account is seen in research by Finchilescu (2010, p. 340) who found that Coloured South African's negative meta-stereotypes of Black South Africans included traits like "cruel" and "rude". However, the status differences between Coloured and Black South Africans are somewhat unclear. Regardless, if this is the case, higher status minority group members' meta-stereotypes regarding how they are viewed by lower status minority groups may be markedly different than those they hold with respect to how they are viewed by majority groups. Although to my knowledge research has yet to examine a higher status ethnic minority group's (e.g., Asian Canadians'/Americans') specific meta-stereotypes regarding how they are viewed by majority groups, research indirectly tapping into meta-stereotypes in intergroup interaction situations by examining the impression management goals of higher status ethnic minority groups (Bergsieker et al., 2010) and their perceptions of a majority group member's expertise in judging their competence and morality (Vorauer & Sakamoto, 2008) would suggest that higher status ethnic minority groups' majority meta-stereotypes are not particularly focused on morality.

On the other hand, because higher status ethnic minority groups may see themselves and their group as the victims rather than perpetrators of prejudice, they may expect that other people, namely lower status ethnic groups, will also view their group as victims. If this is the case, they are unlikely to expect that lower status groups will think of them as immoral and prejudiced. Further, research on prejudiced meta-stereotypes suggests that majority group members' meta-stereotypes of their group being viewed as prejudiced by ethnic minority groups stem from their recognition of their own prejudices towards the minority group (MacInnis & Hodson, 2012). Majority group members then project their own prejudices onto their ingroup (i.e., my ingroup members are also prejudiced) and the outgroup (i.e., outgroup members are prejudiced against my ingroup), which predicts their prejudiced meta-stereotypes (MacInnis &

Hodson, 2012). If higher status ethnic minority group members do not see themselves, or their group, as prejudiced against the lower status ethnic minority group, they may be unlikely to worry about being viewed as such. Moreover, if they believe the outgroup views them as victims, they are also unlikely to worry about being perceived as immoral—research suggests that it is perpetrators who are concerned about their moral image (Sullivan et al., 2012; Shnabel & Nadler, 2008). Instead, higher status ethnic minority group members could expect to be viewed according to “positive” stereotypes, particularly those associated with their higher status, such as high competence (e.g. Asian Americans as hard working and intelligent) or alternatively, negative stereotypes less associated with competence or morality (e.g., Asian Americans as submissive or lacking English language abilities; Zou & Cheryan, 2017).

In the present research, I explored these competing possibilities in a pilot study and in Study 1, unpacking and examining the specific content of ethnic minority group members’ interminority meta-stereotypes. I focused in particular on meta-stereotypes associated with competence and morality—two factors that figure prominently in person perception (Goodwin et al., 2014; Leach et al., 2007). I hypothesized that lower status ethnic minority group members’ interminority meta-stereotypes would focus on their low competence more so than their low morality (H1), whereas the opposite would be true for higher status ethnic minority group members (H2). Although I focused on meta-stereotypes associated with competence and morality, in the pilot study I utilized an open-ended measure to examine ethnic minority group members’ self-generated meta-stereotypes, which was likely to illuminate meta-stereotypes that are not clearly aligned with competence or morality—perhaps tapping in to other stereotypes (e.g., Asian Americans as submissive or as having poor English language abilities). These other meta-stereotype categories along with meta-stereotypes related to sociability, a third common factor in person perception (Goodwin et al., 2014; Leach et al., 2007), were also included in Study 1 and examined in an exploratory fashion.

It is important to note that research examining the content of stereotypes and perception more broadly has typically considered sociability and morality as a single factor representing warmth or communion (e.g., Abele & Wojciszke, 2007; Fiske et al., 2007; Fiske et al., 2002). However, in the present research, I examined sociability and morality as separate factors because I was particularly interested in a morality meta-stereotype and believe it holds distinct meaning separate from sociability. That is, feeling that one’s group is viewed as immoral or prejudiced

against another group is conceptually different from feeling one's group is seen as unfriendly. Further, several studies have found distinct implications of morality perceptions, which suggest that morality and sociability may be unique, albeit overlapping, dimensions (Goodwin et al., 2014; Leach et al., 2007). Particularly important to the present research examining meta-stereotype content, research has shown morality to be more important than sociability for how people view their ingroups (Leach et al., 2007). In that research, Leach et al. (2007) found morality, sociability, and competence to be distinct characteristics people ascribe to their ingroups, with the three-factor model fitting the data better than a two-factor model of warmth and competence.

The Importance of Meta-Stereotype Valence and Accuracy

The content of meta-stereotypes is important to understand because theory and research suggests that evaluative concerns centered on morality and competence can have distinct implications for intergroup interaction strategies and behaviours (Bergsieker et al., 2010; Vorauer, 2006). However, going beyond the content of meta-stereotypes, it is important to also consider how negatively ethnic minority group members perceive they are viewed overall (i.e., the overall valence of their meta-evaluations) and how accurate their meta-stereotypes and overall meta-evaluations are. Valence is important to consider because some researchers have suggested that intergroup outcomes such as intergroup anxiety and contact avoidance are better predicted by the overall valence of group based meta-evaluations than by the activation of specific group meta-stereotypes (Gordijn et al., 2008). This overall meta-evaluation judgement encapsulates all meta-evaluative concerns, not just those relevant to specific meta-stereotypes. Accuracy is important to consider because it speaks to how grounded in reality ethnic minority group members' perceptions are and it is relevant to whether improved communication to reduce inaccurate assumptions could be an effective intervention strategy. As such, I will turn next to considering the overall valence and accuracy of ethnic minority group members' meta-evaluations and possible outcomes associated with them.

Interminority Meta-Evaluation Valence and Accuracy

There is reason to believe that both higher and lower status ethnic minority groups will believe the other group views them negatively and perhaps more importantly, more negatively than they actually are viewed. Individuals tend to assume outgroup members are more dissimilar to themselves than they really are (Allen & Wilder, 1979) and may assume they have a different

perspective (Robinson et al., 1995). As such, in intergroup contexts it is assumed that people will rely less on their positive self-views when forming perceptions of how they are viewed by outgroup members and instead rely more on stereotypes in forming perceptions of how they and their group are viewed (Frey & Tropp 2006; Vorauer et al., 1998). In reality however, people expect outgroup members to rely on stereotypes more than people themselves actually rely on stereotypes when forming impressions of outgroup members (Vorauer & Kumhyr, 2001). This leads people to overestimate an outgroup's reliance on such stereotypes, resulting in overly negative meta-perceptions (Frey & Tropp, 2006; Vorauer & Kumhyr, 2001; Vorauer et al., 1998). A projection-based account of meta-stereotypes also posits that people are likely to project their own ingroup bias—even if they are not consciously aware of it—onto the outgroup (Kruger, 1996). These theories have been borne out in the literature, showing that people expect to be viewed negatively by outgroup members (Frey & Tropp, 2006; Krueger, 1996; Vorauer et al., 1998) and that people's meta-stereotypes (Krueger, 1996; Saroglou et al., 2011) and meta-perceptions during intergroup interactions (Vorauer & Kumhyr, 2001) are often inaccurate. For example, Krueger (1996) found that both Black and White Americans felt they were viewed more negatively by the other group than they actually were. I hypothesized that this would also be the case for higher and lower status ethnic minority groups and tested this hypothesis in a pilot study as well as in Studies 1 and 2 (H3).

Next, I consider how the overall negativity of ethnic minority group members' interminority meta-evaluations are likely to predict a number of outcomes important for interminority relations in general and solidarity more specifically. I then consider how the inaccuracy of ethnic minority group members' meta-evaluations are likely to be mirrored in other perceptions they have surrounding interminority contact and solidarity. I will begin by considering how the negative valence of ethnic minority group members' interminority meta-evaluations are likely to affect their interest in interminority contact and solidarity and how it may influence their decision to seize or avoid an opportunity to discuss interminority solidarity. Next I will consider how inaccurate interminority perceptions may manifest themselves in perceptions of the outgroup's interest in contact and solidarity.

Interest in Interminority Contact and Solidarity

The more negative higher and lower status ethnic minority group members' interminority meta-evaluations are, the less interested they should be in contact and solidarity with the ethnic

minority outgroup. If members of another group think poorly of a person's ingroup, that person is unlikely to want more contact with them, least of all to work closely with them to address sensitive issues such as discrimination. Indeed, past research has found that majority group members' negative meta-stereotypes are related to less interest in contact with minority group members (Mendez et al., 2007) and less perceived enjoyment in such contact (Vorauer et al., 1998). The same should then be the case for lower and higher status ethnic minority group members.

Further, the influence of higher and lower status ethnic minority group members' interminority meta-evaluations on their interest in contact and solidarity should be evident even when accounting for people's own feelings towards the other group. This is an important point to make because intergroup attitudes have long been thought of as a main predictor of intergroup outcomes. As such, in the present research, I conducted all analyses examining outcomes of ethnic minority group members' interminority meta-evaluations controlling for the effects of interminority evaluations. Some research suggests that negative meta-evaluations may be even more important than intergroup attitudes in predicting interest in future contact and solidarity (Finchilescu, 2010). Specifically, Finchilescu (2010) found people's meta-stereotypes to generally be a stronger predictor of intergroup anxiety—an outcome associated with intergroup contact (Pettigrew & Tropp, 2008) and motivations to avoid contact (Barlow et al., 2010)—than was their own prejudice. Overall then, ethnic minority group members' interminority meta-evaluations should play a unique and important role in predicting their interest in interminority contact and solidarity. Specifically, when controlling for other-evaluations, I hypothesized there would be a positive relationship between ethnic minority group members' interminority meta-evaluations and their interest in interminority contact and solidarity, such that the more positive (negative) their interminority meta-evaluations are, the more (less) interested they should be in contact and solidarity with the ethnic minority outgroup (H5). I tested this hypothesis in Study 2.

In Studies 1 and 2, I focused on people's attitudes toward contact and solidarity rather than observable behaviours associated with their willingness to seek solidarity during interactions with outgroup members. It is, however, also important to examine how ethnic minority group members' interminority meta-stereotypes affect behaviour during interminority interactions where the possibility exists for them to seek solidarity. As such, in Study 3 I

extended this work to examine behavioural outcomes that reflect ethnic minority group members' efforts towards building solidarity during interminority contact situations.

Avoidance of Interminority Solidarity Opportunities

Some amount of interminority contact is likely inevitable given the increasing diversity within many countries. However, in such contact situations people may choose to avoid meaningful discussions of interminority solidarity, instead focusing on "safer" topics where they may perceive a lower risk of rejection. Despite some contact between groups, if group members avoid such discussions, the development of political solidarity amongst ethnic minority groups may be significantly slower. This is an unfortunate outcome given the potential benefits to members of ethnic minority groups in working together for social change. It is important then to consider the effects of ethnic minority group members' interminority meta-evaluations on their willingness to embrace or avoid opportunities for discussions of interminority solidarity. It is especially important to consider because it is not completely clear whether ethnic minority group members' perceptions that members of the other group view their group negatively will necessarily inhibit them from seeking solidarity with that group. From the perspective of an ethnic minority group member, there may be potential costs and benefits associated with avoiding or seeking out such discussions with those who may view them negatively that need to be weighed.

On the one hand, there are reasons to believe that ethnic minority group members may be motivated to seize such opportunities to discuss solidarity even if they feel they are viewed negatively by the outgroup. People may not feel they have to get along in order to work together to achieve common goals. Indeed, for ethnic minority group members, the cost of working together with someone who they believe views them negatively (e.g., tension, conflict) may not deter them from seeking cooperation if they believe it will help them to achieve difficult outcomes such as more equitable policies and societies. Further, ethnic minority group members may see overtures of solidarity as a way to disconfirm negative meta-stereotypes through impression management. That is, when interactions with a member of an ethnic minority outgroup do occur, either unavoidably or by choice, the benefits of making an overture of solidarity (e.g. possibly disconfirming negative meta-stereotypes) may outweigh the costs (e.g., rejection). Higher status ethnic minority groups could seek such discussions to show they are not prejudiced, and lower status ethnic minority group members could seek them out as an

opportunity to show competence by highlighting what their group can offer to the outgroup. Such impression management concerns and strategies are not uncommon during intergroup interactions (Bergsieker et al., 2010; Swencionis & Fiske, 2016) and likely reflect evaluative concerns based on perceived stereotypes.

On the other hand, negative meta-evaluations could instead lead to increased avoidance of discussions about cooperation. In fact, even if people see the benefits of working together with members of other ethnic minority groups, they may be reluctant to bring such topics up during interminority exchanges where such alliances can be formed, for fear of being rejected by an outgroup they perceive as unaccepting of their ingroup. Shelton and Richeson (2005) found that majority group members' explanation for their avoidance of intergroup contact as due to a fear of rejection was negatively correlated with the amount of intergroup contact they had throughout the remainder of the semester. Research on dispositional race-based rejection sensitivity also suggests that those who are sensitive to such rejection are less likely to seek out and utilize resources which exist to help them, suggestive of an overall avoidance of potential threatening situations (Mendoza-Denton et al., 2002). Overall then, I argue, it seems most likely that negative meta-evaluations reduce ethnic minority group members' desire to seek solidarity during interminority exchanges.

In Study 3, I explored these competing hypotheses by examining the influence of ethnic minority group members' interminority meta-evaluations on their decisions about whether to avoid or seek opportunities to discuss cooperation during interminority exchanges. I also examined higher and lower status ethnic minority group members' avoidance of discussion of interminority solidarity within both interminority exchanges (i.e., with a member of the opposing status ethnic minority group), where negative meta-stereotypes and related meta-perceptions should be active, and intragroup exchanges (i.e., with a member of the same ethnic group). Paradoxically, if my hypothesis is correct, members of higher and lower status ethnic minority groups may be more likely to discuss interminority solidarity during exchanges with members of their own ethnic minority group than with members of the other group because the costs of doing so (i.e., rejection) appear to be lower (H6).

Perceptions of Outgroup's Interest in Interminority Contact and Solidarity: A Case of Pluralistic Ignorance?

If ethnic minority group members' interminority meta-evaluations are exaggerated in negativity as I have hypothesized—underestimating how positively an outgroup views them—it may also be the case that they underestimate ethnic minority outgroup members' interest in contact and solidarity with their own group. Moreover, if each ethnic minority group underestimates the interest of other minority groups in contact and solidarity, this is likely to result in them perceiving their own group as more interested than members of other ethnic minority groups. This would parallel the pluralistic ignorance demonstrated in relations between majority (White Americans) and minority group members (Black Americans) with respect to interest in contact (Shelton & Richeson, 2005). Shelton and Richeson (2005) found that both White and Black Americans perceive the other group as less interested in contact than they really are, and their own group as more interested in contact than the outgroup. Shelton and Richeson also found that White and Black Americans made divergent attributions for their own and the outgroup's avoidance of intergroup contact, attributing their own avoidance to a fear of rejection, while attributing the outgroup's avoidance to a lack of interest. These divergent attributions—or pluralistic ignorance—exhibited by majority and minority group members were manifest in divergent perceptions of their own versus outgroup members' interest in contact. I hypothesized that members of ethnic minority groups would exhibit similar tendencies in interminority contexts and that these tendencies would extend to perceptions of interest in interminority solidarity. If this is the case, addressing this pluralistic ignorance may represent a particularly potent avenue for interventions, focusing on specific perceptions—an outgroup's interest in contact and solidarity—rather than a broad set of perceptions such as those implicated in meta-stereotypes.

Although Shelton and Richeson (2005) used the term pluralistic ignorance to describe divergent attributions people made for their own and another person's similar behaviour, I will borrow the term in referring to the divergent perceptions ethnic minority group members may have of their own and an outgroup's interest in contact and solidarity. The term pluralistic ignorance aptly captures the idea that members of both groups might believe that the other group feels more negatively than they themselves do about contact and solidarity. I expected that both higher and lower status ethnic minority group members would exaggerate the minority outgroup's lack of interest in contact and solidarity—feeling the outgroup was less interested

than they really were—and perceive their own group as more interested in contact and solidarity than the other group (H7).

Having discussed the valence and accuracy of higher and lower status ethnic minority groups' meta-stereotypes and meta-evaluations and the resulting outcomes, I turn last to consider possible differences that may emerge between members of higher and lower status groups in these areas.

Status Differences: Is High Status as Bad as Low Status?

Even though higher and lower status ethnic minority group members are both likely to believe their group is viewed more negatively than they actually are by the outgroup, they may also differ in how negatively they feel their group is viewed. In other words, one group may perceive more negative meta-stereotypes than the other. If this is the case, the groups may then differ in their interest in contact and solidarity, which I expect to be associated with the overall negativity of ethnic minority group members' meta-evaluations. Whether or not this is the case likely depends on whether higher status group members feel their group is viewed as prejudiced and immoral, according to positive stereotypes related to their own competence, or according to other stereotypes. If the latter, members of lower status minority groups—whose interminority meta-stereotypes are likely to center on perceptions that their group is seen as less competent—are likely to perceive that they are viewed more negatively than do members of higher status ethnic minority groups. Research suggests that people's perceptions of their own competence are positively related to their self-esteem (Wojciszke et al., 2011). As such, meta-stereotypes that contradict one's self-view as competent should be particularly threatening to one's identity and perceived very negatively. If, however, higher status group members feel their group is viewed as prejudiced and immoral, they are likely to find such meta-stereotypes just as, if not more threatening and negative as do lower status minority groups find meta-stereotypes focused on their lack of competence. While self-views of competence are very important, in the eyes of others it should be extremely aversive to feel oneself and one's group are viewed as prejudiced and immoral. Indeed, Leach et al. (2007) found that people's perceptions of their ingroup's morality were more important than perceptions of their ingroup's competence or sociability in people's overall view of their ingroup. Further, despite a link between self-ratings of competence and self-esteem, Abele and Wojciszke (2007) found that people rated communal traits (i.e., warmth and morality) as more important than traits related to agency (i.e., independence and

competence) for both themselves and others. In fact, individuals tend to rate themselves as comparatively more communal than agentic (Wojciszke et al., 2011). Moreover, some research does suggest that for people from interdependent cultures, where communal traits are more highly valued, there is a link between people's perceptions of their communal traits and their own self-esteem (Anthony et al., 2007). Therefore, if the higher status ethnic minority group comes from a more interdependent culture, such as those in many East Asian countries, perceptions that their group and consequently themselves may be viewed as immoral should also threaten their social identity.

There is no direct evidence to support one of these outcomes over the other. However, there is some indirect evidence that might support the hypothesis that lower status ethnic minority groups will feel their group is viewed more negatively by the higher status group than vice versa. Specifically, research suggests that members of lower status ethnic minority groups (Black Americans) tend to perceive lower public regard (Bikman, 2011) and have lower public collective self-esteem (Crocker et al., 1994) than do members of higher status ethnic minority groups (Asian Americans). It is still unclear though how higher and lower status ethnic minority group members' perceived public regard and public collective self-esteem will relate to their interminority meta-stereotypes. Perceived public regard and public collective self-esteem reflect how positively people perceive their ethnic group is viewed by other groups in general, not by a specific outgroup. It does seem plausible however that lower status group members may perceive consensus in how their group is viewed, particularly by higher status ethnic groups. For members of higher status ethnic minority groups, however, their generally higher feelings of public regard may not accurately reflect how they feel their group is viewed by lower status ethnic minority group members. It is somewhat unclear then whether higher and lower status ethnic minority group members will differ in how negatively they feel they are viewed by the other group. As such, I refrained from making any specific hypotheses, instead examining any possible differences in an exploratory fashion across the studies.

The Present Research

The present research examined these research questions across a pilot study and a series of three studies focusing specifically on relations and interminority meta-stereotypes of Black Americans (low status) and Asian Americans (high status). These groups were selected because these groups reflect a generally clear distinction in the societal status hierarchy—both in terms of

people's perceptions (see status ratings in Bergsieker et al., 2010) and objective indicators of status (Noël, 2018). Moreover, relations between the groups has not historically been one of cooperation or solidarity. Instead, at times it has been fraught with tension, such as between Korean American shop owners and Black American customers that resulted in outright conflict during the Los Angeles riots, with the two groups only recently showing organized solidarity around the issue (Parvini & Kim, 2017). As such, I believed these groups would provide a good test of the research hypotheses. However, it should be noted that these broad ethnic categories (Asian and Black Americans) themselves contain diversity (e.g., culture, status, ethnicity) even if they are meaningful in societal discourse.

First, in a pilot study, I used open-ended measures to assess the content of higher and lower status ethnic minority group members' interminority meta-stereotypes without imposing my own ideas and structure. In Study 1, guided by the results of the pilot study, I further examined the content of ethnic minority group members' interminority meta-stereotypes and how they differed from each group's perception of how they are viewed by the majority group (White Americans). I also examined the valence and accuracy of their overall interminority meta-evaluations. In Study 2, I examined the relation of ethnic minority group members' interminority meta-evaluations, in particular their overall valence, to ethnic minority group members' interest in interminority contact and solidarity. Study 2 also assessed the possibility that both higher and lower status ethnic minority group members exhibit pluralistic ignorance in their perceptions of the outgroup's interest in contact and solidarity relative to their own group. Last, in a final study (Study 3), I extended the findings of Study 2 to examine a behavioural outcome of ethnic minority group members' meta-evaluations. Specifically, I examined how the overall negativity of ethnic minority group members' meta-perceptions within an intragroup or intergroup interaction context affected efforts to seek interminority solidarity during back-and-forth exchanges. See Table 1 for a full list of hypotheses across each study.

Before discussing the specific studies, it is important to also recognize my own positionality as a White Canadian male researcher, particularly one who is a member of an ethnic majority group. The focus of my research and hypotheses, in particular on negative meta-stereotypes, are based on my own perception of what outcomes I believe are particularly important, underexamined (e.g., interminority solidarity) and most theoretically interesting. Inevitably, these perceptions are influenced by my own ethnicity, specifically the fact that I am

Table 1

Research Hypotheses

Number (Study)	Hypothesis	Support
Interminority Meta-Stereotype Content		
H1a (Pilot Study)	Lower status ethnic minority group members would list a greater proportion of interminority meta-stereotype traits related to competence than morality.	Not Supported
H1b (Study 1)	Lower status ethnic minority group members' competence-based interminority meta-stereotypes would be more negative in valence than would those of the higher status ethnic minority group.	Supported
H1c (Study 1)	Lower status ethnic minority group members' competence-based interminority meta-stereotypes would be more negative than their morality-based interminority meta-stereotypes.	Not Supported
H2a (Pilot Study)	Higher status ethnic minority group members would list a greater proportion of interminority meta-stereotype traits related to morality than competence.	Not Supported
H2b (Study 1)	Higher status ethnic minority group members' morality-based interminority meta-stereotypes would be more negative in valence than would those of the lower status ethnic minority group.	Not Supported
H2c (Study 1)	Higher status ethnic minority group members' morality-based interminority meta-stereotypes would be more negative than would their competence-based interminority meta-stereotypes.	Supported
Negativity Bias		
H3a (Pilot Study)	Both higher and lower status ethnic minority group members would perceive interminority meta-stereotypes as negative in valence.	Partially Supported (Black Americans only)
H3b (Pilot Study)	Both higher and lower status ethnic minority group members would perceive they are viewed more negatively overall, according to the valence of their meta-stereotypes, by the ethnic minority outgroup than the outgroup actually viewed them.	Partially Supported (Black Americans only)
H3c (Study 1 and 2)	Both higher and lower status ethnic minority group members would perceive they are viewed more negatively overall, according to thermometer ratings, by the ethnic minority outgroup than the outgroup actually views them.	Partially Supported (Asian Americans did not in Study 1)

Number (Study)	Hypothesis	Support
H3d (Study 3)	Both higher and lower status ethnic minority group members would believe they were viewed more negatively by an outgroup interaction partner than an ingroup partner.	Not Supported
The Relational Nature of Meta-Stereotypes		
H4a (Study 1)	Higher status ethnic minority group members would perceive they are viewed as less moral by the lower status ethnic minority outgroup than they feel they are viewed by the majority group.	Supported
H4b (Study 1)	Lower status ethnic minority group members would not differ in how competent they feel they are viewed by the majority group and the higher status ethnic minority outgroup.	Not Supported
Interminority Meta-Evaluations and Contact and Solidarity		
H5 (Study 2)	For both higher and lower status ethnic minority group members, the more positive (negative) their meta-evaluations are, the more (less) interested they would be in interminority contact and solidarity.	Not Supported (when controlling for other-evaluations)
H6a (Study 3)	Both higher and lower status ethnic minority group members would rank their preference for discussing interminority solidarity lower when they believed they were interacting with an ethnic minority outgroup member relative to an ingroup member.	Partially Supported (Black Americans only)
H6b (Study 3)	Participant's avoidance of discussing interminority solidarity during interminority relative to intragroup exchanges would be mediated by negative meta-evaluations.	Not Supported
Pluralistic Ignorance in Perceptions of Outgroup's Interest in Contact and Solidarity		
H7a (Study 2)	Both higher and lower status ethnic minority group members would perceive themselves as more interested in contact and solidarity with the outgroup than they perceived the outgroup is in contact and solidarity with their own group.	Supported
H7b (Study 2)	Both higher and lower status ethnic minority group members would perceive members of the other group as less interested in contact and solidarity than the outgroup members actually were.	Supported

not a member of either group (Black or Asian Americans). For Asian and Black Americans, the results of the present research may be distressing at times, particularly those with respect to negative stereotype content. It is important to remember that the particular traits listed represent people's perceptions of the stereotypes held by other people (i.e., by their own group and the outgroup), and are not necessarily stereotypes that they personally endorse or perceive to be valid. Further, it is because of the distress that meta-stereotypes can cause that it is important to understand them and their influence on important outcomes. Regardless, in the present research I tried to mitigate participants' distress throughout.

Pilot Study

The purpose of the pilot study was to examine in a preliminary fashion, both quantitatively and descriptively, the meta-stereotypes that higher and lower status ethnic minority group members hold in regard to each other using open-ended measures that allow individuals to express their own perceptions rather than imposing my own. This is important because little to no research exists examining such perceptions and it is unclear to what degree ethnic minority group members see the general stereotypes that exist within society as reflecting majority group members' views of them as opposed to the views of other ethnic minority groups. If societal stereotypes are seen to be driven by majority group members' views, then they may not necessarily be reflected in ethnic minority group members' interminority meta-stereotypes. The pilot study also examined ethnic minority group members' perceptions of the stereotype traits their own group ascribes to the outgroup in order to conduct a preliminary assessment of the accuracy of each group's meta-stereotype valence.

In the pilot study, I asked members of ethnic minority groups—half of them higher status (Asian Americans) and half of them lower status (Black Americans)—how they believe their group is viewed by the other group. Specifically, I asked them to list qualities or traits they feel the other group believes their own group possesses. For each trait, I asked participants to rate what percentage of their group the outgroup believes possess that trait and how negative or positive they perceive the trait to be. The frequency with which participants listed specific traits was used to select common traits to be included within the meta-stereotype scales of Study 1.

I used participant ratings of the negativity of each trait to assess whether ethnic minority group members saw the meta-stereotype trait as a positive one or a negative one and to get a sense of the valence of their meta-stereotypes without imposing my own interpretation. This is

important because my own interpretation and that of the participants may not match. For example, although feeling one's group is viewed as competitive could be seen as positive, because it could suggest that a group is motivated in pursuing its goals, it may be perceived as negative by the participant who feels that it reflects the perception their ingroup pursues such goals at the expense of other groups. In the pilot study, I also examined the overall structure and content of ethnic minority group members' self-generated interminority meta-stereotypes descriptively. As I was also interested to understand how accurate ethnic minority group members' meta-stereotype valence were relative to the outgroup's stereotypes, I also assessed each group's perception of the stereotypes their own group holds about the outgroup in the same manner as I assessed meta-stereotypes.

A group of three coders examined the generated meta-stereotypes and other-stereotypes seeing first if the traits fit within the three factors of person perception encompassing: competence, sociability, and morality (a factor which included prejudice). The generated traits deemed not to fall within one of the three existing categories were then grouped together into new categories generated and agreed upon by all three coders and myself. I examined the proportion of traits listed that fall into each category.

Hypotheses

Examining the proportion of traits listed that fall into each of the meta-stereotype categories provides meaningful information about the relative importance of each category to higher and lower status ethnic minority group members' interminority meta-stereotypes. If people list traits associated with a particular category relatively more frequently than traits associated with other categories, it suggests that category has greater importance to the overall meta-stereotype. In examining the proportion of traits falling within each meta-stereotype category, I constrained my confirmatory analyses to the proportion of meta-stereotype traits listed related specifically to competence and morality. I examined differences between other meta-stereotype categories in an exploratory fashion. I hypothesized that:

***H1a:** Lower status ethnic minority group members would list a greater proportion of interminority meta-stereotype traits related to competence than morality.*

***H2a:** Higher status ethnic minority group members would list a greater proportion of interminority meta-stereotype traits related to morality than competence.*

If higher and lower status ethnic minority group members perceived the meta-stereotype traits they believe the other group endorses as negative (i.e., mean ratings significantly below the mid-point of the scale) and more negative than the outgroup's other-stereotype traits, this would provide support for my next hypotheses:

***H3a:** On average, both higher and lower status ethnic minority group members hold interminority meta-stereotypes that are negative in valence.*

***H3b:** According to the valence of their meta-stereotypes, both higher and lower status ethnic minority group members would perceive they are viewed more negatively overall by the ethnic minority outgroup than the outgroup actually viewed them.*

In the pilot study, I focused my analyses on the valence of ethnic minority group members' self-generated interminority meta-stereotypes and differences in the importance of competency and morality concerns for each group and their overall accuracy. Ethnic minority group members' self-generated meta-stereotypes that are not associated with competence or morality are explored descriptively. I then examine my more detailed hypotheses regarding ethnic minority group members' meta-stereotypes in greater depth in Study 1 where I have a larger sample size and rely on a more controlled measure of meta-stereotype content. The pilot study also served to help inform the meta-stereotype measure used in Study 1. Specifically, I used ethnic minority group members' self-generated meta-stereotypes to help derive representative items for the meta-stereotype scales.

Method

Participants

I recruited 128 ethnic minority group members – half of them from a higher status group (64 Asian Americans) and half of them from a lower status group (64 Black Americans) from Mturk utilizing TurkPrime (Litman et al., 2017) to target my study to participants with Black and Asian American ethnic backgrounds ($M_{\text{age}} = 36.258$ years, 63% female). As age and gender were not related to any of the dependent variables across the four studies, with the exception of a single analysis in Study 1,¹ they were not included as covariates in analyses. The sample size was chosen based on a power analysis using G*Power (Faul et al., 2007), which indicated a sample size of 128 participants would provide adequate statistical power (90%), assuming a small effect size ($f = .175$) for the two-way interaction and within-subjects factor of a mixed-design ANOVA. Participants completed the 10-minute study in exchange for \$0.75 compensation. The full sample

consisted of 219 participants. However, 31 participants (14.155%) were excluded because they failed to complete multiple dependent measures (i.e., two or more dependent measures), two participants (0.913%) were excluded for providing meaningless responses on the open-ended measures (e.g., repeating the same non-trait), 20 participants (9.132%) were excluded for having indicated an ethnic background other than Black or Asian American, and 40 participants (18.265%) were excluded for inattentive responding as identified by the 33-item Attentive Responding Scale (Maniaci & Rogge, 2014).

The attentive responder scale assesses the attentiveness of participants' responses across the survey using measures of consistency (i.e., the consistency of responses to pairs of items assessing the same construct) and infrequency (i.e., responses to questions where certain responses are unlikely if participants are attentive; Maniaci & Rogge, 2014). Scores are assigned according to how consistent participants' responses are and how often and to what degree they provide responses that should be infrequent (Maniaci & Rogge, 2014). Specifically, consistency scores are derived by calculating the sum of all differences in participants' responses on pairs of consistency items and infrequency scores are calculated as the sum of deviations from expected responses on infrequency questions (e.g., a response of 2 when 4 is expected results in a score of 2; Maniaci & Rogge, 2014). Maniaci & Rogge (2014) provide validated cut-scores and recommend excluding participants whose score on the consistency or infrequency subscales are more extreme than these cut-scores.

Procedure

Participants were recruited for a study examining people's perceptions of how different groups view each other. Participants began by indicating their consent to participate (see Appendix A). Participants then read a set of instructions for the study designed to enhance attentiveness (see Appendix B) and completed the first half of the Attentive Responding Scale (Maniaci & Rogge, 2014). After this, participants provided some basic demographic information (i.e., age, gender, ethnicity, and how long they have lived in the US; see Appendix C). Next, participants read study instructions meant to alleviate social desirability concerns (see Appendix D).

After these instructions, participants listed 5 qualities or traits they felt the outgroup (Black/Asian Americans) believes their own group possesses (see Appendix E). For each trait, I then asked participants to rate what percentage of their group the outgroup believes possess that

trait and how negative or positive they perceive the trait to be (see Appendix F). In the present research, I decided to limit participants' self-generated meta-stereotype traits to five in an effort to keep the task difficulty (difficulty of retrieval) reasonable. If I asked participants to list more traits than are easily accessible the meta-stereotype itself may have seemed less defined. Research suggests that the ease with which people can identify meta-stereotypes affects their outcomes (Vázquez et al., 2017). Listing five traits provided participants with sufficient opportunity to list traits from each of the three meta-stereotype categories as well as possible traits not associated with these categories.

Next, participants listed 5 qualities or traits they felt their own group believed the outgroup possesses (other-stereotype; see Appendix G) and were subsequently asked to rate what percentage of the outgroup their ingroup believes possess each trait and how negative or positive they perceive each trait to be (see Appendix H). After completing the dependent measures, participants rated their perceptions of the status of their own ethnic group and the ethnic minority outgroup (see Appendix I) and provided additional demographic information (see Appendix J). Specifically, participants indicated their ethnic background again on a measure that provided greater specificity, particularly within Asian ethnicities (e.g., South Asian, South East Asian, West Asian), completed two measures assessing their objective socioeconomic status (i.e., education level and family income; Kraus & Tan, 2015) and one item assessing their perceived socioeconomic status (Adler et al., 2000). Next, participants completed the final half of the Attentive Responding Scale (Maniaci & Rogge, 2014). Lastly, participants read a debriefing, which provided them with information about the study and my hypotheses.

Measures

Meta-Stereotype trait valence. Participants rated the overall positivity of each meta-stereotype trait on 7-point scales ranging from 1 (*Extremely positive*) to 7 (*Extremely negative*). Meta-stereotype trait valence ratings were then reverse scored so that higher scores equal greater positivity. Ratings of meta-stereotype trait valence showed acceptable reliability ($\alpha = .837$) and were thus averaged to create an index of meta-stereotype valence.

Other-Stereotype trait valence. The valence of participants' other-stereotype was rated in the same fashion as their meta-stereotype trait valence. Ratings of other-stereotype trait valence showed acceptable reliability ($\alpha = .744$) and were thus averaged to create an index of other-stereotype valence.

Trait strength. Participants rated the percentage of their group the outgroup believes possess each trait from 0% to 100%.

Meta-stereotype categories. Three coders who were blind to participant ethnicity and the research hypotheses categorized traits into categories. The coders consisted of one Chinese male, one White female and one South Asian female, all of whom were students at a Canadian university. Interrater reliability of the coders was assessed by computing Krippendorff's alpha (Krippendorff, 2004). The process was conducted in three rounds. In the first round, coders assessed each trait listed by participants and decided whether it fit within one of the three pre-determined categories (i.e., competence, morality, and sociability), which were further sub-classified by valence (i.e., high versus low) to form six total categories. Although my hypotheses focused specifically on the broad categories, which ignore valence, I felt that it was important for the coding to also capture the valence of the traits in order to allow for a more fine-grained examination of meta-stereotypes in both description and post-hoc analyses. At this stage, all traits not fitting into one of the six pre-determined categories were marked as uncategorized. In this initial round of coding, agreement among coders ($\alpha = .607$) was below the level of acceptability ($\alpha = .667$) indicated by Krippendorff (2004, p. 241).

In the second round, coders examined the remaining uncategorized traits and came to agreement upon new trait categories that seemed to encapsulate the remaining traits. During the second round, coders also discussed the initial coding instructions and definitions for the pre-defined categories in order to make sure that everyone was using the same judgment criteria. At this time, I also provided coders with additional information that they were examining stereotypes in order to help coders better determine the probable meaning and thus related category of listed traits.

In the final round, where the coders categorized all traits according to the final list of categories and their definitions, interrater reliability was acceptable ($\alpha = .826$). The final trait categories, including the six pre-determined categories, decided upon by the coders included: (1) low competence, (2) high competence, (3) low morality, (4) high morality, (5) low sociability, (6) high sociability (7) low status, (8) high status, (9) appearance, and (10) foreignness. However, the final two categories (accounting for only 18% of traits listed) are not discussed and are treated as uncategorized. The characteristics captured within these categories represented mostly aspects of physical appearance (e.g., short and tall) and food preferences (e.g., likes rice),

which did not fit well with the focus of the present research on psychological traits and characteristics.

Consistent with past research attesting to the importance of competence, morality, and sociability concerns in group and person perception (e.g., Goodwin et al., 2014; Leach et al., 2007), I found that the majority of meta-stereotype traits listed by participants (71%) fell within these three broad categories (i.e., collapsing across high and low valence).

Meta- and other-stereotype category importance. A measure of the importance of each category to each group's meta- and other-stereotype was created by calculating the proportion of traits listed by each participant that fell into each category. For example, a participant who listed four traits, two identified as related to morality, one as related to competence and one as related to sociability, would have the following proportions: morality (.500), competence (.250) and sociability (.250). Thus, I assessed differences in these proportions to better understand the relative importance of morality and competency concerns within each group's meta-stereotype.

Perceptions of group status. Perceptions of each group's status were assessed using one item per group modified from Major et al. (2002). Participants rated the status of their own and the ethnic minority outgroup according to how people see the groups' status on 7-point scales ranging from 1 (*Extremely low status*) to 7 (*Extremely high status*).

Socioeconomic status. Participants' objective socioeconomic status was assessed using two indicators previously used by Kraus and Tan (2015). Participants indicated their family's annual household income using seven categories: 1 (*less than \$15,000*), 2 (*\$15,001-\$30,000*), 3 (*\$30,001-\$45,000*), 4 (*\$45,001-\$75,000*), 5 (*\$75,001-\$100,000*), 6 (*\$100,000-\$150,000*) and 7 (*greater than \$150,000*). Participants also rated their highest level of educational achievement using three categories: (1) high school graduation, (2) college graduation, and (3) post-graduate degree. Participants' subjective socioeconomic status was also assessed using the MacArthur Scale of Subjective Social Status (Adler et al., 2000), which asks participants to select which rung on a 10-rung ladder they fall on where each rung represents ascending levels of income, education and job prestige. However, I relied on objective socioeconomic status when assessing status differences between Black and Asian Americans in the present study.

Results

Preliminary Analyses

I began by assessing participants' relative perceptions of the status of Black and Asian Americans to confirm that participants indeed saw the groups as differing in status and that these differences were in the expected direction. I utilized a 2 (participant ethnicity: Asian vs. Black) x 2 (target ethnicity: Asian vs. Black) mixed-design Analysis of Variance (ANOVA), where participant ethnicity was a between-subjects factor and target ethnicity was a within-subjects factor. Results revealed only a main effect of target ethnicity, $F(1, 126) = 222.276, p < .001, \eta_p^2 = .638, 95\% \text{ CI } [1.762, 2.301]$, such that Asian Americans ($M = 5.102, SD = 0.987$) were seen to be higher in status than Black Americans ($M = 3.070, SD = 1.353$). Thus, participant perceptions of group status differences are consistent with expectations. Moreover, results suggested that participants' own socio-economic status as assessed by education levels and family income were consistent with perceptions of group status differences. Mann-Whitney U tests indicated that Asian Americans indicated having higher levels of education ($M = 2.031, SD = 0.503$) than Black Americans ($M = 1.781, SD = .654$), $U = 4569, z = 2.471, p = .013, r = .218$; as well as higher levels of annual household income ($M_{Asian} = 4.141, SD_{Asian} = 1.708; M_{Black} = 3.391, SD_{Black} = 1.305$), $U = 4679, z = 2.684, p = .007, r = .237$.

Meta-Stereotype Traits

As a major purpose of the pilot study was to better understand the specific meta-stereotype content of both groups, it is important to highlight some of the traits most commonly listed by people within each ethnic group. Although purely descriptive, this helps to illuminate the individual traits perhaps most important to each group's interminority meta-stereotype. For Asian Americans, the most commonly listed traits (i.e., those listed at least 5 times) were: smart (12.338%), hardworking (6.494%), quiet (3.571%), intelligent (3.247%), good at math (2.597%), nerdy (2.597%), cheap (1.623%), greedy (1.623%), reserved (1.623%), rich (1.623%), and stingy (1.623%). For Black Americans, the most commonly listed traits were: lazy (10.839%), aggressive (4.196%), uneducated (3.846%), unintelligent (3.846%), athletic (3.497%), poor (3.497%), ghetto (3.147%), angry (2.797%), mean (2.797%), thieves (2.448%), criminal (2.098%), dishonest (2.098%), rude (1.748%), and thugs (1.748%). These traits were counted separately, regardless of redundancy, and provide insight into some of the most commonly listed individual traits. However, for my quantitative analyses, I focused on the frequency of all traits listed falling within a category to better capture the overall pattern, and because there were often

many inter-related traits or characteristics pertaining to a category (e.g., criminal and thugs), with some of these traits being listed only once or twice.

As my hypotheses pertained only to competence and morality-based meta-stereotypes, the reported analytic results focused solely on these trait categories. However, Table 2 includes the frequencies of traits listed within each category broken down by participant ethnicity, stereotype target, and coder classified valence.

Table 2

Mean (SD) Proportion of Traits Listed by Ethnicity, Category, Valence and Stereotype Target in the Pilot Study

Category	Ethnicity	
	Black Americans	Asian Americans
Competence		
High	.122 _a (.200)	.352 _a (.183)
Low	.220 _b (.194)	.053 _b (.102)
Total	.342 (.212)	.405 (.203)
Morality		
High	.016 _a (.054)	.062 _a (.128)
Low	.260 _b (.224)	.062 _a (.128)
Total	.276 (.223)	.125 (.165)
Sociability		
High	.044 _a (.131)	.041 _a (.081)
Low	.069 _a (.102)	.134 _b (.192)
Total	.112 (.115)	.175 (.197)
Status		
High	.006 _a (.035)	.034 _a (.084)
Low	.104 _b (.156)	.041 _a (.083)
Total	.110 (.159)	.076 (.116)

Note. Means in columns within each category with different subscripts are significantly different at $\alpha = .05$ controlling family-wise error rate using a Bonferroni adjustment.

Importance of Competence Versus Morality

The importance of competence and morality to each group's meta-stereotype was assessed using a 2 (participant ethnicity: Asian vs. Black) x 2 (stereotype category: competence

vs. morality) mixed-design Analysis of Variance (ANOVA). Participant ethnicity was a between-subjects factor and meta-stereotype category was a within-subjects factors. An inspection of Q-Q-plots suggested that the dependent variables and residuals showed signs of non-normality. However, as the results of a robust bootstrapped mixed-design ANOVA conducted on trimmed means following procedures recommended by Wilcox (2017) showed the same effects, I report the standard mixed-design ANOVA because it is easier to interpret. For simple effects tests, I report both the standard parametric tests and bootstrapped 95% confidence intervals of the mean differences based on 10,000 samples conducted using the *boot* (Canty & Ripley, 2019) and *emmeans* (Lenth, 2020) packages in R (Version 3.6.2). The results revealed a significant two-way interaction between stereotype category and ethnicity, $F(1, 126) = 13.904, p < .001, \eta_p^2 = .099$. To test hypotheses 1a and 2a, regarding the importance of competence and morality for both groups, I examined the simple effects of stereotype category within each group. Inconsistent with hypothesis 1a, Black participants did not differ significantly in the proportion of meta-stereotype traits they listed related to competence ($M = .342, SD = .212$) relative to morality ($M = .276, SD = .223$), $t(126) = 1.617, p = .109, r = .143, 95\% CI [-.021, .154]$, although the pattern of means was in the expected direction. Further, contrary to hypothesis 2a, Asian participants listed a significantly greater proportion of traits related to competence ($M = .405, SD = .203$) than morality ($M = .125, SD = .165$), $t(126) = 6.890, p < .001, r = .523, 95\% CI [.206, .348]$. As such, I did not find support for hypotheses 1a or 2a. Indeed, instead Asian Americans' meta-stereotype focused more on perceptions of their group's competence than morality, whereas Black American's meta-stereotypes seemed to focus both on perceptions of their group's competence and morality.

The fact that Asian Americans listed more traits related to competence than morality was unexpected. However, given that the most common traits Asian Americans listed were related to high competence and Asian Americans indicated a somewhat positively valenced meta-stereotype regarding how they are viewed by Black Americans, it seemed probable that their competence-based meta-stereotypes were focused more on positive than negative traits (i.e., focused on their higher competence). In contrast, Black Americans' competence and morality-based meta-stereotypes seem more likely to have focused on negative traits (i.e., their lack of competence and morality) given the content of their most commonly listed traits and the overall

negativity of their interminority meta-stereotype. A perusal of the means and post-hoc comparisons support this observation (see Table 2).

Meta-Stereotype Valence

I computed the overall valence of each group's interminority meta-stereotypes as the mean of participants' valence ratings across all listed traits. In order to test hypothesis 3a, the overall negativity of each group's meta-stereotypes was assessed using separate one-sample *t*-tests comparing the mean overall valence of each group's meta-stereotypes against the midpoint of the scale (i.e., four). A lower score represented a more negative meta-stereotype. Consistent with hypothesis 3a, Black participants rated the overall valence of their meta-stereotypes regarding how their group is viewed by Asian Americans as significantly negative ($M = 2.535$, $SD = 1.301$), $t(62) = -6.404$, $p < .001$, $d = -0.807$, 95% CI [2.078, 2.993]. However, Asian participants rated the overall valence of their meta-stereotypes as significantly positive ($M = 4.451$, $SD = 1.815$), $t(63) = 2.772$, $p = .007$, $d = 0.347$, 95% CI [4.126, 4.776]. Thus, hypothesis 3a was only partially supported. The data suggest that Black Americans feel that they are viewed quite negatively overall, whereas Asian Americans feel they are viewed somewhat positively overall. However, it is important to note that the average valence of Asian Americans' meta-stereotype was not so high as to be classified as positive on the scale (i.e., 5 = somewhat positively), perhaps indicating a certain amount of ambivalence.

In order to assess Hypothesis 3b, I examined the accuracy of each ethnic minority group's meta-stereotype valence against the other group's other-stereotype valence. I used a 2 (participant ethnicity: Asian vs. Black) x 2 (stereotype target: self vs. other) mixed-design Analysis of Variance (ANOVA), where participant ethnicity was a between-subjects factor and stereotype target was a within-subjects factors.

Results revealed a significant main effect of stereotype target, $F(1, 125) = 9.675$, $p = .002$, $\eta_p^2 = .072$, that was qualified by a significant two-way interaction, $F(1, 125) = 104.692$, $p < .001$, $\eta_p^2 = .456$. Examining the accuracy of the valence (i.e., "valence accuracy") of Black Americans' interminority meta-stereotypes, simple effects tests revealed that consistent with hypothesis 3b, Black Americans felt they were viewed significantly more negatively by Asian Americans ($M = 2.535$, $SD = 1.815$) than they actually were viewed by Asian Americans (Asian Americans' other-stereotype valence, $M = 3.273$, $SD = 1.621$), $t(234) = -2.716$, $p = .007$, $r = .175$, 95% CI [-1.273, -0.203]. Examining the valence accuracy of Asian Americans' interminority

meta-stereotypes, inconsistent with hypothesis 3b, simple effects tests revealed no evidence that Asian Americans showed such bias in their meta-stereotypes of how they are viewed by Black Americans (Asian Americans' meta-stereotype valence, $M = 4.451$, $SD = 1.301$; Black Americans' other-stereotype valence, $M = 4.741$, $SD = 1.330$), $t(234) = -1.069$, $p = .286$, $r = .070$, 95% CI [-0.826, 0.245]. Comparing each group's meta-stereotype valence, results revealed that Black Americans felt they were perceived significantly more negatively by Asian Americans than Asian Americans felt they were viewed by Black Americans, $t(234) = 7.049$, $p < .001$, $r = .418$, 95% CI [1.380, 2.451]. Lastly, comparing each group's other-stereotype valence, results revealed that Black Americans were in fact viewed more negatively. Asian Americans reported that their own group viewed Black Americans more negatively than Black Americans reported their own group viewed Asian Americans, $t(234) = -5.402$, $p < .001$, $r = .333$, 95% CI [-2.003, -0.932].

Discussion

The results of the pilot study provided meaningful information about the specific interminority meta-stereotypes Asian and Black Americans have regarding how their own group is viewed by the other group. Results revealed that Black Americans' interminority meta-stereotype seems to focus on the belief that they are seen as both incompetent and immoral, whereas Asian Americans' interminority meta-stereotype seems to focus on the belief that they are seen as high in competence. However, a perusal of the mean proportion of traits Asian Americans listed related to the other meta-stereotype categories (i.e., sociability and status) suggests that Asian American's negative meta-stereotypes may also be influenced by concerns that they are seen as low in sociability (see Table 2). The results suggest then that while Asian Americans' interminority meta-stereotype may be somewhat ambivalent, containing some negative and positive content, and is somewhat positive in overall valence, Black Americans' interminority meta-stereotype contains mostly negative content, which leads to a very negative meta-stereotype. Moreover, although Black Americans' meta-stereotype was negatively exaggerated, the size of the effect was not large and Asian Americans' other-stereotype of Black Americans did prove to be quite negative, suggesting Black Americans' meta-stereotype is not far out of touch with reality. Combined with the fact that Asian Americans' other-stereotype was significantly more negative than Black Americans' other-stereotype, these findings would

suggest that Black Americans face considerable prejudice, of which they are aware, even from other ethnic minority groups.

For Asian Americans, the results of the present research are novel as they point to an ethnic group for whom meta-stereotypes may be somewhat positive and accurate with respect to valence. Past research has found that dominant high-status groups (e.g., White Americans) expect to be viewed negatively and more negatively than they actually are by minority groups (Krueger, 1996). Insofar as the results of the present study generalize to other higher and lower status ethnic groups, they would suggest that, contrary to hypothesis 2, higher status ethnic minority groups may not be particularly concerned with being seen as prejudiced or as having an unfair advantage, and as such, contrary to hypothesis 3, they may not expect to be viewed negatively. Indeed, a perusal of the traits listed in Asian Americans' meta-stereotype revealed few direct references to prejudice. Therefore, if ethnic minority group members' interest in interminority contact and cooperation is related to the positivity of their meta-evaluations, as predicted, Asian Americans may be more interested in such contact and cooperation than are Black Americans.

However, it should be noted that traits (e.g., mean, rude, unkind) categorized under other categories, including low sociability, may also be associated with feelings that one's ingroup is viewed as prejudiced, as these types of traits are part of majority group members' meta-stereotypes of how they are viewed by ethnic minority groups (Vorauer et al., 1998). Thus, Asian Americans' possible concerns that they are viewed as prejudiced may still come out in Study 1, where traits directly related to prejudice are included in the closed-ended measure of morality. Further, despite the novel findings that Asian Americans feel they are viewed somewhat positively overall, it is important to note that the meta-stereotype valence measure used in the pilot study assessed the valence of all traits listed that made up the meta-stereotype. It is entirely possible that while the traits making up the meta-stereotype are seen as somewhat positive on average, Asian Americans may place more weight on negative traits in forming their meta-evaluation of how their group is viewed overall. Specifically, if asked outright how positively they believe their group is seen by Black Americans, Asian Americans' overall meta-evaluation could still be negative if the negative stereotype traits are seen as more informative or important in predicting the outgroup's feelings towards their ingroup. To address this possibility, Studies 1

and 2 assessed overall meta-evaluations of how positively each group believes their own group is seen by the other.

It is also still unclear to what extent ethnic minority group members' meta-stereotypes are differentiated by outgroup—whether groups believe that they are viewed differently by different outgroups. It may be that ethnic minority group members' meta-stereotypes are undifferentiated, whereby they will believe that they are viewed the same by all outgroups. However, if ethnic minority group members' meta-stereotypes differ based on the reference outgroup, this would highlight the importance of understanding meta-stereotypes within specific interethnic relations and distinct from broader societal level stereotypes. As such, in Study 1, I also examined how each group believed they were viewed by White Americans.

A key goal here was to examine whether Asian Americans expected to be viewed similarly by White (higher status outgroup) and Black Americans (lower status outgroup). If Asian Americans expected to be viewed more negatively by White Americans than Black Americans, this might suggest that lower status groups always expect to be viewed most negatively by higher status groups. On the other hand, if Asian Americans expected to be viewed more negatively by Black Americans than White Americans, this would further suggest the importance of understanding meta-evaluations in specific interethnic relations. Further, if Black Americans felt that they are viewed more negatively by Asian Americans than White Americans, this could signify a pattern somewhat akin to horizontal hostility (White & Langer, 1999) in interethnic relations, whereby ethnic minority groups believe that they are viewed most negatively by other ethnic minority groups.

Lastly, the findings of the pilot study are important because I had participants self-identify traits on which they felt their group is judged by the outgroup and indicate how they perceived such traits. This allowed me to assess their meta-stereotypes without imposing my own beliefs. However, as participants in the pilot study were limited as to how many traits they could list, it is important to also examine ethnic minority group members' meta-stereotypes in a more systematic way, having each person rate their perceptions across a broad range of traits and categories including those identified in the pilot study. As such, in Study 1 I adopted this more systematic approach, augmenting existing scales assessing competence, morality and sociability with the most frequently listed unique traits from the pilot study to enhance the representativeness of such scales.

Study 1

The purpose of Study 1 was to build on the results of the pilot study by systematically assessing the content of higher and lower status ethnic minority group members' interminority meta-stereotypes using closed-ended measures and to use a more direct measure of overall meta-evaluations to probe meta-evaluation valence and accuracy. As in the pilot study, I was also interested in whether higher and lower status ethnic minority group members' interminority meta-stereotypes would differ in content or valence. In this study I also addressed the new issue of whether ethnic minority group members' interminority meta-stereotypes differ from their perceptions regarding how they are viewed by the majority group.

In Study 1, my hypotheses about the content of higher and lower status ethnic minority groups members' meta-stereotypes focused on differences in their competence and morality-based meta-stereotypes. I did not make hypotheses related to their sociability meta-stereotypes, nor did I make hypotheses about any of the other categories derived from the results of the pilot study. I did, however, examine differences amongst these other meta-stereotypes in an exploratory fashion to provide insight for future confirmatory research. As such, in Study 1, higher and lower status ethnic minority group members rated how they believe their group is viewed by the majority group (majority meta-stereotype) as well as the other ethnic minority group (interminority meta-stereotype) on trait pairs related to competence, sociability, morality, and status, the latter being derived from the pilot study data. Similarly, they also rated how they believed the ethnic minority outgroup is viewed by members of their ingroup (other-stereotype) on each of the trait pairs.

Participants were also asked to rate how positively they believe their group is viewed overall by the outgroup (meta-evaluation) and how positively their own group views the ethnic minority outgroup overall (other-evaluation). I decided to assess other-stereotypes and other-evaluations in Study 1 by examining participants perceptions of their ingroup's view of the outgroup rather than directly accessing their own views of the outgroup in order to reduce social desirability concerns. However, to ensure that the other-stereotype reflects the actual feelings of group members and not just their perceptions of group norms, in Study 2 I assessed other-evaluation by directly asking participants to rate how they view the outgroup.

In Study 1, I was mainly interested in ethnic minority group members' majority meta-stereotypes as a means to examine how they may differ from their interminority meta-

stereotypes. However, for the sake of consistency, I also asked participants to rate their perceptions of how their group is viewed overall by the majority group and their group's feelings towards the majority group (meta- and other-evaluations). Comparing how each ethnic minority group feels their group is viewed overall by the majority and minority outgroup will help to shed light on the role of status in meta-evaluations. Ethnic minority group members' other-evaluations of the majority group were assessed for consistency and are not reported.

Hypotheses

First, in examining how the content of higher and lower status ethnic minority group members' interminority meta-stereotypes may differ, I hypothesized that:

***H1b:** Lower status ethnic minority group members' competence-based interminority meta-stereotypes would be more negative in valence than would those of the higher status ethnic minority group.*

***H2b:** Higher status ethnic minority group members' morality-based interminority meta-stereotypes would be more negative in valence than would those of the lower status ethnic minority group.*

Although the pilot study did not provide evidence that higher status ethnic minority group members are concerned that they are viewed as prejudiced and immoral, I believed the inclusion of traits directly tapping into prejudice (e.g., prejudiced to tolerant) in the closed-ended measures of Study 1 might more accurately capture this meta-stereotype and provide a better test of my hypotheses.

Next, examining relative differences in the valence of higher and lower status ethnic minority group members' own competence and morality-based interminority meta-stereotypes, I hypothesized that:

***H1c:** Lower status ethnic minority group members' competence-based interminority meta-stereotypes would be more negative than their morality-based interminority meta-stereotypes.*

***H2c:** Higher status ethnic minority group members' morality-based interminority meta-stereotypes would be more negative than their competence-based interminority meta-stereotypes.*

Examining relative differences in how each group believes they are viewed by the minority outgroup and the majority outgroup, I hypothesized that:

H4a: Higher status ethnic minority group members would perceive they are viewed as less moral by the lower status ethnic minority outgroup than they feel they are viewed by the majority group.

H4b: Lower status ethnic minority group members would not differ in how competent they feel they are viewed by the majority group and the higher status ethnic minority outgroup, such that their competence-based interminority meta-stereotypes would not differ from their competence-based majority meta-stereotypes.

Lastly, examining the accuracy of higher and lower status ethnic minority group members' interminority meta-evaluations by comparing their interminority meta-evaluations to the outgroups' other-evaluation (i.e., the outgroup's actual opinion), I hypothesized that:

H3c: Both higher and lower status ethnic minority group members would perceive they are viewed more negatively overall, according to thermometer ratings, by the ethnic minority outgroup than the outgroup actually views them.

Hypothesis 3c overlaps with hypothesis 3b but instead of focusing solely on the accuracy of the average valence of each groups' meta-stereotype traits (3b), hypothesis 3c examines the accuracy of their overall meta-evaluation, which likely reflects not just the average valence of traits making up the meta-stereotype but also the relative importance of each trait.

Method

Participants

I recruited 272 participants (136 Black Americans and 136 Asian Americans) from Mturk utilizing TurkPrime (Litman et al., 2017) to target my study to participants with Black and Asian American ethnic backgrounds ($M_{\text{age}} = 35.76$ years, 58% female). In this study and all subsequent studies, participants who had completed any of the previous studies were excluded from being able to participate. The full sample consisted of 400 participants. However, 35 participants (8.750%) were excluded because they failed to complete multiple dependent measures (i.e., two or more dependent measures), 30 participants (7.500%) were excluded for having indicated an ethnic background other than Black or Asian American, and 63 participants (15.750%) were excluded for inattentive responding as identified by the 33-item Attentive Responding Scale (Maniaci & Rogge, 2014). The sample size was chosen based on a power analysis using G*Power (Faul et al., 2007), which indicated a sample size of 260 participants would provide adequate statistical power (90%), assuming a small to medium effect size ($f = .175$) for the

between-subjects factor of a mixed-design ANOVA and would provide higher power for the within-subjects factor and two-way interaction. Post hoc power analysis conducted using simulations suggests the sample provided somewhat less power (78%) to detect a three-way interaction of the same effect size. Participants completed the 10-minute study in exchange for \$0.75 compensation.

Procedure

Participants were recruited for a study examining people's perceptions of how different groups view each other. Participants began by indicating their consent to participate (see Appendix K) and then as in the pilot study, they read study instructions (see Appendix B) and completed the first half of the Attentive Responding Scale (Maniaci & Rogge, 2014). Participants then provided some basic demographic information (i.e., age, gender, ethnicity, and how long they have lived in the US; see Appendix C). Participants indicated their ethnicity prior to completing the dependent measures to ensure that future questions indicating the participant's own ethnicity as (Black or Asian American) are accurate and to provide a rationale regarding how we know their ethnic background. Ethnicity restrictions were not explicitly listed in the study recruitment information because I wanted the study to appear to apply to any number of groups to reduce demand characteristics.

Next, participants read study instructions meant to alleviate social desirability concerns (see Appendix D). Participants then made trait-based ratings of their meta-stereotypes of how their group is viewed by the majority group (see Appendix L), higher or lower status ethnic minority outgroup (the status of which depended on the status of participants' own group; see Appendix M), and perceptions of how their group views the ethnic minority outgroup and the majority group (other-stereotype; see Appendix N and O). The order in which participants made these meta-stereotype judgements were counterbalanced across participants by evaluation type (other versus meta-evaluation) and reference target (minority outgroup versus majority group).

Participants then rated how they felt their group is viewed overall by the ethnic minority outgroup (see Appendix P) and the majority group (see Appendix Q), and how they believe their group views the ethnic minority outgroup (see Appendix R) and majority group overall (see Appendix S). Once again, these ratings were counterbalanced across participants by evaluation type and reference target. After completing the dependent measures, participants rated their perceptions of the status of their own ethnic group and the ethnic minority outgroup and

provided additional demographic information just as in the pilot study. Next, participants completed the final half of the Attentive Responding Scale (Maniaci & Rogge, 2014). Lastly, participants read a debriefing, which provided them with information about the study and my hypotheses.

Measures

Trait ratings. For each predetermined meta-stereotype category (i.e., competence, sociability, morality), four traits were drawn from research on stereotypes (Fiske et al., 2002; Zou & Cheryan, 2017), group perception (Leach et al., 2007) and meta-stereotypes (Vorauer et al., 1998), and were combined with the two most common non-overlapping traits and qualities listed by participants in the pilot study. When different words were used for the same trait or quality they were combined when determining frequency. The status meta-stereotype category, which was identified by the coders as a fourth meaningful meta-stereotype category, consisted of the four most common traits and qualities listed by participants in the pilot study and two traits consistent with the category label (i.e., low status versus high status and underprivileged versus privileged) to ensure a similar number of items across all categories. The final scale categories each consisted of six trait pairs, rated on a 7-point scale anchored on either end by opposing traits (e.g., competence: unintelligent to intelligent, sociability: unfriendly to friendly, morality: prejudiced to tolerant). The mid-point of the scale was labeled as neither (e.g., neither unfriendly nor friendly). Higher ratings reflected more positive perceptions (i.e., higher competence, morality, sociability and status). See Table 3 for the full list of traits pairs representing each category. Higher and lower status ethnic minority group members rated how they believed their group is viewed by the majority group (i.e., majority meta-stereotype) as well as the other ethnic minority group (interminority meta-stereotype) on each trait pair, and similarly how they believed the ethnic minority outgroup is viewed by their ingroup (other-stereotype) on each of the trait-pairs. Each of the four meta-stereotype category scales showed acceptable reliability in measuring interminority and majority meta-stereotypes as well as interminority and majority other-stereotypes, all Cronbach's α s > .74.

Overall evaluations. Higher and lower status ethnic minority group members' perceptions of how negatively or positively their ingroup is viewed overall by the other ethnic minority group and the majority group (meta-evaluations) and how their group views the other ethnic minority group and the majority group overall (other-evaluations) were assessed using

thermometer ratings (Haddock et al., 1993). The scale ranged from 0 (*Very unfavourable*) to 100 (*Very favourable*).

Table 3

Meta-stereotype Content Items by Category and Valence in Study 1

Meta-stereotype category	Valence	
	Low	High
Morality	prejudiced	tolerant
	immoral	moral
	unfair	fair
	untrustworthy	trustworthy
	aggressive	unaggressive
	law-abiding	criminal
Sociability	unfriendly	friendly
	cold	warm
	unlikeable	likeable
	unkind	kind
	rude	polite
	quiet	outgoing
Competence	incompetent	competent
	unskilled	skilled
	unintelligent	intelligent
	incapable	capable
	lazy	hardworking
	uneducated	educated
Status	dirty	clean
	poor	rich
	low-class	high-class
	submissive	dominant
	low-status	high-status
	underprivileged	privileged

Note. Items were presented with the instructions: “Please indicate how you believe Black (Asian) Americans are viewed by the average Asian (Black American)”

Results

Preliminary Analyses

I once again began by assessing participants' relative perceptions of the status of Black and Asian Americans to confirm that participants indeed saw the groups as differing in status and that these differences were in the expected direction. I utilized a 2 (participant ethnicity: Asian vs. Black) x 2 (target ethnicity: Asian vs. Black) mixed-design Analysis of Variance (ANOVA), where participant ethnicity was a between-subjects factor and target ethnicity was a within-subjects factor. Results revealed only a main effect of target ethnicity, $F(1, 270) = 417.437, p < .001, \eta_p^2 = .638, 95\% \text{ CI } [1.728, 2.096]$ such that Asian Americans ($M = 4.923, SD = 1.040$) were seen to be higher in status than Black Americans ($M = 3.011, SD = 1.273$). Thus, participant perceptions of group status differences were consistent with expectations. Moreover, results suggested that participants' own socio-economic status as assessed by education levels and family income were consistent with perceptions of group status differences. Mann-Whitney U tests indicated that Asian Americans indicated having higher levels of education ($M = 2.066, SD = 0.658$) than Black Americans ($M = 1.809, SD = 0.705$), $U = 20398.5, z = 3.102, p = .002, r = .188$; as well as higher levels of annual household income (Asian: $M = 4.353, SD = 1.468$; Black: $M = 3.816, SD = 1.389$), $U = 20526.5, z = 3.111, p = .002, r = .189$.

Meta-Stereotype Content

In order to test aspects of hypotheses 1, 2, and 4, I assessed differences in higher and lower status ethnic minority group members' meta-stereotype content using a 2 (participant ethnicity: Black vs. Asian) X 2 (meta-stereotype target: majority vs. minority outgroup) X 2 (meta-stereotype category: competence vs. morality) mixed-design ANOVA. Participant ethnicity was a between-subjects factor and meta-stereotype target and meta-stereotype category were within-subject factors. An inspection of the variances suggested some heterogeneity across groups, with the ratio of the largest variance to the smallest across groups equal to 2.544, and an inspection of Q-Q-plots suggested that the dependent variables and residuals showed signs of non-normality. However, similar to Study 1, the results of a robust bootstrapped mixed-design ANOVA on trimmed means conducted following procedures recommended by Wilcox (2017) showed the same effects. Thus, I report the standard mixed-design ANOVA because it is easier to interpret. For simple effects tests, I once again report both the standard parametric tests and bootstrapped 95% confidence intervals of the mean differences based on 10,000 samples

conducted using the *boot* (Canty & Ripley, 2019) and *emmeans* (Lenth, 2020) packages in R (Version 3.6.2).

Inconsistent with my hypotheses (H1, H2 and H4), the three-way interaction between participant ethnicity, meta-stereotype target and meta-stereotype category was only marginally significant, $F(1, 270) = 2.816, p = .094, \eta_p^2 = .010$. However, there was a significant two-way interaction between participant ethnicity and meta-stereotype category, $F(1, 270) = 86.942, p < .001, \eta_p^2 = .244$, as well as a significant two-way interaction between participant ethnicity and stereotype target, $F(1, 270) = 34.677, p < .001, \eta_p^2 = .114$. However, I conducted planned contrasts to directly test my hypotheses. Although I focus here on morality and competence-based meta-stereotypes, Table 4 includes a complete list of means of Black and Asian Americans' interminority and majority meta-stereotype valence by content category, which includes pairwise comparisons across all categories and between targets within each group in an exploratory fashion.

Table 4

Mean (SD) Ratings of Meta-stereotype Valence by Content Category, Meta-stereotype Target and Ethnicity in Study 1

Category	Meta-Stereotypes			
	Asian Americans		Black Americans	
	Minority	Majority	Minority	Majority
Competence	5.907 _a (1.015)	6.085 _a (1.023)	2.949 _a (1.619)	2.539 _b (1.528)
Morality	4.781 _b (1.157)	5.168 _c (1.090)	2.868 _a (1.238)	2.458 _b (1.190)
Sociability	4.082 _c (1.258)	4.463 _b (1.197)	3.591 _c (1.226)	3.335 _c (1.209)
Status	4.728 _b (0.852)	4.461 _b (0.940)	3.000 _a (1.087)	2.675 _b (0.982)

Note. Means in columns and rows within an ethnic group with different subscripts are significantly different at $\alpha = .05$ controlling family-wise error rate using a Bonferroni adjustment.

First, to test hypothesis 1b and 2b, I examined differences between Black and Asian Americans' competence and morality-based interminority meta-stereotypes, which unpacks the two-way interaction between participant ethnicity and meta-stereotype category. Consistent with hypothesis 1b, Black Americans believed that they are viewed as less competent by Asian Americans ($M = 2.949, SD = 1.619$) than Asian Americans believed they are viewed by Black

Americans ($M = 5.907$, $SD = 1.015$), $t(517) = -19.512$, $p < .001$, $r = .651$, 95% CI [-3.269, -2.632]. However, contrary to hypothesis 2b, Asian Americans believed they are viewed as more moral by Black Americans ($M = 4.781$, $SD = 1.157$) than Black Americans believed they are viewed by Asian Americans ($M = 2.868$, $SD = 1.238$), $t(517) = 12.617$, $p < .001$, $r = .485$, 95% CI [1.624, 2.189]. This finding is consistent with Black and Asian Americans' self-generated meta-stereotypes in the pilot study, where relative to Asian Americans, a greater proportion of the traits listed by Black Americans were related to morality.

Next, I examined differences in the relative valence of Asian and Black Americans' own competence- and morality-based interminority meta-stereotypes separately for each minority group. Contrary to hypothesis 1c, I did not find any evidence that Black Americans believed their group is viewed as less competent than moral by Asian Americans, $t(450) = -0.964$, $p = .335$, $r = .042$, 95% CI [-0.248, 0.086]. However, consistent with hypothesis 2c, Asian Americans believed that their group is viewed as less moral than competent by Black Americans, $t(450) = -13.425$, $p < .001$, $r = .508$, 95% CI [-1.313, -0.950]. However, this finding may be driven more by Asian Americans' perceptions that they are seen as highly competent than their perceptions that they are seen as immoral. Results of the pilot study suggested that their self-generated meta-stereotypes were focused on high competence and here both means are above the midpoint of the scale.

Next, I examined differences between Black and Asian Americans' interminority meta-stereotypes and majority meta-stereotypes, examining whether they felt they were viewed differently by the ethnic minority outgroup than White Americans. This allowed me to examine whether group meta-stereotypes are differentiated or whether ethnic minority groups believe they are viewed the same by all outgroups. Consistent with hypothesis 4a, Asian Americans believed their group was viewed as less moral by Black Americans than by White Americans ($M = 5.168$, $SD = 1.090$), $t(411) = -4.117$, $p < .001$, $r = .199$, 95% CI [-0.542, -0.237]. Inconsistent with hypothesis 4b, which stated that Black Americans would not differ in how competent they believed White and Asian Americans viewed their group, Black Americans believed their group was viewed as more competent by Asian Americans than by White Americans ($M = 2.539$, $SD = 1.528$), $t(411) = 4.351$, $p < .001$, $r = .21$, 95% CI [0.179, 0.643]. The two-way interaction between participant ethnicity and meta-stereotype target and the lack of a three-way interaction or two-way interaction between meta-stereotype category and stereotype target suggest that the

target of ethnic minority group members' competence and morality-based meta-stereotypes matters for their valence but not content. Indeed, the simple effects of meta-stereotype target collapsing across category reveal that Asian Americans felt they were viewed less positively (lower in competence and morality combined) by Black Americans than White Americans, $t(270) = -3.400, p < .001, r = .203, 95\% \text{ CI } [-0.422, -0.146]$. In contrast, Black Americans felt they were viewed more positively by Asian Americans than White Americans, $t(270) = 4.927, p < .001, r = .287, 95\% \text{ CI } [0.232, 0.601]$.

Meta-evaluation Accuracy

To test hypothesis 3c, I assessed differences between ethnic minority group members' interminority meta-evaluations and the ethnic minority outgroup's other-evaluations using a 2 (participant ethnicity: Black vs. Asian) X 2 (judgment: meta vs. other) X 2 (target: majority vs. minority outgroup) mixed-design ANOVA. Participant ethnicity was a between-subjects factor and judgment and target were within-subjects factors. See Table 5 for a complete list of means. I focused on simple contrasts between each group's meta-evaluation and the other group's other-evaluation and not the main effects of participant ethnicity and judgment or their interaction because these were not germane to my hypothesis and the simple contrasts are not conditional on a main effect or interaction.

Table 5

Mean (SD) Ratings of Meta-Evaluations Versus Other-Evaluations by Ethnicity in Study 1 and 2

Participant ethnicity	Interminority		Majority	
	Meta-Evaluation	Other-Evaluation	Meta-Evaluation	Other-Evaluation
Study 1				
Black American	38.294 (23.473)	52.309 (20.631)	30.581 (22.327)	37.912 (23.257)
Asian American	56.669 (20.634)	43.574 (21.382)	64.544 (17.776)	67.904 (19.256)
Study 2				
Black American	48.731 (29.158)	72.169 (23.134)	-	-
Asian American	58.592 (21.641)	64.815 (21.928)	-	-

Hypothesis 3c was only partially supported. Specifically, consistent with hypothesis 3c, Black Americans believed their own group was viewed more negatively by Asian Americans ($M = 38.294$, $SD = 23.473$) than it actually was viewed by Asian Americans ($M = 43.574$, $SD = 21.382$), $t(633) = -2.056$, $p = .040$, $r = .081$, 95% CI [-10.321, -0.238], albeit the size of the effect was quite small. However, there was no evidence that Asian Americans' meta-evaluation of how their own group was viewed by Black Americans ($M = 56.669$, $SD = 20.634$) was more negative than Black Americans' evaluation of Asian Americans ($M = 52.309$, $SD = 20.631$), $t(633) = 1.698$, $p = .090$, $r = .067$, 95% CI [-0.681, 9.402]. Indeed, if anything the effect ran in the opposite direction, albeit the difference was only marginally significant, and the effect size was quite small. These findings are consistent with the findings in Study 1, which examined the accuracy of Asian and Black Americans' self-reported valence of meta-stereotype traits. Examining differences between the ethnic minority groups in the valence of their interminority meta-evaluations, Black Americans believed their group was viewed more negatively by Asian Americans than Asian Americans believed their group was viewed by Black Americans, $t(633) = -7.157$, $p < .001$, $r = .274$, 95% CI [-23.417, -13.333].

I also examined differences in Black and Asian Americans' interminority and majority meta-evaluations to see if their perceptions of how positively they are viewed by the ethnic minority outgroup would differ from how they felt they are viewed by White Americans. Like my analyses of Black and Asian Americans' interminority and majority meta-stereotypes, this allowed me to examine whether group meta-evaluations are differentiated. Results revealed that Asian Americans believed they were viewed more negatively by Black Americans than White Americans ($M = 64.544$, $SD = 17.776$), $t(451) = -4.110$, $p < .001$, $r = .19$, 95% CI [-11.640, -4.110]. In contrast, Black Americans' believed they were viewed more negatively by White Americans ($M = 30.581$, $SD = 22.327$) than Asian Americans, $t(451) = -4.026$, $p < .001$, $r = .186$, 95% CI [-11.478, -3.948].

Exploratory Analyses

Lastly, the results of the pilot study would suggest that Asian Americans' belief that they are viewed as more competent than moral by Black Americans is largely driven by Asian Americans' perception that they are viewed as highly competent. However, the fact that they believed they are viewed as more moral by White Americans than Black Americans might suggest that Asian Americans are somewhat concerned that they are viewed as prejudiced or as

somewhat complicit in the discrimination Black Americans face. Determining the degree to which Asian Americans believed they were viewed as prejudiced is further complicated by the fact the morality category contained trait pairs both related to prejudice (i.e., prejudice to tolerant, unfair to fair) and unrelated to prejudice (e.g., criminal to law-abiding). As such, in an effort to explore this possibility, in an exploratory fashion I split the morality category into those traits related to prejudice (i.e., prejudice to tolerant; unfair to fair) and the rest which related to other morality concerns (e.g., untrustworthy to trustworthy; criminal to law-abiding; see Table 3). I then examined differences in Black and Asian Americans' interminority and majority meta-stereotypes regarding prejudice versus immorality, scoring the items so that higher scores reflect perceptions one is viewed as more prejudiced and immoral.

To do this, I conducted a 2 (participant ethnicity: Black vs. Asian) X 2 (meta-stereotype category: prejudice vs. immorality) x 2 (target: majority vs. minority outgroup) mixed-design ANOVA. Participant ethnicity was a between-subjects factor and meta-stereotype category and target were within-subjects factors. I focus here on planned contrasts comparing Asian Americans' perceptions of how prejudiced they believed they were viewed by Black relative to White Americans and how prejudiced relative to how immoral they believed they were viewed by Black Americans. Family-wise error rate was controlled for using a Bonferroni adjustment. Higher scores here indicate perceptions one's group is viewed as more prejudiced and immoral. The results revealed that Asian Americans believed they were viewed as more prejudiced by Black Americans ($M = 3.949$, $SD = 1.500$) than White Americans ($M = 3.268$, $SD = 1.427$), $t(449) = 6.579$, $p < .001$, $r = .297$, 95% CI [0.432, 0.929]. Moreover, Asian Americans believed they were viewed as significantly more prejudiced than immoral ($M = 2.855$, $SD = 1.149$) by Black Americans, $t(468) = 11.138$, $p < .001$, $r = .458$, 95% CI [0.858, 1.330]. This would suggest that, consistent with my prior hypotheses, to some degree Asian Americans do have heightened concerns that they are viewed as prejudiced by Black Americans at least in comparison to how they feel they are viewed by White Americans. Although not reported here, post hoc tests also show that Asian Americans believed they were seen as less sociable and as higher status by Black Americans than White Americans. This is important because some traits which denote low sociability and high status are prejudice-relevant (e.g., mean and dominant) and perhaps this pattern is also associated with Asian Americans' concerns that they are viewed as prejudiced by

Black Americans. However, some caution should be used when interpreting these findings as the analysis was post-hoc. Future research should examine this in a confirmatory manner.

I also examined differences in Black Americans' perceptions of how prejudiced and immoral they believe they are viewed by Asian Americans. The results of the pilot study would suggest that Black Americans' morality meta-stereotypes should focus less on perceptions that they are viewed as prejudiced and more on perceptions they are viewed as aggressive and criminal. This would mean their prejudiced meta-stereotypes should be less negative than their meta-stereotypes focused on the other morality traits. Results supported this: Black Americans believed Asian Americans saw them as less prejudiced ($M = 4.511$, $SD = 1.434$) than immoral ($M = 5.443$, $SD = 1.074$), $t(468) = -9.491$, $p < .001$, $r = .402$, 95% CI [-1.168, -0.696].

Discussion

In Study 1, I evaluated the content of lower and higher status ethnic minority group members' interminority meta-stereotypes and how they differed from these groups' meta-stereotypes of how they are viewed by majority group members. I also examined the accuracy of each groups' meta-evaluations. Examining the content of Black and Asian Americans' meta-stereotypes, results revealed partial support for my hypotheses. Specifically, consistent with hypothesis 1b, Black Americans' competence-based interminority meta-stereotype was more negative than was Asian Americans' same meta-stereotype. However, inconsistent with hypothesis 2b, Asian Americans' morality-based interminority meta-stereotype was not more negative than was Black Americans' same meta-stereotype. In fact, Black Americans' morality-based interminority meta-stereotype was much more negative than Asian Americans' same meta-stereotype—the size of this effect was large. This finding is consistent with the results of the pilot study, which found that Black Americans listed a greater proportion of meta-stereotype traits related to morality than did Asian Americans. This suggests that Black Americans are concerned both with how competent and how moral they are perceived to be, believing that they are viewed quite negatively on both dimensions. In line with this interpretation and contrary to hypothesis 1c, there was no evidence that Black Americans' morality- and competence-based meta-stereotype traits differed in negativity, suggesting that these perceptions are quite similar. Results of the pilot study and post-hoc analysis conducted in the present study would suggest that Black Americans' morality meta-stereotype centres on concerns that they are seen as aggressive and as criminals rather than as prejudiced.

When it comes to Asian Americans' interminority meta-stereotypes, consistent with hypothesis 2c, results revealed that Asian Americans felt they were viewed as much less moral than competent by Black Americans—the size of this effect was large. However, this would seem to result more so from Asian Americans' perception they are seen as high in competence than concerns that they are seen as particularly immoral. However, post-hoc analyses conducted in the present study, which showed that Asian Americans believe that they are seen as more prejudiced by Black Americans than White Americans, suggest that Asian Americans are somewhat concerned with being viewed as prejudiced, an effect somewhat masked by the inclusion of characteristics relevant to criminality in the morality subscale. These results then suggest that Asian Americans may be concerned to some degree that they are perceived by Black Americans as similar to White Americans or perhaps as benefiting from the inequality faced by Black Americans. Further, although exploratory analyses suggest that Asian Americans believe they are viewed most negatively by Black Americans in regard to their group's sociability, which is consistent with descriptive results from the pilot study, some sociability traits (e.g., cold, unfriendly, unkind) are also relevant to prejudice perceptions. Thus, future research, beyond the scope of the present research, should more explicitly examine the possibility that higher status ethnic minority group members may worry that they are viewed as prejudiced by lower status ethnic minority groups, which may be more likely in certain contexts such as those involving interdependence or power differences.

Comparing Black and Asian Americans' interminority and majority meta-stereotypes, results once again partially supported my hypotheses. I hypothesized that Asian Americans would expect to be viewed as less moral by Black than White Americans (H4a), whereas Black Americans would not differ in how competent they felt they were viewed by Asian and White Americans (H4b). Inconsistent with hypothesis 4b, Black Americans believed they were viewed as less competent by White Americans than Asian Americans. However, consistent with hypothesis 4a and as previously mentioned, Asian Americans believed they were viewed as less moral by Black Americans than White Americans. These findings perhaps reflect differences in Black and Asian Americans' meta-evaluations of how they are viewed overall by the majority relative to the ethnic minority outgroup. Specifically, results revealed that Black Americans believed they are viewed more negatively by White Americans than Asian Americans. In contrast, Asian Americans believed they are viewed more negatively by Black Americans than

White Americans. Together, these findings provide evidence that ethnic minority group members' meta-stereotypes and meta-evaluations are differentiated, such that they hold distinct perceptions of how their group is viewed by specific outgroups. This highlights the importance of understanding specific meta-stereotypes when assessing relations between different groups.

Examining the accuracy of ethnic minority group members' interminority meta-stereotypes, consistent with the pilot study, results revealed that Black Americans felt they were viewed more negatively by Asian Americans than Asian Americans indicated feeling towards Black Americans. This finding was consistent with hypothesis 3c, although the size of this effect in Study 1 was quite small. In contrast, if anything, Asian Americans felt they were viewed more positively than they actually were viewed by Black Americans. This finding was inconsistent with hypothesis 3c, although the size of this effect was very small and only marginally significant. These results are important as they suggest that Asian Americans are accurate, if not even somewhat overoptimistic, about how positively they feel they are viewed by Black Americans. Past research has generally found that groups believe they are perceived more negatively than they actually are by outgroups (Krueger, 1996). Yet, the results of the pilot study and Study 1 would suggest that higher status ethnic minority groups may not show this same bias at least in relation to how they feel they are viewed by lower status ethnic minority outgroups. Lastly, results once again provided strong evidence that Black Americans felt they were viewed much more negatively by Asian Americans than Asian Americans felt they were viewed by Black Americans. Indeed, although Black Americans' interminority meta-evaluation was somewhat negatively exaggerated, the small size of this effect and the general negativity of Asian Americans' reports of how their own group feels towards Black Americans would suggest that Black Americans meta-evaluations are grounded in the reality that they are viewed quite negatively.

Having examined the content of ethnic minority group members' interminority meta-stereotypes and the accuracy of their interminority meta-evaluations in the pilot study and Study 1, in Study 2 and 3 I considered the effects of ethnic minority group members' interminority meta-evaluations on outcomes of importance for interminority contact and solidarity. In the remainder of the studies, I focused on the effects of ethnic minority group members' overall interminority meta-evaluations as opposed to their specific interminority meta-stereotypes. Although the content of ethnic minority group members' interminority meta-stereotype is likely

to have important implications for their motivations and behaviour during interactions, I believe it is their overall meta-evaluation—how negatively they believe they are viewed—that will drive the effects on the specific outcomes of interest in these studies. Indeed then, the results of the first two studies have strong implications for Study 2, where I examined the influence each groups' meta-evaluation had on their interest in interminority contact and solidarity. If my hypotheses are correct, Black Americans' extremely negative meta-evaluations are expected to reduce their interest in contact and solidarity with Asian Americans, such that they are likely to be much less interested in contact and solidarity than Asian Americans. However, Black Americans also expressed more positive other-evaluations than did Asian Americans, which could act as a counter-balancing force simultaneously leading them to report more interest in contact and solidarity. I assessed these implications in Study 2. In Study 2 I also assessed whether pluralistic ignorance is evident in higher and lower status ethnic minority groups members' perceptions of an outgroup's interest in contact and solidarity.

Study 2

In Study 2, I built on the results of Study 1 and examined the downstream implications of higher and lower status ethnic minority group members' negative interminority meta-evaluations. Specifically, controlling for people's own attitudes towards the outgroup, I examined the relationship between the valence of higher and lower status ethnic minority group members' meta-evaluations and their interest in interminority contact and solidarity. I hypothesized that:

***H5:** For both higher and lower status ethnic minority group members, the more positive (negative) their meta-evaluations are, the more (less) interested they would be in interminority contact and solidarity.*

Here, I also sought to replicate the findings of Study 1 concerning the accuracy of ethnic minority group members' interminority meta-evaluations, this time assessing participants' own attitudes towards the outgroup rather than their perceptions of how their ingroup views the outgroup (hypothesis 3c). Further, I assessed pluralistic ignorance in ethnic minority group members' perceptions of their own relative to the outgroup's interest in contact and solidarity. First, I examined whether higher and lower status ethnic minority group members perceive themselves as more interested in contact and solidarity than outgroup members are. Then, I examined the accuracy of their perceptions of the outgroup's interest in contact and solidarity by

comparing these judgments against the outgroup's stated interest in contact and solidarity with their ingroup. I hypothesized that:

H7a: Both higher and lower status ethnic minority group members would perceive themselves as more interested in contact and solidarity with the outgroup than they perceived the outgroup is in contact and solidarity with their own group.

H7b: Both higher and lower status ethnic minority group members would perceive members of the other group as less interested in contact and solidarity than the outgroup members actually were.

Method

Participants

I recruited 260 participants (130 Black Americans and 130 Asian Americans) from Mturk utilizing TurkPrime (Litman et al., 2017) to target my study to participants with Black and Asian American ethnic backgrounds ($M_{\text{age}} = 36.035$ years, 58.5% female). The full sample consisted of 342 participants. However, 12 participants (3.509%) were excluded because they failed to complete multiple dependent measures (i.e., two or more dependent measures), 28 participants (8.187 %) were excluded for having indicated an ethnic background other than Black or Asian American, and 42 participants (12.281%) were excluded for inattentive responding as identified by the 33-item Attentive Responding Scale (Maniaci & Rogge, 2014). The sample size was chosen based on a power analysis using G*Power (Faul et al., 2007), which indicated a sample size of 260 participants would provide adequate statistical power (90%), assuming a small to medium effect size ($f = .175$) for the between-subjects factor of a mixed-design ANOVA and greater power for the within-subjects factor and two-way interaction. This sample size would also provide 80% power, assuming the same effect size, to detect a significant relationship between participants' meta-evaluation valence and their interest in contact and solidarity. Participants completed the 10-minute study in exchange for \$0.75 compensation.

Procedure

Participants were recruited for a study examining people's perceptions of how different groups view each other. Participants began by indicating their consent to participate (see Appendix T) and then as in Study 1 and 2, they read study instructions (see Appendix B) and completed the first half of the Attentive Responding Scale (Maniaci & Rogge, 2014). Participants then once again provided basic demographic information (i.e., age, gender, ethnicity

and how long they have lived in the US; see Appendix C) and read study instructions meant to alleviate social desirability concerns (see Appendix D). Next, participants rated how they felt their group is viewed overall by the average ethnic minority outgroup member (Black/Asian American; see Appendix U) and how they view the ethnic minority outgroup overall (see Appendix V).

In contrast to the group-level judgment used in Study 1 to assess other-evaluation, in Study 2 participants indicated their own feelings towards the outgroup. This change allowed me to confirm that the results of Study 1 replicate when other-evaluations are assessed at the individual level, suggesting that across studies the other-evaluation reflects the actual feelings of group members and not just their perceptions of group norms. After this, participants rated how interested they were in contact with members of the ethnic minority outgroup and how interested they were in working together with members of the outgroup to address mutual problems (see Appendix W). Participants also rated how interested they perceived the average ethnic minority outgroup member is in contact and working together with members of the participants' own ingroup (see Appendix X). Similar to Study 1, all ratings examining participants' own attitudes (i.e., other evaluations and own interest in contact and working together) and their perceptions of the outgroup's attitudes (i.e., meta-evaluations and perceptions of the outgroup's interest) were counterbalanced across participants. After completing the dependent measures, participants rated their perceptions of the status of their own ethnic group and the ethnic minority outgroup and provided additional demographic information just as in the previous studies. For exploratory purposes, participants also rated the strength of their ethnic identity (See appendix Y; Crocker et al., 1994; Luhtanen & Crocker, 1992). Next, participants completed the final half of the Attentive Responding Scale (Maniaci & Rogge, 2014). Lastly, participants read a debriefing, which provided them with information about the study and my hypotheses.

Measures

Overall evaluations. I used the same thermometer ratings (Haddock et al., 1993) used in Study 1, to assess higher and lower status ethnic minority group members' interminority meta-evaluations and other-evaluations. However, in Study 2 participants indicated their own overall feelings towards the outgroup rather than their ingroup's overall feelings towards the outgroup and participants indicated the average outgroup member's overall feelings towards their ingroup

rather than the feelings of the outgroup as a collective. Once again, higher ratings represented more positive evaluations.

Interest in contact. Two items adapted from Tropp and Bianchi (2006) assessed higher and lower status ethnic minority group members' own interest in contact with the ethnic minority outgroup (e.g., "To what extent are you interested in interacting with Black/Asian Americans?") and their perceptions of the other group's interest in contact with their group (e.g., "To what extent do you think the average Black/Asian American is interested in interacting with Asian/Black Americans?"). Participants responded on 7-point scales ranging from 1 (*Not at all interested*) to 7 (*Extremely interested*) such that higher scores indicated greater interest.

Interest in working together. Participants similarly rated their interest in working together with members of the ethnic minority outgroup (i.e., "To what extent are you interested in working with Black/Asian Americans to address issues of discrimination and inequality faced by both groups?") and their perceptions of the outgroup's interest in working with their group (e.g., "To what extent do you think the average Black/Asian American is interested in working with Asian/Black Americans to address issues of discrimination and inequality faced by both groups?"). Participants responded on 7-point scales ranging from 1 (*Not at all interested*) to 7 (*Extremely interested*) such that higher scores indicated greater interest.

Results

Preliminary Analyses

I once again began by assessing participants' relative perceptions of the status of Black and Asian Americans to confirm that participants indeed saw the groups as differing in status and that these differences were in the expected direction. I utilized a 2 (participant ethnicity: Asian vs. Black) x 2 (target ethnicity: Asian vs. Black) mixed-design Analysis of Variance (ANOVA), where participant ethnicity is a between-subjects factor and target ethnicity is a within-subjects factor. Results revealed only a main effect of target ethnicity, $F(1, 270) = 245.420, p < .001, \eta_p^2 = .488, 95\% \text{ CI } [1.480, 1.905]$ such that Asian Americans ($M = 4.935, SD = 1.139$) were seen to be higher in status than Black Americans ($M = 3.242, SD = 1.400$). Thus, participant perceptions of group status differences are consistent with expectations. Moreover, results suggested that participants' own socio-economic status as assessed by education levels and family income were consistent with perceptions of group status differences. Mann-Whitney U tests indicated that Asian Americans indicated having higher levels of education ($M = 2.015, SD = 0.647$) than

Black Americans ($M = 1.731$, $SD = 0.656$), $U = 18865$, $z = 3.480$, $p < .001$, $r = .216$; as well as higher levels of annual household income (Asian: $M = 4.362$, $SD = 1.633$; Black: $M = 3.423$, $SD = 1.509$), $U = 19866.5$, $z = 4.862$, $p < .001$, $r = .302$.

Meta-Evaluations and Interest in Contact and Solidarity

In the present study, participants' interest in contact and solidarity were very highly correlated, $r(258) = .743$, $p < .001$, 95% CI [.683, .793], and when analyzed separately the overall pattern of effects were almost identical. Thus, I combined them into a composite measure assessing participants' interest in contact and solidarity. I assessed the effects of higher and lower status ethnic minority group members' meta-evaluations on their interest in interminority contact and solidarity using ordinary least squares multiple regression. I hypothesized that meta-evaluation valence would positively predict higher and lower status ethnic minority group members' interest in interminority contact and solidarity, holding constant the effects of participant ethnicity and other-evaluation valence (H5).

On the first step, interest in contact and solidarity was regressed on participant ethnicity (Asian = 0, Black = 1) and meta-evaluation valence, and on the second step, I added other-evaluation valence. Lastly, on the third step the interactions between participant ethnicity and meta-evaluation valence and participant ethnicity and other-evaluation valence were entered. On the first step, results revealed that ethnic minority group members' meta-evaluation, $b = 0.018$, $t(257) = 5.059$, $p < .001$, $r = .301$, 95% CI [0.011, 0.025] and ethnicity, $b = 0.370$, $t(257) = 1.994$, $p = .047$, $r = .123$, 95% CI [0.005, 0.735], positively predicted participants' interest in interminority contact and solidarity. When holding the effects of ethnicity constant, ethnic minority group members' more positive (negative) meta-evaluations predicted increased (decreased) interest in contact and solidarity. When holding the effects of meta-evaluations constant, Black Americans showed more interest in interminority contact and solidarity than Asian Americans. Contrary to hypothesis 5, on the second step, only other-evaluation, $b = 0.044$, $t(256) = 11.449$, $p < .001$, $r = .582$, 95% CI [0.037, 0.052], predicted ethnic minority group members' interest in contact and solidarity, such that more positive (negative) other-evaluations predicted increased (decreased) interest in contact and solidarity. I did not expect participant ethnicity to interact with meta-evaluation valence or other-evaluation valence in predicting interest in contact and solidarity and results supported this, $b = -0.004$, $t(254) = -0.604$, $p = .546$,

$r = .038$, 95% CI [-0.018, 0.010], and $b = 0.001$, $t(254) = .187$, $p = .852$, $r = .012$, 95% CI [-0.014, 0.017], respectively for the two-way interactions.

However, contrary to hypothesis 5, meta-evaluation valence no longer predicted interest in interminority contact once other-evaluation valence was added to the model. This suggests that how ethnic minority groups believe their own group is viewed by an ethnic minority outgroup (meta-evaluation) may indirectly, not directly, influence their interest in contact by influencing ethnic minority group members' evaluations of the outgroup (other-evaluation). Indeed, ethnic minority group members' meta-evaluations were strongly correlated with their other-evaluations, $r(258) = .473$, $p < .001$, 95% CI [.373, .562].

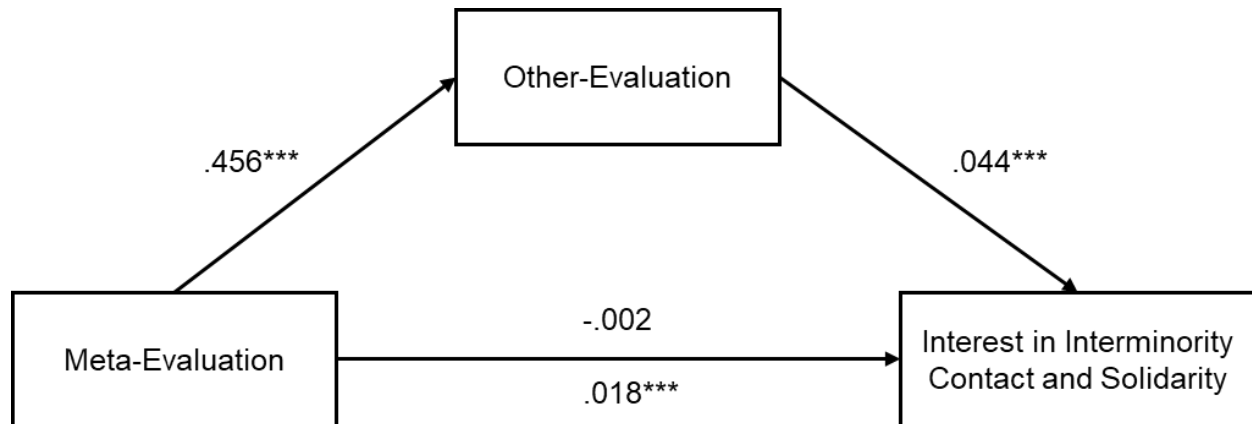
In order to test this possibility, I conducted a bootstrapped mediation analysis with 10,000 bootstrapped samples using Lavaan (Rosseel, 2012). I entered meta-evaluations as the predictor, other-evaluations as the mediator and interest in contact and solidarity as the outcome and controlled for the effects of ethnicity in all paths. Results revealed a significant indirect effect of ethnic minority group members' meta-evaluations on their interest in contact through their other-evaluations, the 95% CI [0.014, 0.027] excluded zero (See Figure 1). As such, the results do not support hypothesis 5. Instead, results suggest that ethnic minority group members' meta-evaluations positively predict their interest in contact through increased other-evaluations. However, as the present data is cross sectional in nature, an alternative mediational model is plausible in which Black and Asian Americans' feelings about the other group (other-evaluations) influence their meta-evaluations, which in turn predict their interest in contact and solidarity. That is, participants' other-evaluations may have indirectly influenced their interest in contact and solidarity through their influence on their meta-evaluations. Similar bootstrap mediation analyses seemed to rule out this interpretation however, as there was no significant indirect effect, 95% CI [-0.006, 0.004].

Meta-Evaluation Accuracy

Seeking to replicate the results of Study 1, I once again assessed hypothesis 3c, examining differences between ethnic minority group members' interminority meta-evaluations and the ethnic minority outgroup's actual view of them using a 2 (participant ethnicity: Black vs. Asian) X 2 (judgment: meta vs. other) mixed-design ANOVA. Participant ethnicity was a between-subjects factor and judgment was a within-subjects factor. See Table 5 for mean meta- and other-evaluations. Results revealed a main effect of judgment, $F(1, 258) = 101.050$, $p < .001$,

Figure 1

Mediation Model from Study 2 of the Indirect Effects of Black and Asian Americans' Meta-evaluations on Interest in Interminority Contact and Solidarity Through Other-evaluations



$\eta_p^2 = .281$, whereby collapsing across group, meta-stereotypes ($M = 53.662$, $SD = 26.098$) were more negative than other-stereotypes ($M = 68.492$, $SD = 22.795$). However, this main effect was qualified by a significant two-way interaction between participant ethnicity and target judgment, $F(1, 258) = 34.039$, $p < .001$, $\eta_p^2 = .117$, which suggests this effect was more pronounced for Black Americans. Similar to Study 1, I focused specifically on simple contrasts between each group's meta-evaluation and the other group's other-evaluation because these are germane to my hypotheses and they are not conditional on a main effect or interaction. However, I also unpacked the two-way interaction further, examining the main effects of ethnicity within each judgement to see if differences between the groups in regard to their meta- and other-evaluations replicated those found in Study 1.

Examining the accuracy of both groups' meta-stereotypes, consistent with Study 1 and hypothesis 3c, Black Americans believed they were viewed more negatively by the average Asian American ($M=48.731$, $SD = 29.158$) than they were actually viewed by Asian Americans ($M = 64.815$, $SD = 21.928$), $t(408) = -5.368$, $p < .001$, $r = .257$, 95% CI [-21.975, -10.194]. However, contradicting the findings of Study 1 but consistent with hypothesis 3c, Asian Americans also believed they were viewed more negatively by Black Americans ($M = 58.592$, $SD = 21.641$) than they were actually viewed by Black Americans ($M = 72.169$, $SD = 23.134$), $t(408) = -4.531$, $p < .001$, $r = .219$, 95% CI [-19.467, -7.686]. Thus, the results of Study 2 only partially replicate the results of Study 1 but do provide evidence in support of hypothesis 3c.

Examining differences in Black and Asian Americans' meta-evaluations, results revealed that Asian Americans believed they were viewed more positively by the outgroup than did Black Americans, $t(408) = 3.291, p = .001, r = .161, 95\% \text{ CI } [3.971, 15.752]$. Examining differences in Black and Asian Americans' other-evaluations, results revealed that Asian Americans felt more negatively towards Black Americans ($M = 64.815, SD = 21.928$) than Black Americans felt towards Asian Americans ($M = 72.169, SD = 23.134$), $t(408) = -2.454, p = .015, r = .121, 95\% \text{ CI } [-13.244, -1.463]$. These results are consistent with the results of study 1.

Pluralistic Ignorance

Once again, as ratings of participants' own interest in contact and solidarity were highly correlated, as were their perceptions of the average outgroup members' interest in contact and solidarity, $r(258) = .824, p < .001, 95\% \text{ CI } [.781, .860]$, I combined participants' own interest in contact and solidarity together as well as combining their perceptions of the outgroup's interest in contact and solidarity together to create two composite measures. I then tested hypothesis 7 assessing pluralistic ignorance in ethnic minority group members' perceptions of their own relative to the outgroup's interest in contact and solidarity using a 2 (participant ethnicity: Black vs. Asian) X 2 (target of judgment: own vs. other) mixed-design ANOVA. Participant ethnicity was a between-subjects factor and target of judgment was a within-subjects factor. See Table 6 for mean ratings of participants' own and average outgroup members' interest in interminority contact and solidarity. Here I expected only a main effect of target of judgment and not an interaction between participant ethnicity and target of judgment. However, results revealed a main effect of target of judgment, $F(1, 258) = 98.153, p < .001, \eta_p^2 = .276$, that was qualified by a significant two-way interaction between participant ethnicity and target judgment, $F(1, 258) = 18.7316, p < .001, \eta_p^2 = .068$. The interaction suggests that contrary to expectations the effects of target of judgment differed between Black and Asian Americans. Regardless, I continued to examine planned contrasts testing my specific hypotheses, which shed light on this interaction.

The results supported hypothesis 7a. Indeed, Asian Americans indicated that they were more interested in contact and solidarity with Black Americans ($M = 4.381, SD = 1.480$) than they believed the average Black American was interested in contact and solidarity with Asian Americans ($M = 3.858, SD = 1.471$), $t(258) = 3.945, p < .001, r = .239, 95\% \text{ CI } [0.262, 0.784]$. Similarly, Black Americans indicated that they were more interested in contact and solidarity with Asian Americans ($M = 4.573, SD = 1.593$) than they believed the average Asian American

was interested in contact and solidarity with Black Americans ($M = 3.238$, $SD = 1.615$), $t(258) = 10.066$, $p < .001$, $r = .531$, 95% CI [1.074, 1.596].

Table 6

Mean (SD) Ratings of Own Interest Versus Perceived Average Outgroup Member's Interest in Contact and Solidarity by Ethnicity in Study 2

Participant ethnicity	Interest in contact and solidarity	
	Own	Other
Black American	4.573 (1.593)	3.238 (1.615)
Asian American	4.381 (1.480)	3.858 (1.471)

The results also supported hypothesis 7b. Indeed, Asian Americans believed the average Black American was less interested in contact and solidarity than Black Americans actually indicated being interested in such contact and solidarity, $t(413) = -3.742$, $p < .001$, $r = .182$, 95% CI [-1.091, -0.340]. Similarly, Black Americans believed the average Asian American was less interested in contact and solidarity than Asian Americans actually indicated being interested in such contact and solidarity, $t(413) = -5.976$, $p < .001$, $r = .284$, 95% CI [-1.518, -0.767]. Given that the effects for Black and Asian Americans were in the same direction, the significant two-way interaction indicates that Black Americans showed greater pluralistic ignorance in contact perceptions than did Asian Americans, a finding that is supported by a perusal of the effect sizes.

Lastly, I also examined differences between Black and Asian Americans' perceptions of the other group's interest in contact and solidarity with their own group and differences between Black and Asian Americans' own interest in contact and solidarity with the other group. Asian Americans had a more positive perception of the outgroup's interest in contact and solidarity than did Black Americans—believing the average outgroup member was more interested in contact and solidarity than did Black Americans, $t(413) = 3.239$, $p = .001$, $r = .159$, 95% CI [0.243, 0.995]. However, Black and Asian Americans did not actually differ in their interest in contact and solidarity with the other group, $t(413) = -1.006$, $p = .315$, $r = .050$, 95% CI [-0.568, 0.183].

Discussion

In Study 2, I assessed the relationship between lower and higher status ethnic minority group members' interminority meta-evaluations and their interest in contact and solidarity.

Results revealed that higher and lower status ethnic minority group members' interminority meta-evaluations were indirectly related to their interest in contact and solidarity mediated by their effects on ethnic minority group members' evaluations of the outgroup. Specifically, the more positive (negative) ethnic minority group members' meta-evaluations were, the more positive (negative) their other-evaluations were and thus the more (less) interested they were in interacting with one another and in working together to solve issues of mutual concern. Contrary to hypothesis 5, ethnic minority group members' interminority meta-evaluations had no direct relationship with their interest in interminority contact and solidarity when the influence of other-evaluations was held constant. However, the results still suggest that ethnic minority group members' meta-evaluations predict their interest in contact and solidarity, albeit indirectly. This suggests that it is important to consider meta-evaluations, other-evaluations and their indirect relationship in predicting ethnic minority group members' interest in contact and solidarity with members of ethnic minority outgroups.

It is important to note that although the mediation model may seem to suggest causality, the present study was cross-sectional and thus I am not able to conclude causality from the results of this study. Beyond the scope of the present research, future research should manipulate ethnic minority group members' meta-evaluations and assess the effects on ethnic minority group members' other-evaluations and interest in interminority contact and solidarity to provide evidence for a causal link. Moreover, in the present study interest in contact and solidarity were strongly correlated and both related similarly to meta-evaluations and other-evaluations. Future research, beyond the scope of the present research, should examine how ethnic minority group members' interest in contact and in working together to address issues of mutual concern may be distinguishable and assess factors that may uniquely contribute to ethnic minority group members' interest in solidarity. While these outcomes are highly related, it is possible that some factors that may increase interest in contact, which could be construed in terms of more superficial interactions (e.g., interacting with an outgroup member in a customer service context), might not increase interest in solidarity, which itself may imply coordination, cooperation and outcome dependence.

In Study 2, results also supported my hypothesis that both lower and higher status ethnic minority group members would show pluralistic ignorance in their perceptions of outgroup members' interest in contact and solidarity (H7). Both Black and Asian Americans believed they

were more interested in contact and solidarity with outgroup members than outgroup members were interested in contact and solidarity with members of their own group. Further, both Black and Asian Americans underestimated outgroup members' interest in interminority contact and solidarity—perceiving the other group as less interested in contact and solidarity than the other group indicated that it was. The latter result mirrored the negative exaggeration in Black and Asian Americans' meta-evaluations evident in Study 2.

These findings would suggest that both lower and higher status ethnic minority group members' intergroup perceptions are generally negatively exaggerated and thus consistent with a pluralistic ignorance account of intergroup perception—exhibiting “ignorance” of the outgroup's actual evaluations and interest in contact and solidarity. However, it is important to note that in the pilot study and Study 1, Asian Americans did not exaggerate how negatively the outgroup viewed their ingroup either in terms of the valence of their self-generated meta-stereotypes (pilot study) or their meta-evaluations (Study 1). The inconsistency between the pilot study and Study 1 on the one hand and Study 2 on the other, in regard to the accuracy of Asian Americans' meta-evaluative concerns, are likely attributable to differences in the assessment of other-evaluations. In the pilot study and Study 1, I assessed people's perceptions of their ingroup's evaluations of the outgroup, whereas in Study 2, I assessed people's own feelings towards the outgroup. Past research finding negative bias in people's meta-stereotypes similarly compared people's meta-stereotypes to outgroup members' own feelings towards the other group (Krueger, 1996). A visual comparison of both Black and Asian Americans' other-evaluations between Study 1 and Study 2 suggests that people indicated feeling more positively toward the outgroup themselves (Study 2) than they felt ingroup members felt toward the outgroup (Study 1). This may suggest that people don't just overestimate the degree to which outgroup members rely on stereotypes (Vorauer & Kumhyr, 2001) but also overestimate the degree to which fellow ingroup members rely on stereotypes in their judgments of outgroups. This may be a representation of illusory superiority (Alicke, 1985), whereby participants expect ingroup members to be more prejudiced than themselves. However, although I took precautions in the present research to reduce social desirability bias through study instructions and the anonymity of online research, I cannot rule out the influence of such a bias on people's reported evaluations of the outgroup and their own interest in contact and solidarity in Study 2. It is possible that these evaluations were inflated by people's motivation to respond in a way that is socially desirable and thus meta-perceptions may

be somewhat more accurate than they appear in Study 2. However, in anonymous contexts such as the present research, I would be hesitant to regard social desirability motivations as completely separate from meaningful individual motivations, such as the internal motivation to respond without prejudice.

Across the pilot study and both studies, Black Americans believed that they were viewed more negatively by outgroups than did Asian Americans. Yet, the results of Study 2 suggested that they do not differ in their interest in interminority contact and in working together to address discrimination and inequality both groups face. This is likely because Black Americans' negative meta-evaluations are offset by their more positive other-evaluations in predicting their interest in contact and solidarity. Indeed, despite the indirect effect of ethnic minority group members' meta-evaluations on their interest in interminority contact and solidarity through their other-evaluations, when holding meta-evaluations constant, there was still a significant positive effect of other-evaluations on ethnic minority group members' interest in such contact and solidarity.

The findings of Study 2 are important for understanding the factors that inhibit contact, solidarity and cooperation between ethnic minority groups in facing issues such as discrimination and inequality in which they share a common interest. However, in Study 2, I focused on attitudes towards contact and solidarity. It is important to also understand the influence of ethnic minority group members' interminority meta-evaluations on behavioural outcomes associated more closely with efforts towards building interminority solidarity and cooperation. This was the focus of Study 3.

Study 3

The purpose of Study 3 was to investigate how ethnic minority group members' negative meta-evaluations activated during exchanges affect their willingness to discuss interminority solidarity. Specifically, I examined how higher and lower status ethnic minority group members' negative meta-evaluations affected their willingness to discuss with members of the other group relative to members of their own group, the need for different ethnic minority groups to work together to solve issues of discrimination and inequality facing both groups. This study also builds on the results of the previous studies by examining the effects of meta-evaluations in an interaction context with a specific outgroup member, instead of assessing perceptions and feelings in regard to a more abstract generalized outgroup member. In order to examine the effects of interminority meta-evaluations on ethnic minority group members' willingness to

discuss interminority solidarity, Study 3 also included an intragroup interaction condition for comparison purposes. Relative to the interminority condition, in the intragroup condition group-based meta-stereotypes should not be active and thus ethnic minority group members' meta-evaluations of how they feel they are viewed by their partner, an ingroup member, should be more positive.

In Study 3, I recruited participants for a study examining social perceptions in first meeting situations. Participants were led to believe they were interacting with someone who had either the same ethnic background as themselves (ingroup member) or someone with a different ethnic minority background (outgroup member). I told participants that they would first exchange some brief personal information, then describe their initial perceptions, engage in a back-and-forth discussion with their partner, and then answer a few final questions.

In the study, I assessed participants' individual-level meta-evaluations of how positively they felt they were viewed by their ostensible partner and other-evaluations of how positively they felt towards their ostensible partner, which differed from the group-level evaluations (i.e., how one's group is viewed by an outgroup) assessed in previous studies. Lastly, I assessed participants' willingness to discuss interminority solidarity with their ostensible partner by giving them some say in deciding which topics they would discuss with their partner. For exploratory purposes, I also assessed their interest in discussing each topic. Specifically, I asked participants to rank-order the discussion topics according to their preference of which they would most like to discuss, ranking preferred topics higher and to rate their interest in discussing each topic. I told participants that the two topics of discussion would be chosen based on both people's rankings of which topics they would like to discuss most—choosing 2 (out of 5) topics ranked highest across both participants. One of the five discussion topics centred on the need for members of different ethnic minority groups to work together to solve issues of prejudice and discrimination facing both groups. The other topics were race neutral topics. The lower ranked the solidarity topic was by a participant the lower their willingness to discuss it. The study also included a few other exploratory measures mentioned in the procedures that will not be discussed.

Hypotheses

Examining the influence of ethnic minority group members' interminority meta-evaluations on their desire to discuss interminority solidarity with an ingroup relative to an outgroup member, I hypothesized that:

H3d: Both higher and lower status ethnic minority group members would believe they were viewed more negatively by an outgroup interaction partner than an ingroup partner.

H6a: Both higher and lower status ethnic minority group members would rank their preference for discussing interminority solidarity lower when they believed they were interacting with an ethnic minority outgroup member relative to an ingroup member.

H6b: Participant's avoidance of discussing interminority solidarity during interminority relative to intragroup exchanges would be mediated by negative meta-evaluations.

Method

Participants

I recruited 492 participants (246 Black Americans and 246 Asian Americans) from Mturk utilizing TurkPrime (Litman et al., 2017) to target my study to participants with Black and Asian American ethnic backgrounds ($M_{\text{age}} = 33.593$, 61.2% Female). The full sample consisted of 822 participants. However, 159 participants (19.343%) were excluded because they failed to complete multiple dependent measures (i.e., two or more dependent measures), 66 participants (8.029%) were excluded for having indicated an ethnic background other than Black or Asian American, 1 participant was excluded because they indicated they were sure the other person was not real, and 104 participants (12.652%) were excluded for inattentive responding as identified by the 33-item Attentive Responding Scale (Maniaci & Rogge, 2014). Participants completed the 15-minute study in exchange for \$2.50 compensation. The sample size was chosen based on a power analysis using G*Power (Faul et al., 2007), which indicated a sample size of 492 participants would provide adequate statistical power (90%), assuming a small to medium effect size ($f = .185$) for the main effects and two-way interaction of an ANCOVA and greater power for the between-subjects factor, within-subjects factor and two-way interaction of a mixed-design ANOVA.

Procedure

Participants were recruited for a study examining social perceptions in first meeting situations. Participants began by indicating their consent to participate (see Appendix Z). Next,

as in Study 1 and 2, they read study instructions (see Appendix B) and complete the first half of the Attentive Responding Scale (Maniaci & Rogge, 2014). After this, participants read instructions describing the study and what to expect (see Appendix AA). Participants then provided personal information they believed would be shared with their ostensible partner (see Appendix BB). Participants ostensibly exchanged information on their age, ethnicity and positive and negative personal qualities. Once participants had provided this information, they were shown a waiting screen where they were told to wait patiently while we connected them with their partner (participants waited 30 seconds; see Appendix CC). Once the ostensible connection had been made with the partner, participants exchanged personal information with their ostensible partner. Their ostensible partner's sheet (see Appendix DD) indicated that they had the same gender and either the same ethnic background (ingroup member) or a Black/Asian ethnic minority background (outgroup member). Partner's responses to the personal qualities questions were consistent with typical responses to these questions in past studies. After exchanging personal information, participants then rated how they felt they were viewed overall by their partner (individual-level meta-evaluation; see Appendix EE) and how they felt about their partner (individual-level other-evaluation; see Appendix FF). Similar to previous studies, all ratings examining participants' own attitudes and their perceptions of their partner's attitudes were counterbalanced across participants. After this, participants rated their interest in discussing each of the topics with their partner, with all topics presented on the same page (See appendix GG). This measure, which focused on attitudes and not behaviour (i.e., participants were not led to believe these ratings would decide which topics were discussed), was included for exploratory purposes only as the focus of study 3 was on behaviour.³ Next, participants ranked the discussion topics according to their preference of topics they wanted to discuss with their partner from highest to lowest (see Appendix HH). Participants were told that those topics ranked the highest across both participants would be chosen. The initial rank of the topics was randomized across participants. After completing the dependent measures, participants were told there was just a few more measures to complete before the back-and-forth discussion and then participants provided their initial impressions of their partner in the study in an open format, which was used to assess participants' suspicion that their partner was not real (see Appendix II). Participants then provided their opinions on each of the issues that were subject for discussion and assured their partner would not see their opinions (see Appendix JJ). Next, participants rated their

perceptions of the status of their own ethnic group and the ethnic minority outgroup and provided additional demographic information just as in previous studies. As in study 2, participants also rated the strength of their ethnic identity (See appendix Y). After these measures participants completed the final half of the Attentive Responding Scale (Maniaci & Rogge, 2014). Participants then read a debriefing, which provided them with information about the study and my hypotheses. No actual interaction occurred.

Measures

Overall evaluations. I used the same thermometer ratings (Haddock et al., 1993) used in Studies 1 and 2 to assess higher and lower status ethnic minority group members' individual meta-evaluations and other-evaluations, this time having them make their judgments according to how they believed they personally were viewed by their ostensible partner and how they personally viewed their ostensible partner.

Willingness to discuss interminority solidarity. Participants rank ordered five possible discussion topics according to their preference for discussing each one during the ostensible discussion (1 = most like to discuss to 5 = least like to discuss). The ranks were reverse scored such that a lower rank (e.g., 1) represents a lower willingness to discuss a particular topic. Example topics from which they could choose included, whether members of different ethnic minority groups should work together to solve issues of discrimination and inequality, whether there should be stronger restrictions on corporate donations to political parties and candidates, and whether stronger restrictions should be imposed on industry and corporations to counter climate change (See Appendix HH for complete list).

Results

Preliminary Results

I once again began by assessing participants' relative perceptions of the status of Black and Asian Americans to confirm that participants indeed saw the groups as differing in status and that these differences were in the expected direction. I utilized a 2 (participant ethnicity: Asian vs. Black) x 2 (target ethnicity: Asian vs. Black) mixed-design Analysis of Variance (ANOVA), where participant ethnicity is a between-subjects factor and target ethnicity is a within-subjects factor. Results revealed a main effect of target ethnicity, $F(1, 490) = 368.250, p < .001, \eta_p^2 = .429, 95\% \text{ CI } [1.398, 1.716]$ such that Asian Americans ($M = 4.898, SD = 1.217$) were seen to be higher in status than Black Americans ($M = 3.341, SD = 1.447$). There was also a main effect of

participant ethnicity, $F(1, 490) = 6.114, p = .014, \eta_p^2 = .012, 95\% \text{ CI } [-0.394, -0.045]$ such that collapsing across target ethnicity, Black Americans' status ratings ($M = 4.230, SD = 1.649$) were higher than Asian Americans' status ratings ($M = 4.010, SD = 1.431$). Thus, participant perceptions of group status differences are consistent with expectations. Moreover, results suggested that participants' own socio-economic status as assessed by education levels and family income were consistent with perceptions of group status differences. Mann-Whitney U tests indicated that Asian Americans indicated having higher levels of education ($M = 1.988, SD = 0.642$) than Black Americans ($M = 1.760, SD = 0.685$), $U = 66314, z = 3.853, p < .001, r = .174$; as well as higher levels of annual household income (Asian: $M = 4.268, SD = 1.644$; Black: $M = 3.362, SD = 1.356$), $U = 70440, z = 6.325, p < .001, r = .285$.

Willingness to Discuss Interminority Solidarity

I tested hypothesis 6a assessing higher and lower status ethnic minority group members' relative willingness to discussing interminority solidarity with an ingroup versus a member of the other ethnic minority group using a 2 (participant ethnicity: Black vs. Asian) X 2 (partner ethnicity: Black vs. Asian) ANCOVA. Participant ethnicity and partner ethnicity were between-subjects factors. To be consistent with my planned mediation analysis, participants' own evaluation of the other group was included as a covariate to control for the effects of their intergroup attitudes. However, the pattern of results remains the same if other-evaluations is not included as a covariate. There was a main effect of ethnicity, $F(1, 487) = 10.423, p < .001, \eta_p^2 = .021$. However, contrary to hypothesis 6a, this main effect was qualified by a significant two-way interaction between participant ethnicity and partner ethnicity, $F(1, 487) = 5.929, p = .015, \eta_p^2 = .012$ (see Table 7).

Table 7

Estimated Mean (SE) Ratings of Willingness to Discuss Interminority Solidarity by Participant Ethnicity and Partner Ethnicity in Study 3

Participant ethnicity	Partner	
	Ingroup	Outgroup
Black American	4.045 (.117)	3.646 (.119)
Asian American	3.375 (.118)	3.553 (.118)

Examining simple effects, consistent with hypothesis 6a, Black Americans were more willing to discuss interminority solidarity—ranking that topic higher—with an ingroup member ($M = 4.045$, $SE = 0.117$) than an outgroup member ($M = 3.646$, $SE = 0.117$), $t(487) = 2.383$, $p = .018$, $\eta_p^2 = .012$, 95% CI [0.070, 0.728]. However, contrary to hypothesis 6a, there was no evidence that Asian Americans' interest in discussing interminority solidarity differed when interacting with an ingroup member ($M = 3.375$, $SE = 0.118$) relative to an outgroup member ($M = 3.553$, $SE = 0.118$), $t(487) = -1.064$, $p = .288$, $\eta_p^2 = .002$, 95% CI [-0.508, 0.151]. Decomposing the interaction the other way, Asian Americans were less interested in discussing interminority solidarity with an ingroup member than were Black Americans, $t(487) = -4.020$, $p < .001$, $\eta_p^2 = .032$, 95% CI [-0.998, -0.343]. There was no evidence that Black and Asian Americans differed in their interest in discussing interminority solidarity with an outgroup member, $t(487) = -0.555$, $p = .579$, $\eta_p^2 = .001$, 95% CI [-0.424, 0.237]. As such, Hypothesis 6a was only partially supported, only Black Americans differed in their interest to discuss interminority solidarity with ingroup relative to outgroup members.

Meta-Evaluation Valence

Next, I tested hypothesis 3d by assessing the effects of partner ethnicity on participants' meta-evaluation valence using a 2 (participant ethnicity: Black vs. Asian) X 2 (partner ethnicity: Black vs. Asian) ANCOVA. Participant ethnicity and partner ethnicity were between-subjects factors. Once again, to be consistent with my planned mediation analysis, participants' own evaluation of the other group was included as a covariate. I hypothesized that ethnic minority group members' meta-evaluations of how they were viewed by their partner would more negative when their partner was an outgroup member than when their partner was an ingroup member (H3d). However, contrary to Hypothesis 3d, there was no main effect of partner ethnicity on meta-evaluations, $F(1, 487) = 1.637$, $p = .201$, $\eta_p^2 = .003$. Indeed, the only effect was a main effect of other-evaluation valence, whereby, those who felt more positively towards their partner also felt they were viewed more positively, $F(1, 487) = 231.992$, $p < .001$, $\eta_p^2 = .323$, 95% CI [0.531, 0.689]. When other-evaluation valence was not included as a covariate there were no significant effects. As such, there was no evidence that either Black or Asian Americans' meta-evaluations of how they were viewed by their partner were more negative when their partner was an outgroup member than when their partner was an ingroup member (see Table 8).

Table 8

Estimated Mean (SE) Meta-evaluation Ratings by Participant Ethnicity and Partner Ethnicity in Study 3

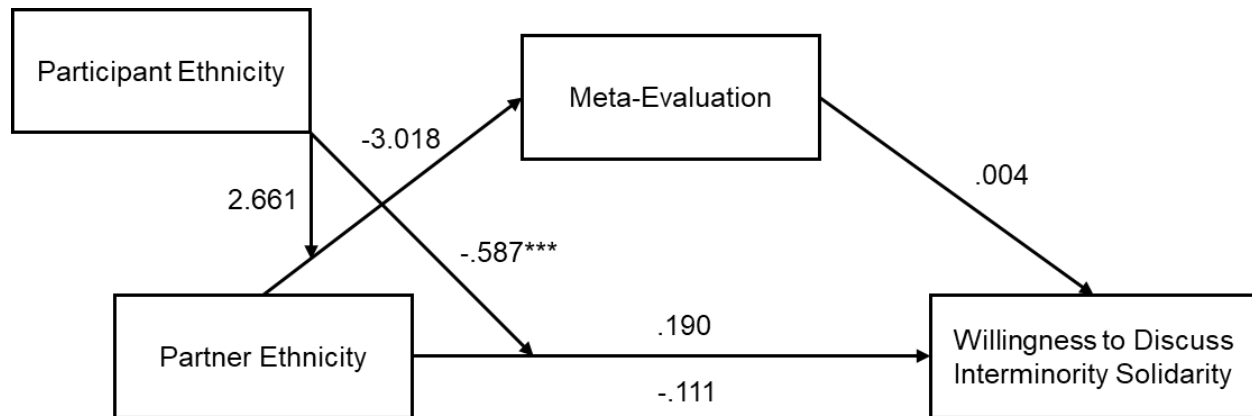
Participant ethnicity	Partner	
	Ingroup	Outgroup
Black American	66.358 (1.307)	66.001 (1.329)
Asian American	66.172 (1.319)	63.154 (1.319)

Mediation by Meta-Evaluation Valence

I had hypothesized that meta-evaluation valence would mediate the effects of partner ethnicity on both Black and Asian Americans' interest in discussing interminority solidarity (H6b). However, such effects of partner ethnicity were only evident for Black Americans. It also seemed unlikely meta-evaluation valence would mediate the observed relationship for Black Americans as I did not find a significant effect of partner ethnicity or a two-way interaction between participant ethnicity and partner ethnicity on meta-evaluation valence. Further, participants' meta-evaluation valence and their willingness to discuss interminority solidarity were only marginally correlated, $r(490) = .079$, $p = .079$, 95% CI [-0.009, 0.166], and the size of this correlation was very small. Regardless, I examined the conditional indirect effect of partner ethnicity on interest in discussing solidarity through meta-evaluations as moderated by participant ethnicity (i.e., conditional indirect effects for Black and Asian Americans). Partner ethnicity was entered as the predictor, other-evaluation was entered as a covariate and meta-evaluation valence was entered as the mediator in a model predicting willingness to discuss interminority solidarity. Participant ethnicity was entered as a moderator of the effects of partner ethnicity on both the mediator and the dependent variable. I assessed the conditional indirect effects at each level of participant ethnicity (for Black and Asian Americans) by computing 95% bootstrapped confidence intervals around the indirect effects (10,000 bootstrapped samples) using the Lavaan package (Rosseel, 2012) in R (see Figure 2). Contrary to hypothesis 6b, I found no evidence of mediation by meta-evaluation valence for either Black Americans (95% CI [-0.034, 0.013]), or Asian Americans (95% CI[-0.067, 0.008]) as the 95% confidence intervals included 0.

Figure 2

Mediation model from Study 3 of the conditional indirect effects of partner ethnicity for Black and Asian Americans on willingness to discuss interminority solidarity through meta-evaluations



Discussion

In Study 3, I examined whether ethnic minority group members would be less willing to discuss interminority solidarity with an ethnic minority outgroup member than with a member of their own group during an ostensible interaction. Moreover, I examined whether any differences in ethnic minority group members' willingness to discuss interminority solidarity with an ingroup relative to an outgroup member could be explained by their perceptions they were viewed more negatively by an outgroup than an ingroup interaction partner.

The results of Study 3 provided only partial support for my hypotheses. Specifically, Black but not Asian Americans showed decreased willingness to discuss interminority solidarity—ranking that topic lower—with an outgroup relative to an ingroup interaction partner, which only partially supported hypothesis 6a. Further, Black and Asian Americans did not differ in their willingness to discuss interminority solidarity with an outgroup partner. Instead, Asian Americans were less willing to discuss interminority solidarity with an ingroup partner than were Black Americans. This was an unexpected finding. However, given the negative valence of Asian Americans' perceptions of how their ingroup viewed Black Americans (i.e., other-evaluations and other-stereotype valence) reported in the pilot study and Studies 1, Asian Americans may have been concerned fellow ingroup members would be equally disinterested in discussing interminority solidarity as outgroup members would be. If Asian Americans believe their group holds negative attitudes and stereotypes of ethnic minority outgroups, in this case

Black Americans, they may perceive ingroup members as disinterested in interminority solidarity. It is important to note that in Study 2, Asian Americans indicated being more interested in contact and solidarity with Black Americans than they believed the average Black American was interested in such contact and solidarity with their own group. However, in Study 2 I assessed participants' own interest in contact and solidarity and not their perceptions of fellow ingroup members' interest in such contact and solidarity, which may have been lower. Indeed, as previously mentioned, a visual inspection of means suggests that other-evaluations were somewhat higher in Study 2, where individuals listed their own feelings towards the outgroup, than they were in Study 1, where participants listed their perceptions of how their own group views the outgroup. Future research should examine differences in people's own interest in interminority solidarity and their perceptions of fellow ingroup members' interest in such solidarity, and how the latter may affect their willingness to seek discussions of interminority solidarity with ingroup members.

Also contrary to hypothesis 6b, Black Americans' decreased willingness to discuss interminority solidarity with an outgroup relative to an ingroup partner was not explained by relative differences in how they thought they were viewed by an outgroup relative to ingroup member (individual-level meta-evaluations). In fact, neither Black nor Asian Americans differed in how positively they thought they were viewed by outgroup relative to ingroup interaction partners, which was inconsistent with hypothesis 3d. This finding is unexpected given that both Black and Asian Americans' interminority meta-evaluations contained some negative content and particularly surprising for Black Americans who indicated feeling their group was viewed quite negatively by Asian Americans in the first three studies. In Study 3, it appears Black Americans' negative group-level meta-evaluations (i.e., how their own group is viewed by outgroup members) did not translate into more negative individual-level meta-evaluations (i.e., how they felt they themselves were viewed by a specific outgroup member).

One possible explanation for the lack of differences in how Black and Asian Americans thought they were viewed by ingroup relative to outgroup interaction partners might be that participants read information about their ostensible partner that was based on previously collected common responses to the questions, perhaps making their ostensible partners seem like an average person, regardless of ethnicity. Thus, many of the participants in the study may have felt somewhat similar to their outgroup partner, feeling that those same characteristics (e.g.,

“procrastinator” and “not always on time for things”) also applied to them, which may have resulted in decreased feelings they were being judged negatively by their outgroup partner. Also, due to the expected online nature of the interaction which was described as a “back-and-forth discussion via an online text-based chat application” and the somewhat subtle communication of ethnicity (i.e., a checkbox on screen), participants may not have anticipated they would be judged based on their ethnicity. It seems plausible that participants’ expectations they would be judged according to their ethnicity may have been higher if they expected to have a face-to-face interaction, where they could see and be seen by their partner, even if that interaction took place online.

Another possibility is that by sharing individuating information about their own positive and negative qualities, Black and Asian Americans may have felt it was unlikely they were being judged according to their ethnicity and stereotypes. Indeed, when exchanging personal information participants were provided with enough space to share fairly rich information about themselves if they chose to do so. Research suggests that individuating information, particularly when it is highly diagnostic, can reduce stereotyping (e.g., Rubinstein et al., 2018). It is therefore possible that when people provide information to outgroup members, which they believe describes who they are as an individual, they may believe it is less likely they will be judged according to stereotypes. Past research has found people’s expectation they will be judged according to stereotypes is associated with their perceptions that is not only possible but likely others will rely on stereotypes (Wout et al., 2009). In this regard, participants’ perceptions of how likely it was their outgroup partner was judging them according to meta-stereotypes could have also been moderated by participants’ level of prejudice, which I did not assess. Past research has found that during intergroup interactions, higher prejudice majority group members believe they are viewed according to meta-stereotypes, whereas lower prejudice majority group members, perhaps believing their tolerant attitudes show through, believe they are viewed as different from the meta-stereotypes (Vorauer & Kumhyr, 2001; Vorauer et al., 1998). If this was the case here, it may be that I was unable to detect differences in ethnic minority group members’ individual-level meta-evaluations when they were interacting with an outgroup, relative to ingroup member, because it was only high prejudice individuals who believed they were viewed according to meta-stereotypes and thus viewed more negatively by outgroup members.

Despite some hypotheses not being supported, Study 3 does show that members of some ethnic minority groups, specifically Black Americans, may show less interest in discussing interminority solidarity with outgroup members than with ingroup members. However, more research is needed to understand why Asian Americans did not show this same bias and to understand the underlying processes at play as Black Americans' individual-level meta-evaluations did mediate the effect as I hypothesized.

General Discussion

Across the pilot study and Studies 1 to 3, the present research provides insight into the content, valence, accuracy, and specificity of ethnic minority group members' interminority meta-stereotypes and meta-evaluations and how they may be influenced by status differences between the ethnic minority groups. The present research illuminates the role of ethnic minority group members' interminority meta-evaluations in predicting their interest in contact with ethnic minority outgroups and in working together in solidarity to address issues of discrimination and inequality both groups face. Further, the present research examined pluralistic ignorance in ethnic minority group members' perceptions of an ethnic minority outgroup's interest in contact and solidarity relative to their own. The data suggested that higher and lower status ethnic minority group members' meta-stereotypes of how they are viewed by the other group differ in content, valence, and their overall accuracy. Further, ethnic minority group members' meta-stereotypes and meta-evaluations showed specificity—differing in content and valence across different outgroups. These results point to the relational quality of meta-stereotypes and meta-evaluations.

In considering the findings of the present research, I will begin by discussing the content and valence of both higher and lower status ethnic minority group members' interminority meta-stereotypes and meta-evaluations, and the specificity of these perceptions relative to how both groups believe they are viewed by White majority group members. Then, I will discuss the pluralistic ignorance ethnic minority group members exhibit in their perceptions of their own interest in contact and solidarity relative to the average ethnic minority outgroup member. Lastly, I will turn to discussing outcomes associated with ethnic minority group members' meta-evaluations, namely their interest in interminority contact and solidarity and their willingness to discuss interminority solidarity.

Asian Americans' Meta-stereotypes and the Lack of Negativity Bias

In thinking about the content, valence and accuracy of ethnic minority group members' interminority meta-stereotypes and meta-evaluations, the results of the present research suggest many dissimilarities across groups that differ in status. As a higher status ethnic minority group, Asian Americans' negative interminority meta-stereotypes focused on perceptions that their group is seen to be unsociable, and to a lesser degree as somewhat prejudiced. Pairwise comparisons across meta-stereotype content categories in Study 1 (see Table 4) suggested Asian Americans felt their group was viewed most negatively by Black Americans in regard to their group's sociability. Further, exploratory analyses in Study 1 suggested that, compared to how they felt they were viewed by White Americans, Asian Americans showed increased concerns Black Americans viewed them as prejudiced. Asian Americans' positive meta-stereotypes focused on their high competence. Specifically, in the pilot study, Asian Americans listed more high competence related traits than any other category (see Table 2) and in Study 1, their competence-based meta-stereotypes were more positive than their other meta-stereotypes (see Table 4).

The ambivalence in Asian Americans' meta-stereotypes was also represented in their overall meta-evaluation valence, which contrary to hypothesis 3, was somewhat positive. The positivity of Asian Americans' interminority meta-evaluations was perhaps due to the fact that Asian Americans' self-generated meta-stereotypes examined in the pilot study seemed to focus most on perceptions they are seen as high in competence—making up the largest proportion of their listed traits. Interestingly, contrary to hypothesis 3 regarding negativity bias in interminority meta-evaluations, Asian Americans' meta-stereotype and meta-evaluation valence were found to be generally accurate in the pilot study and Study 1. Notably, however, in Study 2 where Black Americans' self-reported attitudes towards Asian Americans were more positive, Asian Americans did show evidence of negatively exaggerated meta-evaluations. The results of Study 2 are consistent with past research, which similarly assessed individuals' own attitudes toward the outgroup, and found that group members believe they are perceived more negatively than they actually are by outgroup members (Krueger, 1996). Thus, inconsistencies in Asian Americans' meta-evaluation accuracy across studies within the present research may be due to differences in measurement and more research is needed to examine possible explanations for the observed differences. It is unclear what role social desirability concerns may have played in Study 2 in leading to Black Americans' higher other-evaluations and thus Asian Americans'

negatively exaggerated meta-evaluations. Further, it is unclear whether ethnic minority group members might perceive their ingroup's attitudes towards ethnic minority outgroups (Study 1) to be more negative than their own (Study 2). It is also possible that people view outgroups more negatively than they view individual members of the outgroup. In the pilot study and Study 1, I assessed ethnic minority group members' perceptions of how their ingroup views the outgroup (i.e., Black or Asian Americans), whereas in Study 2, I assessed how they viewed the average Black or Asian American. Any of these explanations could help account for the observed difference in Asian Americans' meta-evaluation accuracy. Regardless, the findings of the pilot study and Study 1 are novel and are worth further investigation. If these group-level ratings were less influenced by social desirability concerns and reflected people's true attitudes towards the outgroup, they would suggest that higher status ethnic minority groups may not show this same bias, at least in relation to how they feel they are viewed by lower status ethnic minority outgroups, and would highlight the role of status in ethnic minority group members' interminority meta-stereotypes. Further, these results would suggest that an intervention that describes meta-stereotypes as negatively exaggerated and focuses on improving the positivity of such perceptions would be inappropriate if targeted towards Asian Americans. In contrast, this might be appropriate and beneficial if directed towards Black Americans.

Black Americans' Meta-stereotypes and Presence of Negativity Bias

In contrast to Asian Americans' meta-stereotypes, Black Americans' meta-stereotypes seemed to focus more specifically on negative perceptions that their group is viewed as both low in competence and morality. I had hypothesized that Black Americans' meta-stereotypes would focus more on concerns that they were viewed as low in competence than low in morality (H1). However, across the pilot study and Study 1, there was no evidence that Black Americans' competence and morality perceptions differed in their importance to the meta-stereotype (frequency of being listed in pilot study) or valence (Study 1). Results of the pilot study suggest their morality concerns may be focused on their perceptions they are seen as aggressive or criminal. This is likely to contribute to Black Americans' quite negative meta-evaluation of how their group is viewed overall by Asian Americans. Indeed, consistent with hypothesis 3 regarding negativity bias in interminority meta-evaluations, Black Americans' meta-stereotype and meta-evaluation valence were negative and negatively exaggerated. However, although their meta-evaluations were negatively exaggerated, the size of this effect was small, and evidence

suggested that Asian Americans' perception of Black Americans (other-stereotype) was indeed negative. As such, consistent with past research on perceived public regard and collective self-esteem (Bikman, 2011; Crocker et al., 1994), the present study provides further evidence that lower status ethnic minority group members perceive that they are viewed particularly negatively. The present research extends this from perceptions of how one's ingroup is viewed by others in general or by White majority group members to specific perceptions of how lower status ethnic minority group members perceive they are viewed by higher status ethnic minority outgroups. Also, the findings of the present research highlight the importance of assessing morality concerns as separate from sociability (often characterized together as warmth) when examining meta-stereotypes, in particular for lower status groups, as morality concerns proved to be quite important to Black Americans' meta-stereotypes and quite negative.

The Relational Nature of Meta-Stereotypes

In thinking about the specificity of ethnic minority group members' meta-stereotypes and meta-evaluations, the present research highlights the importance of understanding meta-evaluative concerns grounded in specific relationships separate from broader societal stereotypes. Ethnic minority group members do not expect to be viewed the same by all outgroups even if the general pattern of their evaluative concerns (e.g., Black Americans' perception they are seen as incompetent) are similar across groups. In Study 2, Black Americans believed they were viewed more negatively overall and as less competent by White Americans than Asian Americans. The latter finding is contrary to my hypothesis that Black Americans would not differ in how competent they thought they were viewed by White and Asian Americans (H4b). In contrast, Asian Americans believed they were viewed more negatively overall and as more prejudiced by Black Americans than White Americans. Although the evidence seemed to suggest that Asian Americans' interminority meta-stereotypes focused on how unsociable and competent they are perceived to be by Black Americans, when comparing their interminority meta-stereotypes with their meta-stereotypes of how they are viewed by the White majority group, Asian Americans showed increased concerns that they are viewed as prejudiced. This finding is compatible with my broader hypothesis and theorizing that Asian Americans would believe they are viewed as more immoral by Black than White Americans (H4a), because they are concerned that they are viewed as prejudiced by Black Americans. This may highlight the importance of considering prejudice concerns when examining interethnic

relations between ethnic minority groups and not just majority-minority relations, especially when considering the meta-stereotypes of members of higher status ethnic minority groups. However, further confirmatory research is needed to substantiate these findings and further illuminate Asian Americans' possible concerns that they are perceived by Black Americans as prejudiced and possibly benefiting from the inequality faced by Black Americans.

Overall then, the present research suggests that higher and lower status ethnic minority group members' interminority meta-stereotypes and meta-evaluations differ in valence and content and they differ from how each group believes they are viewed by the majority group. Although the specific pattern of their interminority meta-stereotype concerns differed somewhat from my hypotheses, the findings support the theory that such concerns are a function of status differences between the groups. Unexpectedly, the present research also finds some evidence to suggest that Asian Americans may not show the same negative bias as Black Americans regarding how they believe they are viewed by other ethnic minority groups. However, meta-evaluations are not the only intergroup perception on which ethnic minority group members may show bias. We also examined both groups' perceptions surrounding their own relative to outgroup members' interest in interminority contact and solidarity.

Pluralistic Ignorance in Perceptions of Outgroup's Interest in Contact and Solidarity

Supporting hypothesis 7, both Black and Asian Americans showed pluralistic ignorance in their perceptions of the outgroup's interest in contact and solidarity relative to their own interest. In Study 2, consistent with hypothesis 7a, both Black and Asian Americans felt they were more interested in contact and solidarity than was the average ethnic minority outgroup member. Further, consistent with hypothesis 7b, both Black and Asian Americans believed the average outgroup member was less interested in contact and solidarity than they actually were. These findings are important because past research suggests that pluralistic ignorance in people's perceptions of why ingroup relative to outgroup members fail to initiate intergroup contact negatively impacts their own intergroup contact (Shelton & Richeson, 2005). As such, pluralistic ignorance in people's perceptions of how much more interested their ingroup is in contact and solidarity than an outgroup may also inhibit people's contact intentions and willingness to make overtures towards solidarity. Indeed, in Study 2, Black and Asian Americans' perceptions of the other group's interest in contact and solidarity was significantly correlated with their own interest in contact and solidarity, $r(258) = .495, p < .001, 95\% \text{ CI } [.398, .582]$. Future research

should examine this possibility by manipulating people's perceptions of the outgroup's interest in contact and solidarity and observe its influence on their own interest in contact and solidarity. These results also suggest that even if Asian Americans' meta-evaluations are somewhat accurate, this is not the case for all their interminority perceptions, as their perceptions of the outgroup's interest in contact and solidarity was still negatively exaggerated.

Interminority Meta-Evaluations and Contact and Solidarity

Having now discussed higher and lower status ethnic minority group members' various interminority meta-perceptions, I turn to consider the relationship between their interminority meta-evaluations and outcomes of possible importance for interminority solidarity. First, in examining the influence of meta-evaluations in predicting ethnic minority group members' interest in contact and solidarity in working together to address issues of mutual concern, results were not consistent with hypothesis 5, although they did suggest an indirect relationship. Specifically, Black and Asian Americans' meta-evaluations were found to be related to their interest in contact and solidarity with ethnic minority outgroups indirectly through the influence of meta-evaluations on perceptions of the outgroup. I hypothesized that meta-evaluation valence would positively predict interest in interminority contact and solidarity directly, holding constant the effects of participant ethnicity and other-evaluation valence (H5). Past research found negative meta-stereotype activation to be a more powerful predictor of people's interest in intergroup contact than their attitudes towards the outgroup (Finchilescu, 2010). However, this was not the case in the present research. Perhaps this can be explained by the fact that in the present study, negative meta-stereotypes were not made salient, and instead overall meta-evaluations were assessed. In situations that prompt or make negative meta-stereotypes salient, they may have a larger direct influence on ethnic minority group members' interest in interminority contact and solidarity. However, the present findings are consistent with other recent research suggesting that people's meta-perceptions of how their ingroup is viewed by an outgroup may indirectly effect outcomes through its influence on their perceptions of the outgroup (e.g., O'Brien et al., 2018). For example, O'Brien et al. (2018) found that when Americans' meta-perceptions of how they are viewed by a national outgroup were influenced by exposure to information about the outgroup's policy opinions, Americans' meta-perceptions influenced their support for national policies promoting conflict or negotiation with the outgroup through its influence on Americans' perceptions of the outgroup.

Despite the indirect influence of ethnic minority group members' interminority meta-evaluations on their interest in interminority contact and solidarity evident in Study 2, the results of Study 3 were only partially consistent with my hypotheses. Specifically, when Black and Asian Americans believed they would be interacting with either a member of the ethnic minority outgroup or an ingroup member, only Black Americans were less willing to discuss interminority solidarity with an outgroup member than an ingroup member and this effect was not mediated by their meta-evaluations. I hypothesized members of both groups would be less willing to discussing interminority solidarity with an outgroup member than an ingroup member (H6a). Simple effects suggested that this effect was driven by Asian Americans' reduced willingness to discuss interminority solidarity with an ingroup member relative to Black Americans and not differences in their willingness to discuss interminority solidarity with an outgroup member. Although purely speculative, Asian Americans' hesitancy to discuss interminority solidarity with an ingroup member—relative to Black Americans—may be driven by concerns such a discussion would violate ingroup norms, indicated by Asian Americans' perceptions that their ingroup feels particularly negative towards lower status ethnic minority outgroups (e.g., Black Americans). Asian Americans then believing their ingroup views lower status ethnic minority outgroups negatively, may also believe fellow ingroup members are uninterested in discussing solidarity and cooperation with other ethnic minority groups. If this is the case, Asian Americans may be similarly unwilling to discuss such solidarity with ingroup members as outgroup members, believing both are somewhat disinterested in such solidarity.

In Study 3, contrary to hypothesis 6b, relative differences in Black Americans' willingness to discuss interminority solidarity with an ingroup relative to an outgroup member were not mediated by their meta-evaluations of how their partner viewed them or by their perceptions of their partner (other-evaluation). One reason for this may be that in Study 3 relative to the previous studies, I assessed Asian and Black Americans' meta-evaluations at the individual level (i.e., how they felt they were viewed by their partner) and not the group level (i.e., how they felt their group is viewed by the outgroup), which did not differ depending on whether they were interacting with an ingroup or an outgroup member. I expected members of both groups to feel they were viewed more negatively by an outgroup interaction partner relative to an ingroup partner (H3d). As previously mentioned, perhaps the online nature of this research left people feeling that it was less likely they would be judged according to their group

membership by their partner because their ethnicity would be less salient—being indicated solely by their response on a questionnaire and not their physical appearance as it would in a face-to-face interaction. However, this post hoc reasoning is purely speculative. As Study 3 did not include a measure of group-level meta-evaluation, it is hard to say whether such perceptions would mediate the observed relationship when individual-level meta-evaluations did not. Future research should examine ethnic minority group members' willingness to discuss interminority solidarity in a face-to-face exchange where the potential for evaluation may be higher, which would likely increase individuals' expectation they will be viewed according to meta-stereotypes (Vorauer et al., 2000). However, there are several other possible explanations for these findings. It is also possible that the information I provided about the ostensible partner's personal qualities might have induced feelings of similarity as the qualities listed were those found to be common in past participant responses. By making the ostensible partner's responses similar to the average person, it may be that many participants were able to find similarities between themselves and their ostensible partner, reducing their concerns that they would be judged based on their ethnicity and according to stereotypes (Vorauer et al., 1998). Further, as previously discussed, it may be that by providing personal information to their outgroup partner before the discussion, participants felt it was unlikely they would be judged according to their group membership as they had provided their partner with information about who they are as a person, thereby individuating themselves from group stereotypes. Alternatively, it is also possible that it was only higher prejudice individuals that showed such bias, believing they were likely to be judged by an outgroup partner based on their group membership and according to negative meta-stereotypes (Vorauer & Kumhyr, 2001; Vorauer et al., 1998). Such bias may have been offset by lower prejudice individuals' belief that they would be viewed as different from the meta-stereotype and not judged according to it (Vorauer & Kumhyr, 2001; Vorauer et al., 1998), thus obscuring any effects. Future research should examine these possibilities.

Strengths

The present research has clear strengths and represents an important first step in examining an overlooked facet of interminority relations—interminority meta-stereotypes—and provides a foundation for future research to build on. Specifically, the present research allows for a nuanced view of higher and lower status ethnic minority group members' intergroup meta-perceptions by examining a number of different types of meta-perceptions, including meta-

stereotypes, meta-evaluations, and perceptions of outgroup members' interest in contact and solidarity. Further, by assessing perceptions at multiple levels (individual and group) and across different targets (minority and majority outgroups) the present research sheds light on many facets of minority group members' meta-perceptions, including their content, valence, accuracy, and specificity. Moreover, it is a particular strength of the research that open-ended measures of meta-stereotype traits were included in the pilot study and that these data were used to inform the trait selection for closed-ended measures. Lastly, the present research examined the influence of ethnic minority group members' interminority meta-evaluations on both attitudinal and behavioural outcome measures. Assessing its influence on their interest in interminority contact and solidarity (attitudinal), as well as on their willingness to engage in such discussions with outgroup members (behavioural). However, there are also limitations that future research should address.

Limitations

First, the present research relies solely on the attitudes and perceptions of Black and Asian Americans as representing lower and higher status ethnic minority groups. I have chosen to utilize these groups throughout the research in part to ensure consistency across studies, as each study builds on the previous studies, and because people perceive these groups as representing a rather clear distinction in the societal status hierarchy (see, for example, the status ratings in Bergsieker et al., 2010) and they differ strongly on objective indicators of status (Noël, 2018), which was also the case in the present research. Although I believe that the general pattern of findings observed are predicted by relative group status differences and thus should generalize beyond the United States and these particular groups, it is possible that the interminority meta-stereotype content emerging from the present research reflects the specific relationship between Black and Asian Americans. Thus, it is important for future research to show that the patterns observed in the proposed research are influenced by relative status differences between the groups and not unique to the groups involved. It is also possible that while the general pattern remains the same across different groups, traits unique to individual groups may be identified within the broad categories. As such, future research should try and replicate the proposed research using different ethnic minority groups who are higher and lower in relative status and drawing on samples from different countries. Moreover, the groups chosen for the present research represent broad ethnic categories (Asian and Black Americans), which

although meaningful in U.S. discourse, still overlooks the diversity that exists within each group (e.g., ethnic, cultural, status). Future research should also examine the interminority meta-stereotypes held by sub-groups (e.g., South East Asians) that make up these broader ethnic groups to identify any differences that may exist, in particular where differences in status exist.

One difficulty for future research will be identifying and recruiting participants from an alternative high-status ethnic minority group. Although it is somewhat easy for me to think of other relatively low status ethnic minority groups (e.g., Latino Americans, Indigenous Americans), it is perhaps harder for me to think of alternative high-status ethnic minority groups, particularly ones that are easily accessible by researchers. This perspective may be influenced by my own positionality as a researcher, particularly one who is a member of an ethnic majority group and who may be more likely to see ethnicity at broader levels. Future research may be able to identify sub-groups, within the broad categories of ethnicity often examined in psychological research, who are higher vs. lower in status. Taking a more nuanced perspective on ethnic identity may be helpful in identifying higher status ethnic minority groups.

An alternative approach to overcome this difficulty and to provide stronger support for the role of status in predicting differences in interminority meta-stereotype content would be to recruit participants of a single ethnicity (e.g., Latino Americans) and have them indicate their meta-stereotypes of how they believe a fictitious ethnic minority outgroup views them. The status of the fictitious ethnic minority outgroup could be manipulated as either higher or lower status than the participants' own ingroup, thus isolating the effects of group status by removing the noise inherent in working with existing groups and their histories. Others have used fictitious groups before, particularly in studies examining people's attitudes towards immigrants (e.g., Jackson & Esses, 2000), to reduce the impact of prior attitudes and experiences. There is however, the possibility that effects will be weaker when examining fictitious groups because the lack of a prior relationship may make negative meta-stereotypes harder for people to define, thus weakening the effects of the meta-stereotypes (Vázquez et al., 2017).

The present research was also largely correlational in nature. As it is impossible to randomly assign participants to ethnic groups, I am only able to say that the groups differed as observed and not to claim that such differences were caused by ethnicity. Moreover, in the present research I did not manipulate status or meta-evaluation valence. Therefore, I cannot draw causal conclusions about the role of status or the influence of ethnic minority group members'

meta-evaluations on their interest in contact and solidarity. The present studies were also conducted entirely online using samples from MTurk, which may not accurately reflect the demographics of the broader groups within the United States and further may not generalize beyond this population. For example, if participants were oversampled from particular parts of the country, a question I do not have the data to answer, the findings may more accurately reflect regional interethnic relations and not those of the broader communities. However, it is important to note that data from the study do suggest that the groups differed from one another in status, in ways consistent with the general population. Moreover, although not representative of the general population, studies have found MTurk samples to be diverse across a range of characteristics (see Paolacci & Chandler, 2014). Regardless, future research should seek to replicate the findings using different samples and data collection techniques.

Moreover, as these studies were conducted online, where I lacked experimental control over participants' environments, it is possible that stimuli (e.g., television and social media) in participants' environments could have been a distraction or alternatively could have enhanced the salience of particular stereotypes during the completion of the survey, adding noise to my measurements. However, I tried to minimize the possible role of each of these by asking participants to complete the survey in a quiet environment and by assessing attentive responding. Further, in Study 3, where participants were led to believe they were interacting with another person, it is unclear to what degree participants truly felt like they were engaging in such an interaction. Although open-ended responses about their perceptions of their partner were examined and only a single incident existed where a participant identified feeling that their partner was not real, other participants may have felt the same but did not indicate so. Anecdotally, examining participants' responses it appears people believed their partner was real and were engaged in thinking about who they were as a person and their partner's similarities and dissimilarities from themselves. However, as I did not ask participants pointedly about their suspicions, I can not rule out the possibility that more people questioned their partner's existence. These are not the only questions that deserve future examination: Because the present research only serves as a first look at interminority meta-stereotypes and their outcomes, there are many remaining questions to be addressed in future research.

Future Directions

One major avenue for future research is to examine the interminority meta-stereotypes of groups who are similar in social standing. In the present research, I focused on groups for which there exists a generally clear distinction in relative status between the groups. However, status differences between groups are often not so clear cut and it is therefore important to understand the content of interminority meta-stereotypes between groups more similar in status. For such groups, their meta-stereotypes may be more similar in nature, with both groups worrying about how competent and moral their group is seen as being. In such cases, it may also be important to examine regional factors, such as the relative economic outcomes of ingroup and outgroup members within people's immediate surroundings, which may influence perceptions of status and thus the content of meta-stereotypes. Prior research suggests these factors can play an important role in predicting relations between groups often thought of as somewhat similar in status at an overall group level (Gay, 2006).

Future research should also examine factors that may predict more positive or negative interminority meta-stereotypes. Identifying factors that may affect the positivity of interminority meta-stereotypes could help in developing interventions. For instance, although I found evidence that negative meta-evaluations reduce ethnic minority group members' desire for interminority contact by influencing their perceptions of the outgroup, what contact that does occur, if positive, could lead to more positive meta-stereotypes. Similarly, negative contact seems likely to lead to more negative meta-stereotypes. So far, research has largely examined intergroup contact and people's contact intentions as an outcome of meta-stereotypes (e.g., Finchilescu, 2005; Finchilescu, 2010; MacInnis & Hodson, 2012) and not how the quality of such contact may subsequently influence the valence of meta-stereotypes. However, research by Gómez and Huici (2008) found that vicarious contact—seeing ingroup members and outgroup members interacting—can lead to more positive meta-stereotypes, which suggests an influence of contact on meta-stereotypes. Although not assessing meta-stereotypes, other research examining the relationship between different forms of intergroup contact and people's expectations for future intergroup interaction also suggest a positive link between contact and expectancies (Gómez et al., 2011; Tropp, 2003).

Further, future research should also assess ethnic minority group members' support for organizations and initiatives that cross group boundaries to work for social change by building interminority solidarity. Even though the present research identified a number of biases—namely

inaccurate meta-evaluations and pluralistic ignorance in perceptions of one's own relative to outgroup members' interest in interminority contact—that may negatively impact efforts towards cooperation across group boundaries, such biases may not influence ethnic minority group members' support of cross-group coalition organizations. In particular, despite negative meta-evaluations, people may still be willing to get involved with diverse organizations working towards social change if such groups explicitly focus on interminority solidarity because the goals of the organization suggest an inclusive environment where outgroup members may be less likely to endorse stereotypes and more likely to be interested in cooperation.

Lastly, contrary to my hypothesis (H6b) negative meta-evaluations did not reduce ethnic minority group members' willingness to discuss interminority solidarity with an outgroup relative to an ingroup member in Study 3. I had hypothesized that negative meta-evaluations would have a negative impact on ethnic minority group members' willingness to discuss such solidarity because they would be likely to believe such overtures may be rejected. However, as this was not found to be the case, future research should examine other possible mechanisms to explain Black Americans' reduced willingness to discuss interminority solidarity with an outgroup relative to an ingroup member and why Asian Americans did not show the same bias. I still believe it is likely that any hesitation to engage in such discussions is driven in part by perceptions that one's overtures will be rejected. One possibility might be that in Study 3, ethnic minority group members' willingness to discuss interminority solidarity with their partner may have been influenced by their perceptions of their partner's interest in such a discussion. Both Black and Asian Americans might perceive outgroup members as less interested than themselves in such a discussion (pluralistic ignorance), but it may also be the case that Asian Americans felt fellow ingroup members would be uninterested in such discussions, due to their perceptions of ingroup members' negative views of lower status ethnic minority outgroups (i.e., Black Americans). However, as the findings of Study 2 suggest that group level meta-evaluations have an indirect influence on ethnic minority group members' interest in discussing interminority contact and solidarity, I believe these perceptions may still play a role. Future research should examine when and if group-level meta-evaluations become activated during interactions, such that they influence people's willingness to discuss interminority solidarity.

Conclusion

Given the increasing diversity of many countries, it is important to understand the factors that influence relations between ethnic minority groups, particularly, those that may impact their desire and willingness to seek solidarity with members of other ethnic minority groups in addressing issues of mutual concern. If greater numerical representation in society is paired with a united voice for change, it seems quite possible that ethnic minority groups can gain a greater influence over the direction of systems that impact their daily lives (e.g., government). Such unity of action will rely both on contact between members of ethnic minority groups and formal alliances focused on change. How ethnic minority group members feel their ingroup is viewed by ethnic minority outgroup members was found to have a significant impact on their interest in seeking interminority contact and solidarity and as such is likely to play an important role in understanding relations between ethnic minority groups in increasingly diverse environments.

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Footnotes

¹ In Study 1, the valence of Asian and Black Americans' interminority and majority competence- and morality-based meta-stereotypes were associated with age (r s ranged between -.139 and -.154) and gender (r s ranged between -.127 and -.168), albeit the relationships were very weak. Moreover, Asian and Black Americans differed somewhat in their age and gender composition, with Black Americans tending to be older and there being fewer Black American males and more females. However, when age, gender and their interactions with all between- and within-subjects factors were included in the analysis there were no significant main effects or interactions involving these predictors. Most importantly, the effects reported were not moderated by age or gender. Indeed, the pattern of simple effects remained the same. However, it should be noted that I lacked power in detecting higher-order four-way and five-way interactions involving age and gender. For these reasons I report results without age and gender included in the model.

² When participants' own attitude towards interminority solidarity is included as a covariate, the pattern of effects remains the same. Moreover, participants' own attitudes towards interminority solidarity was not associated with their willingness to discuss interminority solidarity, $F(1, 486) = 2.113, p = .147, \eta_p^2 = .004$.

³ Examining participants' self-rated interest in discussing interminority solidarity with their partner, the pattern of results appeared different from those assessing their rank ordered willingness to discuss interminority solidarity. Although I did find a significant two-way interaction between participant ethnicity and partner ethnicity, $F(1, 487) = 5.849, p = .016, \eta_p^2 = .012$, simple effects showed a different pattern than did those for the rank order measure. Specifically, on this dependent variable, Asian Americans expressed more interest in discussing interminority solidarity with an outgroup than an ingroup interaction partner, $t(487) = 2.762, p = .006, \eta_p^2 = .015, 95\% \text{ CI } [0.188, 1.116]$. There was no evidence Black Americans differed in their interest in discussing interminority solidarity with an outgroup relative to an ingroup interaction partner, $t(487) = -.658, p = .511, \eta_p^2 = .001, 95\% \text{ CI } [-0.618, 0.308]$. As my purpose was to examine actual behaviour in situations where one could seek solidarity (i.e., choosing whether you would be willing to discuss interminority solidarity), I focused on the more behavioural measure. Further, the rank order measure may have been a better measure because participants had considered each possible topic before completing it. This was not necessarily

true of the self-rated interest measure, where participants made their ratings in isolation, one item at a time, not necessarily having read through all the options. This was compounded by the fact that the self-rated interest measure was not randomized and the interminority solidarity item always came first.

Appendix A

Pilot Study: Consent Form



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Study Information and Consent Form

Study Title: Survey of People's Perceptions of How Different Groups View Each Other

Principal Researcher: Matthew Quesnel, Ph.D. Student, Department of Psychology

Contact Number: 1 (204) 474-6936 (lab); email: umquesne@myumanitoba.ca

Faculty Supervisor: Dr. Jacquie Vorauer, Professor, Department of Psychology

Contact Number: 1 (204) 474-8250; email: vorauer@cc.umanitoba.ca

This study is being conducted by Matthew Quesnel under the supervision of Dr. J. Vorauer, a faculty member in the Department of Psychology. It examines people's perceptions of how different ethnic groups view each other. The information that follows describes the study and what's involved in your possible participation.

It is strongly recommended that you print this consent form and keep it for your records and reference. At the very least, please keep a record of the study name and the contact emails of the researchers. This consent form is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask via the contact information provided at the top of this form. Please take time to read this carefully and to understand any accompanying information.

If you choose to participate, you will be asked to describe how you feel your ethnic group is viewed by members of other ethnic groups and how your own ethnic group views other groups. You will also be asked to provide basic demographic information and to answer some questions about yourself. At the end of the study, you will be given an explanation of our hypotheses and the methods that we used. The study should take approximately 10 to 12 minutes and you will receive \$0.75 for your participation.

Participation in this study is voluntary and you may end your participation at any time without reprisal or loss of payment. However, in order to receive your payment, you must proceed to the end of the survey (after the feedback form) in order to obtain the code for this study and submit it. You may also refuse to answer any questions that you do not wish to answer. If you decide to opt out of the study after completing all or part of the survey, you will have the option to submit your responses to us (by pressing the "next" button at the bottom of the webpage) or to have your responses deleted by indicating so to the experimenter (email umquesne@myumanitoba.ca) with the subject heading: Perceptions of How Groups are Viewed. Because you are anonymous, if you ask us to delete your data, we will need to work with you using information such as time of completion and

the nature of the responses that you did enter to identify your data. If you would like us to delete your data you must contact the experimenter within one week of your participation.

We would like to emphasize that all of your responses will be kept completely confidential and anonymous. Your answers to questions in this study are collected by Qualtrics™. Risks to confidentiality are minimal and are similar to those associated with many e-mail and social media websites such as Hotmail and Facebook. Only the primary investigators, or qualified researchers who request it for scholarly purposes, will have access to the (anonymous) raw data from this study. There are no plans to destroy the data, which will be completely anonymous.

We intend to present the findings of the study in the principal researcher's doctoral dissertation, at an academic conference and in an academic journal. Only aggregate results (i.e., averages across large numbers of participants) will be reported in any publication of the findings. The data, which will be anonymous, will be stored on password-protected computers in locked laboratory rooms in the Duff Roblin building and on the principal investigator's password-protected personal computers.

The University of Manitoba Research Ethics Board(s) may also require access to your research records for safety and quality assurance purposes.

At the end of the survey you will be provided with an explanation of the purpose of this study in further detail. A summary of the findings will be made available at the end of April, 2019. You will not receive individualized feedback about your responses. Instead the aggregated summary will describe the average responses of participants. An aggregated summary of results will be emailed to participants upon request by August 2019. To receive a summary, email umquesne@myumanitoba.ca with the subject heading: Perceptions of How Groups are Viewed.

This research has been approved by the Psychology/Sociology Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Coordinator (HEC) at 1-204-474-7122, or email humanethics@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

By clicking "Agree" below you will indicate that you have understood to your satisfaction the information regarding participation in the research project and agree to participate. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation (by sending an email to umquesne@myumanitoba.ca).

Agree

Decline

Appendix B

Pilot Study: Instructions

Instructions

We ask that you complete this survey alone and in a quiet place where you can concentrate and provide your full attention to the questions. Remember that all of your responses will be kept completely confidential. If a question in the survey makes you feel uncomfortable, please feel free to skip that question. However, every question is important in helping us answer our research questions so please be careful not to miss any questions unintentionally.

It is important to understand that a lot of time and effort, on the part of both the researchers and participants, has gone into this research study and everyone's time will be wasted if participants do not devote their full attention to this survey. As such, in order to ensure the accuracy of the information we collect, you will notice that the survey includes questions designed to test whether participants are paying attention.

IMPORTANT: Do not click the "back" button at the top of your browser, doing so will cause the survey to close

Thank-you. Your participation is greatly appreciated.

Appendix C

Pilot Study to Study 3: Demographics

Age: _____

Gender: (circle one):

_____ Male

_____ Female

_____ or I identify my gender as (specify) _____

Please indicate how you would best describe your ethnic or cultural background by checking one of the general categories presented below.

_____ Asian American (e.g., Chinese, Japanese, Korean)

_____ Black/African American

_____ Indigenous (e.g., Native American, Native Alaskan, Native Hawaiian)

_____ Latin American (e.g., Chilean, Costa Rican, Mexican)

_____ Métis

_____ Middle East and North Africa (e.g., Egyptian, Iranian, Israeli)

_____ White/European (e.g., English, French, Scottish, Irish)

_____ Other (please specify: _____)

Please indicate how long you have lived in the United States:

_____ 1 year or less

_____ between 1 and 2 years

_____ between 2 and 5 years

_____ between 5 and 10 years

_____ more than 10 years

_____ I was born in the United States

Please indicate which of the following languages you speak fluently.

_____ English

_____ German

_____ French

_____ Punjabi

_____ Cantonese

_____ Tagalog

_____ Mandarin

_____ Spanish

_____ Italian

_____ Other

Appendix D

Pilot Study to Study 2: Instructions to Alleviate Social Desirability Concerns

Further Instructions

The following questions focus on sensitive but important issues. We encourage you to speak your mind, and to be as honest as possible. Remember that your responses will be kept completely confidential.

Moreover, there are of course no right or wrong answers to these questions. What matters are your own thoughts and feelings, whatever they may be. There is a possibility that some of these questions might make you uncomfortable. Rest assured that past research in this area has revealed that almost everyone has positive and negative things to say about all groups (including ones they belong to). As an example, consider doctors. Some people have positive things to say about doctors (e.g., they are altruistic and intelligent). However, some people also have negative things to say about doctors (e.g., they are money-oriented and snobby). In the next six questions we ask you to provide information of this kind for various groups.

Appendix E

Pilot Study: Self-Generated Meta-Stereotypes

Now we are interested in your beliefs of how **Black/Asian Americans** are viewed by **Asian/Black Americans**. In the boxes below, please indicate the traits or qualities you feel Asian/Black Americans believe your own ethnic group (Black/Asian Americans) possess. You do not need to agree with these evaluations, we are simply interested in your perceptions of the stereotypes that Asian/Black Americans hold about Black/Asian Americans.

Reminder: List traits or qualities you feel **Asian/Black Americans** believe your own ethnic group (**Black/Asian Americans**) possesses.

Trait

Trait

Trait

Trait

Trait

Appendix F

Pilot Study: Meta-Stereotype Trait Valence and Strength

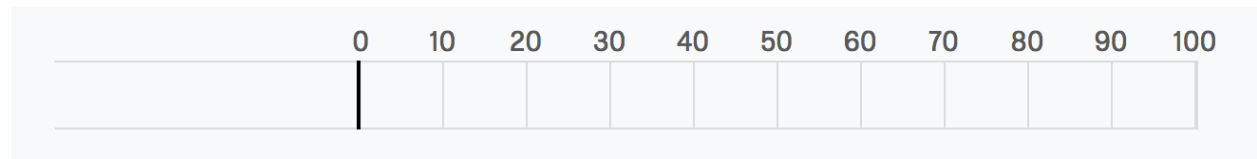
For each trait or quality that you listed previously, we are interested to understand how negative or positive you perceive that trait or quality to be and what proportion of Black/Asian Americans you believe Asian/Black Americans feel possess that trait. For each trait please make the following judgements.

Trait 1 [to be pulled from the trait listed on the previous page]

How negative or positive is the trait: [Trait 1]?

Extremely positive 1	Moderately positive 2	Slightly positive 3	Neither positive nor negative 4	Slightly negative 5	Moderately negative 6	Extremely negative 7
----------------------------	-----------------------------	---------------------------	---------------------------------------	---------------------------	-----------------------------	----------------------------

What percentage of your own ethnic group (Black/Asian Americans) do Asian/Black Americans believe possess this trait (from 0% to 100%)?

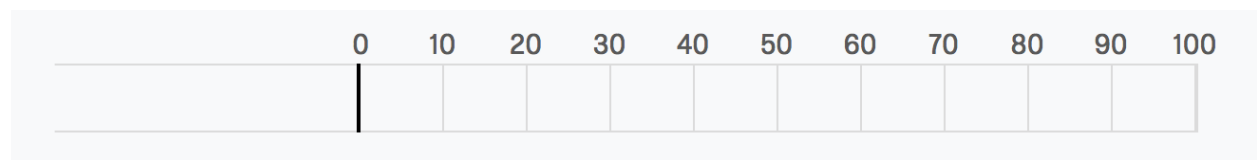


Trait 2 [to be pulled from the trait listed on the previous page]

How negative or positive is the trait: [Trait 2]?

Extremely positive 1	Moderately positive 2	Slightly positive 3	Neither positive nor negative 4	Slightly negative 5	Moderately negative 6	Extremely negative 7
----------------------------	-----------------------------	---------------------------	---------------------------------------	---------------------------	-----------------------------	----------------------------

What percentage of your own ethnic group (Black/Asian Americans) do Asian/Black Americans believe possess this trait (from 0% to 100%)?

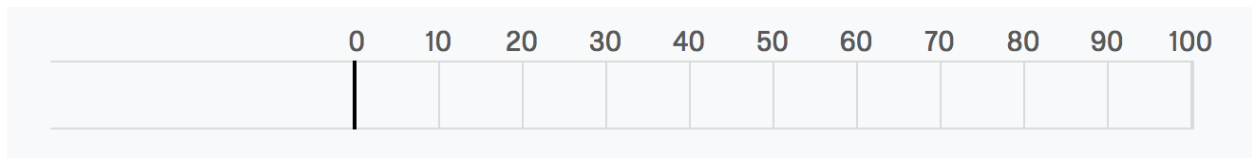


Trait 3 [to be pulled from the trait listed on the previous page]

How negative or positive is the trait: [Trait 3]?

Extremely positive	Moderately positive	Slightly positive	Neither positive nor negative	Slightly negative	Moderately negative	Extremely negative
1	2	3	4	5	6	7

What percentage of your own ethnic group (Black/Asian Americans) do Asian/Black Americans believe possess this trait (from 0% to 100%)?



Trait 4 [to be pulled from the trait listed on the previous page]

How negative or positive is the trait: [Trait 4]?

Extremely positive	Moderately positive	Slightly positive	Neither positive nor negative	Slightly negative	Moderately negative	Extremely negative
1	2	3	4	5	6	7

What percentage of your own ethnic group (Black/Asian Americans) do Asian/Black Americans believe possess this trait (from 0% to 100%)?

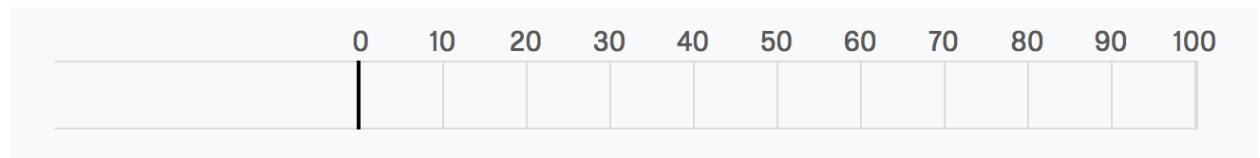


Trait 5 [to be pulled from the trait listed on the previous page]

How negative or positive is the trait: [Trait 5]?

Extremely positive	Moderately positive	Slightly positive	Neither positive nor negative	Slightly negative	Moderately negative	Extremely negative
1	2	3	4	5	6	7

What percentage of your own ethnic group (Black/Asian Americans) do Asian/Black Americans believe possess this trait (from 0% to 100%)?



Appendix G**Pilot Study: Self-Generated Other-Stereotypes**

Now we are interested in your beliefs of how your own ethnic group (**Black/Asian Americans**) views **Asian/Black Americans**. In the boxes below, please indicate the traits or qualities you feel Black/Asian Americans believe Asian/Black Americans possess. You do not need to agree with these evaluations, we are simply interested in your perceptions of the stereotypes that Black/Asian Americans hold about Asian/Black Americans.

Reminder: List traits or qualities you feel **Black/Asian Americans** believe **Asian/Black Americans** possess.

Trait

Trait

Trait

Trait

Trait

Appendix H

Pilot Study: Other-Stereotype Trait Valence and Strength

For each trait or quality that you listed previously, we are interested to understand how negative or positive you perceive that trait or quality to be and what proportion of Black/Asian Americans you believe Asian/Black Americans feel possess that trait. For each trait please make the following judgements.

Trait 1 [to be pulled from the trait listed on the previous page]

How negative or positive is the trait: [Trait 1]?

Extremely positive	Moderately positive	Slightly positive	Neither positive nor negative	Slightly negative	Moderately negative	Extremely negative
1	2	3	4	5	6	7

What percentage of Black/Asian Americans does your own ethnic group (Asian/Black Americans) believe possess this trait (from 0% to 100%)?



Trait 2 [to be pulled from the trait listed on the previous page]

How negative or positive is the trait: [Trait 2]?

Extremely positive	Moderately positive	Slightly positive	Neither positive nor negative	Slightly negative	Moderately negative	Extremely negative
1	2	3	4	5	6	7

What percentage of Black/Asian Americans does your own ethnic group (Asian/Black Americans) believe possess this trait (from 0% to 100%)?

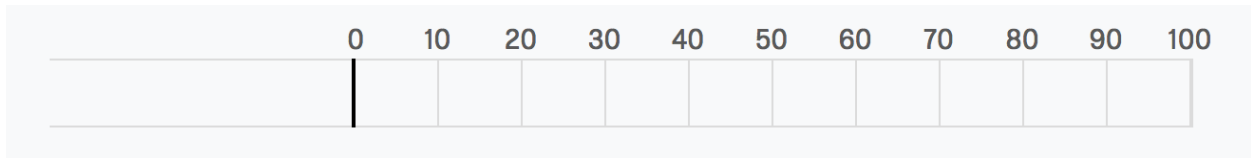


Trait 3 [to be pulled from the trait listed on the previous page]

How negative or positive is the trait: [Trait 3]?

Extremely positive	Moderately positive	Slightly positive	Neither positive nor negative	Slightly negative	Moderately negative	Extremely negative
1	2	3	4	5	6	7

What percentage of Black/Asian Americans does your own ethnic group (Asian/Black Americans) believe possess this trait (from 0% to 100%)?

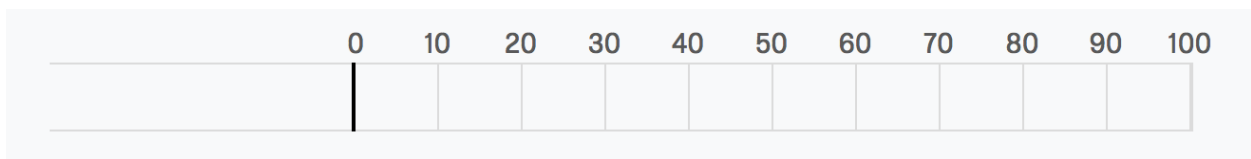


Trait 4 [to be pulled from the trait listed on the previous page]

How negative or positive is the trait: [Trait 4]?

Extremely positive	Moderately positive	Slightly positive	Neither positive nor negative	Slightly negative	Moderately negative	Extremely negative
1	2	3	4	5	6	7

What percentage of Black/Asian Americans does your own ethnic group (Asian/Black Americans) believe possess this trait (from 0% to 100%)?

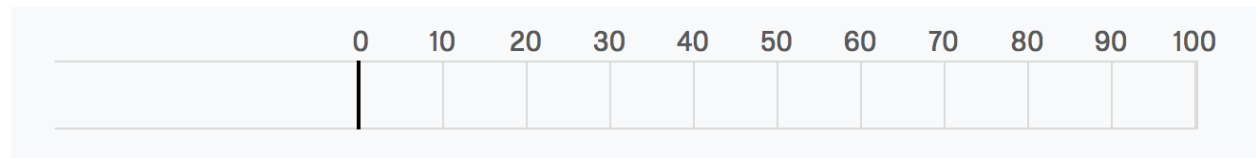


Trait 5 [to be pulled from the trait listed on the previous page]

How negative or positive is the trait: [Trait 5]?

Extremely positive	Moderately positive	Slightly positive	Neither positive nor negative	Slightly negative	Moderately negative	Extremely negative
1	2	3	4	5	6	7

What percentage of Black/Asian Americans does your own ethnic group (Asian/Black Americans) believe possess this trait (from 0% to 100%)?



Appendix I

Pilot Study to Study 3: Group Status

There are many people who believe that different ethnic groups enjoy different amounts of social status in this society. You may not believe this for yourself, but if you had to rate each of the following groups as such people see them, how would you do so?

Asian Americans:

Extremely Low status	Moderately low status	Somewhat Low status	Neither low nor high status	Somewhat High status	Moderately high status	Extremely high status
1	2	3	4	5	6	7

Black Americans:

Extremely Low status	Moderately low status	Somewhat Low status	Neither low nor high status	Somewhat High status	Moderately high status	Extremely high status
1	2	3	4	5	6	7

Appendix J**Pilot Study to Study 3: Additional Demographics**

Please indicate how you would best describe your ethnic or cultural background by checking one of the general categories presented below.

- Arab (e.g., Egyptian, Kuwaiti, Libyan)
- Black/African American
- Chinese
- Filipino
- Indigenous (e.g., Native American, Native Alaskan, Native Hawaiian)
- Japanese
- Korean
- Latin American (e.g., Chilean, Costa Rican, Mexican)
- Métis
- South Asian (e.g., Bangladeshi, Punjabi, Sri Lankan)
- South East Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian)
- West Asian (Afghan, Assyrian, Iranian)
- White/European (e.g., English, French, Scottish, Irish)
- Other (please specify: _____)

Please indicate your family's annual household income:

- less than \$15,000
- \$15,001-\$30,000
- \$30,001-\$45,000
- \$45,001-\$75,000
- \$75,001-\$100,000
- \$100,000-\$150,000
- greater than \$150,000

Please indicate your highest level of educational achievement:

- high school graduation
- college graduation
- post-graduate degree

Appendix K

Study 1: Consent Form



UNIVERSITY
OF MANITOBA

Study Information and Consent Form

Study Title: Survey of People’s Perceptions of How Their Ethnic Group is Viewed
Principal Researcher: Matthew Quesnel, Ph.D. Student, Department of Psychology
Contact Number: 1 (204) 474-6936 (lab); email: umquesne@myumanitoba.ca

Faculty Supervisor: Dr. Jacquie Vorauer, Professor, Department of Psychology
Contact Number: 1 (204) 474-8250; email: vorauer@cc.umanitoba.ca

This study is being conducted by Matthew Quesnel under the supervision of Dr. J. Vorauer, a faculty member in the Department of Psychology. It examines people’s perceptions of how different ethnic groups view each other. The information that follows describes the study and what’s involved in your possible participation.

It is strongly recommended that you print this consent form and keep it for your records and reference. At the very least, please keep a record of the study name and the contact emails of the researchers. This consent form is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask via the contact information provided at the top of this form. Please take time to read this carefully and to understand any accompanying information.

If you choose to participate, you will be asked to describe how you feel your ethnic group is viewed by members of other ethnic groups and how your own ethnic group views other groups. You will also be asked to provide basic demographic information and to answer some questions about yourself. At the end of the study, you will be given an explanation of our hypotheses and the methods that we used. The study should take approximately 10 minutes and you will receive \$0.75 for your participation.

Participation in this study is voluntary and you may end your participation at any time without reprisal or loss of payment. However, in order to receive your payment, you must proceed to the end of the survey (after the feedback form) in order to obtain the code for this study and submit it. You may also refuse to answer any questions that you do not wish to answer. If you decide to opt out of the study after completing all or part of the survey, you will have the option to submit your responses to us (by pressing the “next” button at the bottom of the webpage) or to have your responses deleted by indicating so to the experimenter (email umquesne@myumanitoba.ca) with the subject heading: Perceptions of How Groups are Viewed. Because you are anonymous, if you ask us to delete your data, we will need to work with you using information such as time of completion and the nature of the responses that you

did enter to identify your data. If you would like us to delete your data you must contact the experimenter within one week of your participation.

We would like to emphasize that all of your responses will be kept completely confidential and anonymous. Your answers to questions in this study are collected by Qualtrics™. Risks to confidentiality are minimal and are similar to those associated with many e-mail and social media websites such as Hotmail and Facebook. Only the primary investigators, or qualified researchers who request it for scholarly purposes, will have access to the (anonymous) raw data from this study. There are no plans to destroy the data, which will be completely anonymous.

We intend to present the findings of the study in the principal researcher's doctoral dissertation, at an academic conference and in an academic journal. Only aggregate results (i.e., averages across large numbers of participants) will be reported in any publication of the findings. The data, which will be anonymous, will be stored on password-protected computers in locked laboratory rooms in the Duff Roblin building and on the principal investigator's password-protected personal computers.

The University of Manitoba Research Ethics Board(s) may also require access to your research records for safety and quality assurance purposes.

At the end of the survey you will be provided with an explanation of the purpose of this study in further detail. A summary of the findings will be made available at the end of April, 2019. You will not receive individualized feedback about your responses. Instead the aggregated summary will describe the average responses of participants. An aggregated summary of results will be emailed to participants upon request by August 2019. To receive a summary, email umquesne@myumanitoba.ca with the subject heading: Perceptions of How Groups are Viewed.

This research has been approved by the Psychology/Sociology Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Coordinator (HEC) at 1-204-474-7122, or email humanethics@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

By clicking "Agree" below you will indicate that you have understood to your satisfaction the information regarding participation in the research project and agree to participate. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation (by sending an email to umquesne@myumanitoba.ca).

Agree

Decline

Appendix L

Study 1: Majority Meta-Stereotype

Now we ask you to indicate your perceptions of the stereotypes that **White Americans** have about your own ethnic group (**Black/Asian Americans**). We ask that you respond according to *the stereotypes that you believe White Americans hold* about the characteristics of Black/Asian Americans. You do not need to agree with these evaluations, we are simply interested in your perceptions of the stereotypes that White Americans hold about Black/Asian Americans.

According to White Americans’ stereotypes, how are Black/Asian Americans perceived on the following traits or characteristics?

Very tolerant	Moderately tolerant	Somewhat tolerant	Neither tolerant nor prejudiced	Somewhat prejudiced	Moderately prejudiced	Very prejudiced
1	2	3	4	5	6	7
Very moral	Moderately moral	Somewhat moral	Neither moral nor immoral	Somewhat immoral	Moderately immoral	Very immoral
1	2	3	4	5	6	7
Very fair	Moderately fair	Somewhat fair	Neither fair nor unfair	Somewhat unfair	Moderately unfair	Very unfair
1	2	3	4	5	6	7
Very trustworthy	Moderately trustworthy	Somewhat trustworthy	Neither trustworthy nor untrustworthy	Somewhat untrustworthy	Moderately untrustworthy	Very untrustworthy
1	2	3	4	5	6	7
Very unaggressive	Moderately unaggressive	Somewhat unaggressive	Neither unaggressive nor aggressive	Somewhat aggressive	Moderately aggressive	Very aggressive
1	2	3	4	5	6	7
Very law-abiding	Moderately law-abiding	Somewhat law-abiding	Neither law-abiding nor criminal	Somewhat criminal	Moderately criminal	Very criminal
1	2	3	4	5	6	7

Very friendly	Moderately friendly	Somewhat friendly	Neither friendly nor unfriendly	Somewhat unfriendly	Moderately unfriendly	Very unfriendly
1	2	3	4	5	6	7
Very warm	Moderately warm	Somewhat warm	Neither warm nor cold	Somewhat cold	Moderately cold	Very cold
1	2	3	4	5	6	7
Very likeable	Moderately likeable	Somewhat likeable	Neither likeable nor unlikeable	Somewhat unlikeable	Moderately unlikeable	Very unlikeable
1	2	3	4	5	6	7
Very kind	Moderately kind	Somewhat kind	Neither kind nor unkind	Somewhat unkind	Moderately unkind	Very unkind
1	2	3	4	5	6	7
Very polite	Moderately polite	Somewhat polite	Neither polite nor rude	Somewhat rude	Moderately rude	Very rude
1	2	3	4	5	6	7
Very outgoing	Moderately outgoing	Somewhat outgoing	Neither outgoing nor quiet	Somewhat quiet	Moderately quiet	Very quiet
1	2	3	4	5	6	7
Very competent	Moderately competent	Somewhat competent	Neither competent nor incompetent	Somewhat incompetent	Moderately incompetent	Very incompetent
1	2	3	4	5	6	7
Very skilled	Moderately skilled	Somewhat skilled	Neither skilled nor unskilled	Somewhat unskilled	Moderately unskilled	Very unskilled
1	2	3	4	5	6	7

Very intelligent	Moderately intelligent	Somewhat intelligent	Neither intelligent nor unintelligent	Somewhat unintelligent	Moderately unintelligent	Very unintelligent
1	2	3	4	5	6	7
Very capable	Moderately capable	Somewhat capable	Neither capable nor incapable	Somewhat incapable	Moderately incapable	Very incapable
1	2	3	4	5	6	7
Very hardworking	Moderately hardworking	Somewhat hardworking	Neither hardworking nor lazy	Somewhat lazy	Moderately lazy	Very lazy
1	2	3	4	5	6	7
Very educated	Moderately educated	Somewhat educated	Neither educated nor uneducated	Somewhat uneducated	Moderately uneducated	Very uneducated
1	2	3	4	5	6	7
Very clean	Moderately clean	Somewhat clean	Neither clean nor dirty	Somewhat dirty	Moderately dirty	Very dirty
1	2	3	4	5	6	7
Very rich	Moderately rich	Somewhat rich	Neither rich nor poor	Somewhat poor	Moderately poor	Very poor
1	2	3	4	5	6	7
Very high-class	Moderately high-class	Somewhat high-class	Neither high-class nor low-class	Somewhat low-class	Moderately low-class	Very low-class
1	2	3	4	5	6	7
Very dominant	Moderately dominant	Somewhat dominant	Neither dominant nor submissive	Somewhat submissive	Moderately submissive	Very submissive
1	2	3	4	5	6	7

Very high-status	Moderately high-status	Somewhat high-status	Neither high- status nor low-status	Somewhat low-status	Moderately low-status	Very low-status
1	2	3	4	5	6	7

Very privileged	Moderately privileged	Somewhat privileged	Neither privileged nor under privileged	Somewhat underprivileged	Moderately underprivileged	Very underprivileged
1	2	3	4	5	6	7

Appendix M

Study 1: Interminority Meta-Stereotype

Now we ask you to indicate your perceptions of the stereotypes that **Asian/Black Americans** have about your own ethnic group (**Black/Asian Americans**). We ask that you respond according to *the stereotypes that you believe Asian/Black Americans* hold about the characteristics of Black/Asian Americans. You do not need to agree with these evaluations, we are simply interested in your perceptions of the stereotypes that Asian/Black Americans hold about Black/Asian Americans.

According to Asian/Black Americans’ stereotypes, how are Black/Asian Americans perceived on the following traits or characteristics?

			Neither			
Very tolerant	Moderately tolerant	Somewhat tolerant	tolerant nor prejudiced	Somewhat prejudiced	Moderately prejudiced	Very prejudiced
1	2	3	4	5	6	7
Very moral	Moderately moral	Somewhat moral	Neither moral nor immoral	Somewhat immoral	Moderately immoral	Very immoral
1	2	3	4	5	6	7
Very fair	Moderately fair	Somewhat fair	Neither fair nor unfair	Somewhat unfair	Moderately unfair	Very unfair
1	2	3	4	5	6	7
			Neither			
Very trustworthy	Moderately trustworthy	Somewhat trustworthy	trustworthy nor untrustworthy	Somewhat untrustworthy	Moderately untrustworthy	Very untrustworthy
1	2	3	4	5	6	7
			Neither			
Very unaggressive	Moderately unaggressive	Somewhat unaggressive	unaggressive nor aggressive	Somewhat aggressive	Moderately aggressive	Very aggressive
1	2	3	4	5	6	7
			Neither			
Very law-abiding	Moderately law-abiding	Somewhat law-abiding	law-abiding nor criminal	Somewhat criminal	Moderately criminal	Very criminal
1	2	3	4	5	6	7

Very friendly	Moderately friendly	Somewhat friendly	Neither friendly nor unfriendly	Somewhat unfriendly	Moderately unfriendly	Very unfriendly
1	2	3	4	5	6	7
Very warm	Moderately warm	Somewhat warm	Neither warm nor cold	Somewhat cold	Moderately cold	Very cold
1	2	3	4	5	6	7
Very likeable	Moderately likeable	Somewhat likeable	Neither likeable nor unlikeable	Somewhat unlikeable	Moderately unlikeable	Very unlikeable
1	2	3	4	5	6	7
Very kind	Moderately kind	Somewhat kind	Neither kind nor unkind	Somewhat unkind	Moderately unkind	Very unkind
1	2	3	4	5	6	7
Very polite	Moderately polite	Somewhat polite	Neither polite nor rude	Somewhat rude	Moderately rude	Very rude
1	2	3	4	5	6	7
Very outgoing	Moderately outgoing	Somewhat outgoing	Neither outgoing nor quiet	Somewhat quiet	Moderately quiet	Very quiet
1	2	3	4	5	6	7
Very competent	Moderately competent	Somewhat competent	Neither competent nor incompetent	Somewhat incompetent	Moderately incompetent	Very incompetent
1	2	3	4	5	6	7
Very skilled	Moderately skilled	Somewhat skilled	Neither skilled nor unskilled	Somewhat unskilled	Moderately unskilled	Very unskilled
1	2	3	4	5	6	7

Very intelligent	Moderately intelligent	Somewhat intelligent	Neither intelligent nor unintelligent	Somewhat unintelligent	Moderately unintelligent	Very unintelligent
1	2	3	4	5	6	7
Very capable	Moderately capable	Somewhat capable	Neither capable nor incapable	Somewhat incapable	Moderately incapable	Very incapable
1	2	3	4	5	6	7
Very hardworking	Moderately hardworking	Somewhat hardworking	Neither hardworking nor lazy	Somewhat lazy	Moderately lazy	Very lazy
1	2	3	4	5	6	7
Very educated	Moderately educated	Somewhat educated	Neither educated nor uneducated	Somewhat uneducated	Moderately uneducated	Very uneducated
1	2	3	4	5	6	7
Very clean	Moderately clean	Somewhat clean	Neither clean nor dirty	Somewhat dirty	Moderately dirty	Very dirty
1	2	3	4	5	6	7
Very rich	Moderately rich	Somewhat rich	Neither rich nor poor	Somewhat poor	Moderately poor	Very poor
1	2	3	4	5	6	7
Very high-class	Moderately high-class	Somewhat high-class	Neither high-class nor low-class	Somewhat low-class	Moderately low-class	Very low-class
1	2	3	4	5	6	7
Very dominant	Moderately dominant	Somewhat dominant	Neither dominant nor submissive	Somewhat submissive	Moderately submissive	Very submissive
1	2	3	4	5	6	7

Very high-status	Moderately high-status	Somewhat high-status	Neither high- status nor low-status	Somewhat low-status	Moderately low-status	Very low-status
1	2	3	4	5	6	7

Very privileged	Moderately privileged	Somewhat privileged	Neither privileged nor under privileged	Somewhat underprivileged	Moderately underprivileged	Very underprivileged
1	2	3	4	5	6	7

Appendix N

Study 1: Interminority Other-Stereotype

Now we ask you to indicate your perceptions of the stereotypes that **Black/Asian Americans** have about **Asian/Black Americans**. For the following questions, *we are not interested in your personal beliefs*. Rather, we ask that you respond according to *the stereotypes that you believe exist in the Black/Asian American community* about the characteristics of Asian/Black Americans. You may well disagree with these stereotypes. Regardless, please just respond according to your perceptions of the stereotypes that are held in the broader Black/Asian American community.

According to the stereotypes in the broader Black/Asian American community, how are Asian/Black Americans perceived on the following traits or characteristics?

Very tolerant	Moderately tolerant	Somewhat tolerant	Neither tolerant nor prejudiced	Somewhat prejudiced	Moderately prejudiced	Very prejudiced
1	2	3	4	5	6	7
Very moral	Moderately moral	Somewhat moral	Neither moral nor immoral	Somewhat immoral	Moderately immoral	Very immoral
1	2	3	4	5	6	7
Very fair	Moderately fair	Somewhat fair	Neither fair nor unfair	Somewhat unfair	Moderately unfair	Very unfair
1	2	3	4	5	6	7
Very trustworthy	Moderately trustworthy	Somewhat trustworthy	Neither trustworthy nor untrustworthy	Somewhat untrustworthy	Moderately untrustworthy	Very untrustworthy
1	2	3	4	5	6	7
Very unaggressive	Moderately unaggressive	Somewhat unaggressive	Neither unaggressive nor aggressive	Somewhat aggressive	Moderately aggressive	Very aggressive
1	2	3	4	5	6	7
Very law-abiding	Moderately law-abiding	Somewhat law-abiding	Neither law-abiding nor criminal	Somewhat criminal	Moderately criminal	Very criminal

1	2	3	4	5	6	7
Very friendly	Moderately friendly	Somewhat friendly	Neither friendly nor unfriendly	Somewhat unfriendly	Moderately unfriendly	Very unfriendly
1	2	3	4	5	6	7
Very warm	Moderately warm	Somewhat warm	Neither warm nor cold	Somewhat cold	Moderately cold	Very cold
1	2	3	4	5	6	7
Very likeable	Moderately likeable	Somewhat likeable	Neither likeable nor unlikeable	Somewhat unlikeable	Moderately unlikeable	Very unlikeable
1	2	3	4	5	6	7
Very kind	Moderately kind	Somewhat kind	Neither kind nor unkind	Somewhat unkind	Moderately unkind	Very unkind
1	2	3	4	5	6	7
Very polite	Moderately polite	Somewhat polite	Neither polite nor rude	Somewhat rude	Moderately rude	Very rude
1	2	3	4	5	6	7
Very outgoing	Moderately outgoing	Somewhat outgoing	Neither outgoing nor quiet	Somewhat quiet	Moderately quiet	Very quiet
1	2	3	4	5	6	7
Very competent	Moderately competent	Somewhat competent	Neither competent nor incompetent	Somewhat incompetent	Moderately incompetent	Very incompetent
1	2	3	4	5	6	7
Very skilled	Moderately skilled	Somewhat skilled	Neither skilled nor unskilled	Somewhat unskilled	Moderately unskilled	Very unskilled
1	2	3	4	5	6	7

Very intelligent	Moderately intelligent	Somewhat intelligent	Neither intelligent nor unintelligent	Somewhat unintelligent	Moderately unintelligent	Very unintelligent
1	2	3	4	5	6	7

Very capable	Moderately capable	Somewhat capable	Neither capable nor incapable	Somewhat incapable	Moderately incapable	Very incapable
1	2	3	4	5	6	7

Very hardworking	Moderately hardworking	Somewhat hardworking	Neither hardworking nor lazy	Somewhat lazy	Moderately lazy	Very lazy
1	2	3	4	5	6	7

Very educated	Moderately educated	Somewhat educated	Neither educated nor uneducated	Somewhat uneducated	Moderately uneducated	Very uneducated
1	2	3	4	5	6	7

Very clean	Moderately clean	Somewhat clean	Neither clean nor dirty	Somewhat dirty	Moderately dirty	Very dirty
1	2	3	4	5	6	7

Very rich	Moderately rich	Somewhat rich	Neither rich nor poor	Somewhat poor	Moderately poor	Very poor
1	2	3	4	5	6	7

Very high-class	Moderately high-class	Somewhat high-class	Neither high-class nor low-class	Somewhat low-class	Moderately low-class	Very low-class
1	2	3	4	5	6	7

Very dominant	Moderately dominant	Somewhat dominant	Neither dominant nor submissive	Somewhat submissive	Moderately submissive	Very submissive
1	2	3	4	5	6	7

Very high-status	Moderately high-status	Somewhat high-status	Neither high- status nor low-status	Somewhat low-status	Moderately low-status	Very low-status
1	2	3	4	5	6	7

Very privileged	Moderately privileged	Somewhat privileged	Neither privileged nor under privileged	Somewhat underprivileged	Moderately underprivileged	Very underprivileged
1	2	3	4	5	6	7

Appendix O

Study 1: Majority Other-Stereotype

Now we ask you to indicate your perceptions of the stereotypes that **Black/Asian Americans** have about **White Americans**. For the following questions, *we are not interested in your personal beliefs*. Rather, we ask that you respond according to *the stereotypes that you believe exist in the Black/Asian American community* about the characteristics of White Americans. You may well disagree with these stereotypes. Regardless, please just respond according to your perceptions of the stereotypes that are held in the broader Black/Asian American community.

According to the stereotypes in the broader Black/Asian American community, how are White Americans perceived on the following traits or characteristics?

			Neither tolerant nor prejudiced			
Very tolerant	Moderately tolerant	Somewhat tolerant		Somewhat prejudiced	Moderately prejudiced	Very prejudiced
1	2	3	4	5	6	7
Very moral	Moderately moral	Somewhat moral	Neither moral nor immoral	Somewhat immoral	Moderately immoral	Very immoral
1	2	3	4	5	6	7
Very fair	Moderately fair	Somewhat fair	Neither fair nor unfair	Somewhat unfair	Moderately unfair	Very unfair
1	2	3	4	5	6	7
			Neither trustworthy nor untrustworthy			
Very trustworthy	Moderately trustworthy	Somewhat trustworthy		Somewhat untrustworthy	Moderately untrustworthy	Very untrustworthy
1	2	3	4	5	6	7
			Neither unaggressive nor aggressive			
Very unaggressive	Moderately unaggressive	Somewhat unaggressive		Somewhat aggressive	Moderately aggressive	Very aggressive
1	2	3	4	5	6	7
			Neither law-abiding nor criminal			
Very law-abiding	Moderately law-abiding	Somewhat law-abiding		Somewhat criminal	Moderately criminal	Very criminal
1	2	3	4	5	6	7

Very friendly	Moderately friendly	Somewhat friendly	Neither friendly nor unfriendly	Somewhat unfriendly	Moderately unfriendly	Very unfriendly
1	2	3	4	5	6	7
Very warm	Moderately warm	Somewhat warm	Neither warm nor cold	Somewhat cold	Moderately cold	Very cold
1	2	3	4	5	6	7
Very likeable	Moderately likeable	Somewhat likeable	Neither likeable nor unlikeable	Somewhat unlikeable	Moderately unlikeable	Very unlikeable
1	2	3	4	5	6	7
Very kind	Moderately kind	Somewhat kind	Neither kind nor unkind	Somewhat unkind	Moderately unkind	Very unkind
1	2	3	4	5	6	7
Very polite	Moderately polite	Somewhat polite	Neither polite nor rude	Somewhat rude	Moderately rude	Very rude
1	2	3	4	5	6	7
Very outgoing	Moderately outgoing	Somewhat outgoing	Neither outgoing nor quiet	Somewhat quiet	Moderately quiet	Very quiet
1	2	3	4	5	6	7
Very competent	Moderately competent	Somewhat competent	Neither competent nor incompetent	Somewhat incompetent	Moderately incompetent	Very incompetent
1	2	3	4	5	6	7
Very skilled	Moderately skilled	Somewhat skilled	Neither skilled nor unskilled	Somewhat unskilled	Moderately unskilled	Very unskilled
1	2	3	4	5	6	7

Very intelligent	Moderately intelligent	Somewhat intelligent	Neither intelligent nor unintelligent	Somewhat unintelligent	Moderately unintelligent	Very unintelligent
1	2	3	4	5	6	7
Very capable	Moderately capable	Somewhat capable	Neither capable nor incapable	Somewhat incapable	Moderately incapable	Very incapable
1	2	3	4	5	6	7
Very hardworking	Moderately hardworking	Somewhat hardworking	Neither hardworking nor lazy	Somewhat lazy	Moderately lazy	Very lazy
1	2	3	4	5	6	7
Very educated	Moderately educated	Somewhat educated	Neither educated nor uneducated	Somewhat uneducated	Moderately uneducated	Very uneducated
1	2	3	4	5	6	7
Very clean	Moderately clean	Somewhat clean	Neither clean nor dirty	Somewhat dirty	Moderately dirty	Very dirty
1	2	3	4	5	6	7
Very rich	Moderately rich	Somewhat rich	Neither rich nor poor	Somewhat poor	Moderately poor	Very poor
1	2	3	4	5	6	7
Very high-class	Moderately high-class	Somewhat high-class	Neither high-class nor low-class	Somewhat low-class	Moderately low-class	Very low-class
1	2	3	4	5	6	7
Very dominant	Moderately dominant	Somewhat dominant	Neither dominant nor submissive	Somewhat submissive	Moderately submissive	Very submissive
1	2	3	4	5	6	7

Very high-status	Moderately high-status	Somewhat high-status	Neither high- status nor low-status	Somewhat low-status	Moderately low-status	Very low-status
1	2	3	4	5	6	7

Very privileged	Moderately privileged	Somewhat privileged	Neither privileged nor under privileged	Somewhat underprivileged	Moderately underprivileged	Very underprivileged
1	2	3	4	5	6	7

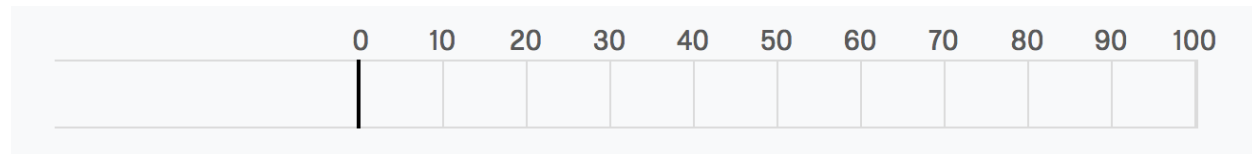
Appendix R

Study 1: Interminority Other-Evaluation

Now we ask you to indicate your perceptions of how favorably **Black/Asian Americans** view **Asian/Black Americans**. Once again, *we are not interested in your personal beliefs*. Rather, we ask that you respond according to *how favorably you believe the broader Black/Asian American community* views Asian/Black Americans.

Using the scale presented below, please select a number between 0° and 100° to indicate how favorably you believe Black/Asian Americans view Asian/Black Americans:

- 100° extremely favorable
- 90° very favorable
- 80° quite favorable
- 70° fairly favorable
- 60° slightly favorable
- 50° neither favorable nor unfavorable
- 40° slightly unfavorable
- 30° fairly unfavorable
- 20° quite unfavorable
- 10° very unfavorable
- 0° extremely unfavorable



Appendix T

Study 2: Consent Form



UNIVERSITY
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Study Information and Consent Form

Study Title: Survey of People’s Perceptions of How Their Ethnic Group is Viewed
Principal Researcher: Matthew Quesnel, Ph.D. Student, Department of Psychology
Contact Number: 1 (204) 474-6936 (lab); email: umquesne@myumanitoba.ca

Faculty Supervisor: Dr. Jacquie Vorauer, Professor, Department of Psychology
Contact Number: 1 (204) 474-8250; email: vorauer@cc.umanitoba.ca

This study is being conducted by Matthew Quesnel under the supervision of Dr. J. Vorauer, a faculty member in the Department of Psychology. It examines people’s perceptions of how different ethnic groups view each other. The information that follows describes the study and what’s involved in your possible participation.

It is strongly recommended that you print this consent form and keep it for your records and reference. At the very least, please keep a record of the study name and the contact emails of the researchers. This consent form is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask via the contact information provided at the top of this form. Please take time to read this carefully and to understand any accompanying information.

If you choose to participate, you will be asked to describe how you feel your ethnic group is viewed by members of other ethnic groups and how you view other groups. You will also be asked to provide basic demographic information and to answer some questions about yourself. At the end of the study, you will be given an explanation of our hypotheses and the methods that we used. The study should take approximately 10 minutes and you will receive \$0.75 for your participation.

Participation in this study is voluntary and you may end your participation at any time without reprisal or loss of payment. However, in order to receive your payment, you must proceed to the end of the survey (after the feedback form) in order to obtain the code for this study and submit it. You may also refuse to answer any questions that you do not wish to answer. If you decide to opt out of the study after completing all or part of the survey, you will have the option to submit your responses to us (by pressing the “next” button at the bottom of the webpage) or to have your responses deleted by indicating so to the experimenter (email umquesne@myumanitoba.ca) with the subject heading: Perceptions of How Groups are Viewed. Because you are anonymous, if you ask us to delete your data, we will need to work with you using information such as time of completion and the nature of the responses that you did enter to identify your

data. If you would like us to delete your data you must contact the experimenter within one week of your participation.

We would like to emphasize that all of your responses will be kept completely confidential and anonymous. Your answers to questions in this study are collected by Qualtrics™. Risks to confidentiality are minimal and are similar to those associated with many e-mail and social media websites such as Hotmail and Facebook. Only the primary investigators, or qualified researchers who request it for scholarly purposes, will have access to the (anonymous) raw data from this study. There are no plans to destroy the data, which will be completely anonymous.

We intend to present the findings of the study in the principal researcher's doctoral dissertation, at an academic conference and in an academic journal. Only aggregate results (i.e., averages across large numbers of participants) will be reported in any publication of the findings. The data, which will be anonymous, will be stored on password-protected computers in locked laboratory rooms in the Duff Roblin building and on the principal investigator's password-protected personal computers.

The University of Manitoba Research Ethics Board(s) may also require access to your research records for safety and quality assurance purposes.

At the end of the survey you will be provided with an explanation of the purpose of this study in further detail. A summary of the findings will be made available at the end of April, 2019. You will not receive individualized feedback about your responses. Instead the aggregated summary will describe the average responses of participants. An aggregated summary of results will be emailed to participants upon request by August 2019. To receive a summary, email umquesne@myumanitoba.ca with the subject heading: Perceptions of How Groups are Viewed.

This research has been approved by the Psychology/Sociology Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Coordinator (HEC) at 1-204-474-7122, or email humanethics@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

By clicking "Agree" below you will indicate that you have understood to your satisfaction the information regarding participation in the research project and agree to participate. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation (by sending an email to umquesne@myumanitoba.ca).

Agree

Decline

Appendix W**Study 2: Interest in Interminority Contact and Solidarity**

To what extent are you interested in interacting with Black/Asian Americans?

Not at all interested	Very little interest	Slightly interested	Somewhat interested	Moderately interested	Very interested	Extremely interested
1	2	3	4	5	6	7

To what extent are you interested in working with Black/Asian Americans to address issues of discrimination and inequality faced by both groups?

Not at all interested	Very little interest	Slightly interested	Somewhat interested	Moderately interested	Very interested	Extremely interested
1	2	3	4	5	6	7

Appendix X

Study 2: Meta-Perception of Outgroup's Interest in Interminority Contact and Solidarity

To what extent do you think the average Black/Asian American is interested in interacting with Asian/Black Americans?

Not at all interested	Very little interest	Slightly interested	Somewhat interested	Moderately interested	Very interested	Extremely interested
1	2	3	4	5	6	7

To what extent do you think the average Black/Asian American is interested in working with Asian/Black Americans to address issues of discrimination and inequality faced by both groups?

Not at all interested	Very little interest	Slightly interested	Somewhat interested	Moderately interested	Very interested	Extremely interested
1	2	3	4	5	6	7

Appendix Y

Study 2 and 3: Strength of Ethnic Identity

We are all members of different social groups or social categories. We would like you to consider your racial or ethnic background in responding to the following statements. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please indicate your agreement with each of the following statements.

Overall, my race/ethnicity has very little to do with how I feel about myself.

Strongly disagree	Moderately disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Moderately agree	Strongly agree
1	2	3	4	5	6	7

The racial/ethnic group I belong to is an important reflection of who I am.

Strongly disagree	Moderately disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Moderately agree	Strongly agree
1	2	3	4	5	6	7

My race/ethnicity is unimportant to my sense of what kind of a person I am.

Strongly disagree	Moderately disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Moderately agree	Strongly agree
1	2	3	4	5	6	7

In general, belonging to my race/ethnicity is an important part of my self-image.

Strongly disagree	Moderately disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Moderately agree	Strongly agree
1	2	3	4	5	6	7

Appendix Z

Study 3: Consent Form



UNIVERSITY
OF MANITOBA

Study Information and Consent Form

Study Title: Social Perceptions in First Meeting Situations

Principal Researcher: Matthew Quesnel, Ph.D. Student, Department of Psychology

Contact Number: 1 (204) 474-6936 (lab); email: umquesne@myumanitoba.ca

Faculty Supervisor: Dr. Jacquie Vorauer, Professor, Department of Psychology

Contact Number: 1 (204) 474-8250; email: vorauer@cc.umanitoba.ca

This study is being conducted by Matthew Quesnel under the supervision of Dr. J. Vorauer, a faculty member in the Department of Psychology. It examines social perception in first meeting situations, with a focus on interactions between people who have the same or different ethnic backgrounds. The information that follows describes the study and what's involved in your possible participation.

It is strongly recommended that you print this consent form and keep it for your records and reference. At the very least, please keep a record of the study name and the contact emails of the researchers. This consent form is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask via the contact information provided at the top of this form. Please take time to read this carefully and to understand any accompanying information.

If you choose to participate, you will be asked to provide some information about yourself (e.g., age, ethnic background, personal qualities), which will be exchanged with another person currently completing the study. After this, you will engage in a 5-minute back-and-forth discussion with the other person on a topic of interest to the both of you. Following the interaction, you will be asked to answer a few questions about the interaction. At the end of the study, you will be given an explanation of our hypotheses and the methods that we used. The study should take approximately 20 minutes and you will receive \$2.50 for your participation.

Participation in this study is voluntary and you may end your participation at any time without reprisal or loss of payment. However, in order to receive your payment, you must proceed to the end of the survey (after the feedback form) in order to obtain the code for this study and submit it. You may also refuse to answer any questions that you do not wish to answer. If you decide to opt out of the study after completing all or part of the survey, you will have the option to submit your responses to us (by pressing the "next" button at the bottom of the webpage) or to have your responses deleted by indicating so to the experimenter (email umquesne@myumanitoba.ca) with the subject heading: Social Perceptions in First Meeting Situations. Because you are anonymous, if you ask us to delete your data, we will need

to work with you using information such as time of completion and the nature of the responses that you did enter to identify your data.

We would like to emphasize that all of your responses will be kept completely confidential and anonymous. Your answers to questions in this study are collected by Qualtrics™. Risks to confidentiality are minimal and are similar to those associated with many e-mail and social media websites such as Hotmail and Facebook. Only the primary investigators, or qualified researchers who request it for scholarly purposes, will have access to the (anonymous) raw data from this study. There are no plans to destroy the data, which will be completely anonymous.

We intend to present the findings of the study at an academic conference and in an academic journal. Only aggregate results (i.e., averages across large numbers of participants) will be reported in any publication of the findings. The data, which will be anonymous, will be stored on password-protected computers in locked laboratory rooms in the Duff Roblin building and on the principal investigator's password-protected personal computers.

The University of Manitoba Research Ethics Board(s) may also require access to your research records for safety and quality assurance purposes.

At the end of the survey you will be provided with an explanation of the purpose of this study in further detail. An aggregated summary of results will be emailed to participants upon request by August 2019. To receive a summary, email umquesne@myumanitoba.ca with the subject heading: Social Perceptions in First Meeting Situations. You will not receive individualized feedback about your responses. Instead the aggregated summary will describe the average responses of participants.

This research has been approved by the Psychology/Sociology Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Coordinator (HEC) at 1-204-474-7122, or email humanethics@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

By clicking “Agree” below you will indicate that you have understood to your satisfaction the information regarding participation in the research project and agree to participate. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation (by sending an email to umquesne@myumanitoba.ca).

Agree

Decline

Appendix AA

Study 3: Study Information

Now we would like to provide you with more information about the study.

About the Study

This study examines social perception in first meeting situations, with a **focus on interactions between people who have the same or different ethnic backgrounds**. As such, in the present study you will be interacting with another person who is also completing the study. The two of you will begin by exchanging personal information and later engage in a back-and-forth discussion via an online text-based chat application that is part of the survey.

In the first part of the study, you will fill out and exchange personal information with your partner. This part will not be a back-and-forth conversation but instead an exchange of information. You will then be asked to answer a few questions about yourself and your perceptions of your partner and how you believe they feel about you.

In the second part of the study, you will have a back-and-forth discussion via an online text-based chat application with your partner on one of five topics. You will both have some say in which topic you discuss. Prior to the interaction you will both rank the topics in order of your preference for which to discuss: the topic you and your partner are most interested in discussing will be chosen.

Appendix BB

Study 3: Participant Personal Information Sheet

Please fill out the following personal information. Once you are done, we will connect you with another participant and **we will exchange this information with your partner**—you will get to read your partner’s answers and they will read yours.

Personal Information

First Name: _____

Demographic Information

Age: _____

Gender:

_____ Male

_____ Female

_____ or I identify my gender as (specify) _____

Ethnic Group: Please indicate how you would best describe your ethnic or cultural background by checking one of the general categories presented below.

_____ Asian American (e.g., Chinese, Japanese, Korean)

_____ Black/African American

_____ Indigenous (e.g., Native American, Native Alaskan, Native Hawaiian)

_____ Latin American (e.g., Chilean, Costa Rican, Mexican)

_____ Métis

_____ Middle East and North Africa (e.g., Egyptian, Iranian, Israeli)

_____ White/European (e.g., English, French, Scottish, Irish)

_____ Other (please specify: _____)

Personal Qualities

What personal qualities are important to how you see yourself?

1. _____

2. _____

3. _____

4. _____

What do you consider to be your negative qualities?

1. _____
2. _____
3. _____
4. _____

Appendix CC

Study 3: Waiting Instructions

We are now connecting you with another person who will be your partner for the study.

There may be a short delay while we set this up. Thank-you for your patience! It should not take more than a minute.

Connecting

Appendix DD

Study 3: Ostensible Partner's Personal Information Sheet

Your partner's information is below.

Personal Information

First Name: Jade/Michael

Demographic information

Age: 30

Gender:

Male

Female

or I identify my gender as (specify) _____

Ethnic Group: Please indicate how you would best describe your ethnic or cultural background by checking one of the general categories presented below.

Asian American (e.g., Chinese, Japanese, Korean)

Black/African American

Indigenous (e.g., Native American, Native Alaskan, Native Hawaiian)

Latin American (e.g., Chilean, Costa Rican, Mexican)

Métis

Middle East and North Africa (e.g., Egyptian, Iranian, Israeli)

White/European (e.g., English, French, Scottish, Irish)

Other (please specify: _____)

Personal Qualities

What personal qualities are important to how you see yourself?

1. good at "reading" people

2. optimistic

3. good sense of humor

4. like the outdoors

What do you consider to be your negative qualities?

1. shy

2. too sensitive?
3. not always on time for things
4. procrastinater!!

Appendix EE

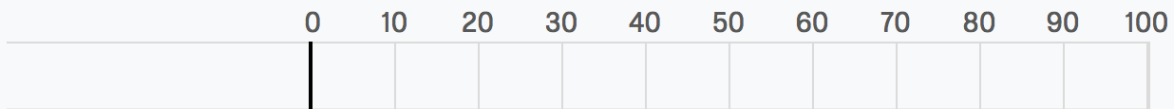
Study 3: Individual-Level Meta-Evaluations

Now we want to know how you think your partner feels about you.

We encourage you to speak your mind, and to be as honest as possible. Remember that your responses on this question will be kept completely confidential. Moreover, there are of course no right or wrong answers to these questions. What matters are your own thoughts and feelings, whatever they may be.

Using the scale presented below, please select a number between 0° and 100° to indicate how favorably you think your partner feels toward you:

- 100° extremely favorable
- 90° very favorable
- 80° quite favorable
- 70° fairly favorable
- 60° slightly favorable
- 50° neither favorable nor unfavorable
- 40° slightly unfavorable
- 30° fairly unfavorable
- 20° quite unfavorable
- 10° very unfavorable
- 0° extremely unfavorable



Appendix FF**Study 3: Individual-Level Other-Evaluation**

Now we ask you to indicate how you feel about your partner. Again, we encourage you to speak your mind, and to be as honest as possible. Remember that your responses on this question will be kept completely confidential. Moreover, there are of course no right or wrong answers to these questions. What matters are your own thoughts and feelings, whatever they may be.

Using the scale presented below, please select a number between 0° and 100° to indicate how favorably you feel toward your partner:

- 100° extremely favorable
- 90° very favorable
- 80° quite favorable
- 70° fairly favorable
- 60° slightly favorable
- 50° neither favorable nor unfavorable
- 40° slightly unfavorable
- 30° fairly unfavorable
- 20° quite unfavorable
- 10° very unfavorable
- 0° extremely unfavorable



Appendix GG

Study 3: Discussion Topic Interest

In the upcoming back-and-forth discussion, you will discuss one of the five following topics with your partner. Before the discussion and before you choose a topic, we would like to know how interested you are discussing each of the following topics.

How much would you like to discuss each topic with your partner:

1. Whether ethnic minority groups should work together to solve issues of discrimination and inequality.

Not at all interested	Very little interest	Slightly interested	Somewhat interested	Moderately interested	Very interested	Extremely interested
1	2	3	4	5	6	7

2. Whether there should be stronger restrictions on corporate donations to political parties and candidates.

Not at all interested	Very little interest	Slightly interested	Somewhat interested	Moderately interested	Very interested	Extremely interested
1	2	3	4	5	6	7

3. Whether the government should impose stronger restrictions on abortion or prohibit it altogether.

Not at all interested	Very little interest	Slightly interested	Somewhat interested	Moderately interested	Very interested	Extremely interested
1	2	3	4	5	6	7

4. Whether businesses should be required to have at least one woman on their board of directors.

Not at all interested	Very little interest	Slightly interested	Somewhat interested	Moderately interested	Very interested	Extremely interested
1	2	3	4	5	6	7

5. Whether stronger restrictions should be imposed on industry and corporations to counter climate change.

Not at all interested	Very little interest	Slightly interested	Somewhat interested	Moderately interested	Very interested	Extremely interested
1	2	3	4	5	6	7

Appendix HH

Study 3: Discussion Topic Choice

Now we ask you to please rank the discussion topics in order of your preference for which you are most interested in discussing. Rank 1 should be the topic you would most like to discuss and Rank 5 the topic you would least like to discuss. The topic you and your partner are most interested in discussing on average will be chosen.

Drag and drop the topics below into the order in which you are most interested in discussing them.

Whether ethnic minority groups should work together to solve issues of discrimination and inequality. 1

Whether there should be stronger restrictions on corporate donations to political parties and candidates. 2

Whether the government should impose stronger restrictions on abortion or prohibit it altogether. 3

Whether businesses should be required to have at least one woman on their board of directors. 4

Whether stronger restrictions should be imposed on industry and corporations to counter climate change. 5

Appendix II

Study 3: Suspicion Check

At this point we are interested in understanding your initial impressions of your partner in the study based on what you have learned about them so far. Please outline any thoughts that you have about your partner in the space provided below.

Appendix JJ

Study 3: Topic Opinions

Before the discussion with your partner, we are interested to understand your opinions on the social issues covered by the discussion topics.

Your responses to these questions will remain completely confidential and will not be shared with your partner.

1. Ethnic minority groups should work together to solve issues of discrimination and inequality.

Strongly disagree	Moderately disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Moderately agree	Strongly agree
1	2	3	4	5	6	7

2. There should be stronger restrictions on corporate donations to political parties and candidates.

Strongly disagree	Moderately disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Moderately agree	Strongly agree
1	2	3	4	5	6	7

3. The government should impose stronger restrictions on abortion or prohibit it altogether.

Strongly disagree	Moderately disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Moderately agree	Strongly agree
1	2	3	4	5	6	7

4. Businesses should be required to have at least one woman on their board of directors.

Strongly disagree	Moderately disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Moderately agree	Strongly agree
1	2	3	4	5	6	7

5. Stronger restrictions should be imposed on industry and corporations to counter climate change.

Strongly disagree	Moderately disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Moderately agree	Strongly agree
1	2	3	4	5	6	7