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Abstract

This study investigates the impact of intergroup contact of White British adults (N=192) on the language used when describing their recent interactions with Asian British people. Specifically, we assessed the role of different forms of intergroup contact (i.e., cross-group friendship, positive and negative, direct and extended contact) on the abstraction of negative terms used by White British people, as a linguistic measure of outgroup derogation. As expected, the frequency of direct negative intergroup contact was associated with higher negative language abstraction in depicting Asian British people. However, this association was weaker for White British people with higher levels of positive direct and extended intergroup contacts compared to those with lower levels of positive direct and extended contact. Overall, results emphasize the importance of independently analyzing the impact of positive and negative intergroup contact experiences, as well as understanding how they interact with each other in the communication of intergroup discrimination.

Key words

immigration, intergroup contact, language abstraction, diary study, prejudice

Asian British people, mostly with Indian, Pakistani, or Bangladeshi heritage, form the second largest percentage of the population in England and Wales (Census, 2021; and they grew the most in absolute percentage points in the last decades (from 5.1% of the population in 2001, to 7.8% in 2011, to 9.3% in 2021; Office for National Statistics, 2022). In the UK, such demographic statistics, and changes over time, are a topic of ongoing debates about the impact of ethnic neighborhood composition on overall social cohesion, trust and prejudice (Cheong et al., 2007; Laurence, 2014). While some research in political science (e.g., Putnam, 2007) found that ethnic diversity was associated with increased distrust between groups, intergroup contact studies highlighted a crucial missing variable in previous research, showing that positive direct, or face-to-face contact between majority and ethnic minority groups promotes more positive intergroup relations and more inclusive societies (Pettigrew & Tropp, 2006).

However, as Schäfer et al. (2021) have contended, positive forms of intergroup contact cannot and should not be viewed in isolation from negative contact experiences, given that both are a feature of most people's everyday lives. Negative contact experiences, such as hostile and discriminatory interactions, tend to be more emotionally charged and impactful for individuals than positive ones, reinforcing outgroup stereotypes and prejudice (Barlow et al., 2012). In contrast, positive intergroup contact is more frequent and common than negative experiences, contributing in the long-run to overcoming the effects of negative experiences (Barlow et al., 2019; Paolini et al., 2014). Overall, evidence suggests that efforts to improve intergroup relations should not focus solely on increasing positive contact, but also on minimizing negative contact experiences to create more inclusive societies.

Furthermore, various forms of indirect contact, such as extended contact (knowing that an ingroup member has a close relationship with an outgroup member) and mass-mediated contact

(media portrayals of different groups), also affect intergroup relations (Mastro & Greenberg, 2000; Voci & Hewstone, 2003). Both indirect and direct forms of contact influence individuals' perceptions, attitudes, and behaviors toward other social groups (Arnadottir et al., 2018). Through indirect contact, the way information is reported about outgroup members' influences, impressions. and evaluations of them whereas, in direct contact, the *communication* between group members influences the mutual impression formation process. Thus, in both forms of contact, language plays a key role in spreading, justifying and perpetuating, or indeed challenging negative evaluations of outgroup members.

The literature on the so-called 'linguistic intergroup bias' has shown that individuals who hold negative attitudes towards members of certain outgroups tend to use abstract language when describing negative behaviors exhibited by these groups (*negative linguistic abstraction*), while using concrete language to describe these outgroups' positive behaviors (Maass, 1999). The use of negative abstract language implies that individuals may be more inclined to generalize negative rather than positive information about outgroup members, reducing the likelihood of changing pre-existing negative evaluations about them. In this vein, a consistent corpus of research has shown that negative linguistic abstraction can be conceived as an indirect measure of outgroup derogation (for a review, see Rubini et al., 2014).

Therefore, it is crucial to understand better the association between different forms of intergroup contact and the language people use to describe their intergroup experiences, and to focus especially on the abstraction of negative linguistic terms used to describe the outgroup, since their use constitutes a barrier to reducing discrimination towards minority groups. The way individuals describe their intergroup contact experiences and the language they use to communicate those experiences could be associated with the perpetuation or reduction of

outgroup derogation (Prati et al., 2020). In the present research we will examine for majority group members the association between both type of contact (direct and extended) and valence of contact (positive and negative) *experienced* with people from minority ethnic background and the language *used* to describe them, specifically linguistic abstraction. We do this by investigating majority members' written descriptions of intergroup contact as an indirect indicator of biased communication.

The Role of Intergroup Contact Valence on Prejudice Reduction

Allport's (1954) Contact Hypothesis suggests that intergroup contact, particularly under specific, so-called optimal conditions (i.e., groups have equal status and common goals, there is intergroup cooperation, and institutional support for contact), can reduce discrimination toward outgroup members. This approach has been largely upheld and empirically supported, albeit modestly, even when Allport's optimal conditions were not meet (for a meta-analysis, see Pettigrew & Tropp, 2006, 2011). In this regard, research has shown reliably that many social and psychological factors can facilitate or inhibit intergroup contact and its benefits. Among the most important factors, individuals' ideologies such as preference for hierarchical social structures and inequality (Social Dominance Orientation, SDO: Sidanius & Pratto, 1999) and preference for traditional social norms, stability and order (Right-Wing Authoritarianism, RWA: Altemeyer, 1991) independently reduce positive interactions and attitudes towards disadvantaged outgroups (e.g., Cohrs & Stelzl, 2010). In contrast, knowing that fellow ingroup members do engage in intergroup contact encourages intergroup encounters (Christ et al., 2014).

Yet, most of the research has focused on positive forms of contact (e.g., positive small talk, smiles, or also intimate comforting conversations), and negative forms of intergroup contact

(e.g., awkward or even hostile and threatening interactions) have only recently received attention as experiences that may weaken or even inhibit the beneficial effects of positive intergroup contact. Barlow and her colleagues (2012) suggested a positive-negative asymmetry of intergroup contact effects, finding a greater prejudice-increasing effect for negative contact than a prejudice-decreasing effect for positive contact.

However, subsequent research has shown mixed results. Some studies supported Barlow et al. in finding evidence of a stronger effect of negative than positive contact (Alperin et al., 2014; Dhont & Van Hiel, 2009; Graf et al., 2014; Paolini et al., 2010, 2014; Techakesari et al., 2015), while other studies found no substantial differences in the effects of positive and negative contact (Árnadóttir et al., 2018; Mazziotta et al., 2015), and yet other studies even found the reverse, larger effects of positive intergroup contact than negative contact (Brylka et al., 2016; Mähönen, & Jasinskaja-Lahti, 2016; Reimer et al., 2017). Given the current gaps in the literature, the present research aims to tackle the role of differently valenced contact, in the form of both direct and indirect contact, on a measure of discrimination less subject to socially desirable responding, namely language abstraction. Next, we outline the impact of different types of intergroup contact, and then provide a more detailed analysis of linguistic outgroup discrimination.

The Variety of Indirect Forms of Intergroup Contact

Direct contact involves face-to-face interactions, with cross-group friendships being a high-quality form of this contact (Davies et al., 2011). Yet, direct interactions between different groups can sometimes be rare, even impossible, especially in segregated settings. In today's globalized world, indirect intergroup contact, which involves gaining information about outgroup

members even without direct interaction, is both common and influential. The earliest study of indirect contact by Wright et al. (1997) suggests that knowing about, or seeing, an ingroup member having a relationship (or being friends) with an outgroup member can foster positive outgroup attitudes. This is known as extended contact or extended friendship (Dovidio et al., 2011). Comprehensive reviews (Brown & Paterson, 2016; Capozza et al., 2014) and a meta-analysis (Zhou et al., 2019) show that such extended contact promotes the broadening of positive sentiments from one outgroup individual to the entire group.

Research by Christ et al. (2010) suggested that both extended and face-to-face contact reinforced positive attitudes over time. While direct contact remains ideal, indirect methods have proven to be similarly effective. In a recent multi-study approach, Bağcı et al. (2021) found that British majority members' positive extended contact experiences with Turkish migrants predicted reduced outgroup bias and that negative extended encounters had no effect on attitudes toward Turkish migrants. Moreover, Arnadottir et al. (2018) showed that the positive effects of direct and extended contact were generally comparable to the negative effects of negative contact, and Zhou et al.'s (2019) meta-analysis reported that the effect size of indirect contact was equivalent to that of direct contact. Overall, as complementary strategies (Vezzali et al., 2014), both direct and indirect forms of intergroup contact should be examined to better understand the complexity of the phenomenon and its implications for reducing intergroup discrimination.

Linguistic Outgroup Discrimination

Extensive research has shown that language plays a very powerful role in transmitting and maintaining intergroup discrimination (Maass, 1999; Maass & Arcuri, 1996; Reid & Ng, 1999).

Linguistic discrimination can be detected in a more subtle way than using positive and negative terms to describe outgroup members, by assessing the uncontrolled use of language abstraction. Based on the *Linguistic Category Model* (LCM) proposed by Semin and Fiedler (1988), the language used in interpersonal interactions can be classified into four categories based on the degree of abstractness. These categories, in order from the least to the most abstract, are: Descriptive action verbs (e.g., A hugs B), interpretative action verbs (e.g., A seduces B), state verbs (e.g., A likes B), and adjectives (e.g., A is kind). These varying levels of abstraction carry distinct cognitive implications. Positive and negative abstract terms (e.g., A is kind/hostile) compared to concrete ones (e.g., A helped/hit someone) imply more information about the person involved and less about the specific situation. Abstract information is perceived as more enduring and less verifiable than concrete information, and the level of abstraction is also perceived as an estimate of how likely it is that the event will be repeated in the future increases (i.e., generalization; Semin & Fiedler 1988).

Consequently, the use of terms at different levels of abstraction can result in significantly different representations of the same situation (Semin & Fiedler, 1988). Specifically, people tend to describe undesirable behaviors by outgroup members in rather abstract terms, whereas desirable behaviors by outgroup members are usually depicted in more concrete terms. This tendency transmits an unfavorable representation of outgroup members, thus contributing to the maintenance of negative outgroup stereotypes and discrimination. This form of linguistic outgroup derogation has been consistently found in different contexts and towards different groups, even with minimal groups (Moscatelli et al., 2008, 2014; Moscatelli & Rubini, 2011; Rubini et al., 2007; Rubini & Menegatti, 2008). These studies highlighted a strong tendency toward linguistic intergroup discrimination, which can be conceived as a dual faceted

phenomenon resulting in both linguistic ingroup favoritism (e.g., depiction of ingroup behaviors in more abstract positive terms, as well as more concrete negative terms, than outgroup behaviors) and outgroup derogation (e.g., depiction of outgroup behaviors in more abstract negative terms, and more concrete positive terms, than ingroup behaviors).

Because people do not usually exert intentional control on linguistic abstraction, and are not aware of the implications of using different types of predicates (Franco & Maass, 1999), linguistic outgroup derogation (reflected in the use of negative terms at a high linguistic abstraction) arguably represents an unintended strategy for achieving distinctiveness of one's own group, and provides a reliable, unobtrusive measure of discrimination (Maass et al., 2000). In this vein, negative language abstraction in depicting outgroup members can be employed as a measure of linguistic outgroup discrimination. Research has indeed examined the role of intergroup contact and other strategies promoted to reduce social prejudice on linguistic outgroup discrimination. For example, the portrayal of migrants through multiple categorization (e.g., they are seen as ingroup members on one dimension, but outgroup members on another), recognized as a strategy to diminish prejudice, decreases linguistic discrimination against them (Prati et al., 2015). However, the impact of multiple categorization is contingent upon intergroup contact. The influence of multiple categorization is more pronounced among individuals with limited prior contact with migrants, whereas those who reported having frequent and positive contact with migrants did not show an effect of multiple categorization, indicating a ceiling effect whereby high contact can reduce linguistic discrimination (Prati et al., 2015).

Moreover, Prati et al. (2020) showed the effects of recalling differently-valenced intergroup contact on linguistic outgroup discrimination. Recall of positive intergroup contact preceded by recall of negative contact led to reduced linguistic discrimination in descriptions of

outgroup members, especially for recall of recent compared to past experiences. Hence, prior studies indicate that examining the language used to depict interpersonal interactions between members of different groups can serve as a valuable tool for understanding the impact of recalling positive or negative contact experiences with members of a marginalized group on outgroup discrimination. It offers insight into how these experiences may shape attitudes and behaviors towards the discriminated group.

Overview of the Study

The 2018 United Nations Special Rapporteur on racial discrimination in the UK opined that even if governmental policies addressing racial equality and hate crimes have been adopted, ethnic minorities still face different forms of discrimination and socio-economic exclusion that unjustly determine their life opportunities, sometimes even unlawfully (Achiume, 2018). Among other ethnic minorities, British Asians face discrimination across a wide range of measures, including housing, employment, policing, and health (e.g., Social Mobility Commission, 2016). In a recent study on interethnic contact between White and Asian British people, Kros and Hewstone (2020) showed that White people who live in UK neighborhoods with relatively many compared to few Asian British people reported more positive but, encouragingly, not more negative interethnic contact. Furthermore, White and Asian British people who have more positive interethnic contact reported higher levels of perceived cohesion, general trust, and outgroup trust, and a lower level of prejudice. The opposite held true for White and Asian British people who reported more negative interethnic contact.

In the present study we sought to go beyond previous research in understanding the association between different forms of contact (direct vs. extended) and contact of different

valence (positive vs. negative) and intergroup relations, and the interplay between contact experiences of different valence. We investigate the link between contact valence of White British people with Asian British people and an index of discrimination that is less subject to socially desirable responding than the typically used explicit measures of attitude. We used positive and negative linguistic abstraction scores to assess how White British members of the majority group described their recent encounters with members of the Asian British minority group.

In line with previous research showing that, especially majority, group members tend to show low levels of linguistic outgroup discrimination (Moscatelli et al., 2014), we, first, predict that White British people will use positive terms at a higher abstraction level than negative terms in depicting their encounters with Asian British people. (**Hypothesis 1**). Second, we predict that higher cross-group friendship of White British people with Asian British people will be associated with lower use of negative language abstraction to describe Asian British people (**Hypothesis 2a**). Similarly, we predict that higher positive direct intergroup contact of White British people will be associated with less negative language abstraction to depict outgroup members (**Hypothesis 2b**).

We also predict that higher direct negative intergroup contact experiences of White British people will be associated with higher use of negative language abstraction in describing Asian British people (**Hypothesis 3**). We control for other antecedents and correlates of social discrimination, such as perceived ingroup norms in favor of intergroup contact (Christ et al., 2014) and two intolerant ideologies that are strongly associated with intergroup prejudice. First, SDO (Pratto et al., 1994) indicates an individual tendency to support inequality between social groups (Pratto et al., 1994), implying support for group-relevant social policies that uphold the

hierarchy of the status quo. Second, RWA (Altmeyer, 1998) refers to an ideology characterized by a strong emphasis on traditional values, a hierarchical social order, and a centralized authority, often promulgated by a charismatic or authoritarian leader (Altmeyer, 1998). SDO and RWA are typically positively correlated (Roccato & Ricolfi, 2010), but independently predict prejudice and ethnocentrism (Pratto et al., 2006).

Given that people may have different types of daily positive and negative experiences with outgroup members, we also examine the interplay between positive and negative intergroup contact of different types and its association with linguistic outgroup discrimination. We predict a buffering effect of different forms of positive contact (i.e., cross-group friendship, direct and extended positive contact) on the association between having negative experiences with outgroup members and depicting them using more negative abstract terms. We predict that the association between higher direct negative contact and higher negative language abstraction will be weaker for White British people with high compared to low cross-group friendship (**Hypothesis 4**a). Similarly, we predict that the association between higher direct negative contact and higher negative language abstraction will be lower for White British people with high rather than low direct positive intergroup contact (**Hypothesis 4b**). Finally, we also predict that the association between higher direct negative contact and higher negative language abstraction will be lower for White British people with high rather than low extended positive intergroup contact (**Hypothesis 4c**). Table 1 presents a summary of the hypotheses.

Insert Table 1 about here

Method

Respondents and Procedure

To test the hypotheses described above we examined data not previously analyzed from a follow-up questionnaire of a diary study reported by Prati et al. (2022). This previous article used a sample comprising both White British majority members and Asian British minority members. Respondents were recruited by Ipsos MORI survey company. Data were collected in England from March to April 2017 using smartphones, tablets, and desktops. Respondents were sampled from mixed neighborhoods taken from the company's online panel. The neighborhoods were selected based on a stratified random probability sample, with the strata being defined by low, medium and high levels of economic deprivation. The survey was conducted in English. Respondents first completed a series of measures including social dominance orientation, authoritarianism, perceived ingroup norms, neighborhood diversity and contextual deprivation, then they were asked to complete a daily diary for 15 days where they reported each day how many times that day they had had overall, positive, and negative contact. Those who reported having had at least some positive or negative contact were asked subsequently to think of the first positive and negative experience that came to mind and to describe the experience. One month later respondents completed a follow-up questionnaire where they reported a description of the interactions with outgroup members that they remembered.

Prati et al. (2022) employed the 15-day diary data to test predictors of the number of daily positive and negative intergroup interactions, including social dominance orientation and authoritarianism, perceived ingroup norms, neighborhood diversity and contextual deprivation. Results showed that for the majority group, ingroup norms in favor of intergroup contact were positively associated with positive intergroup encounters, whereas Right Wing Authoritarianism (RWA) was positively associated with negative intergroup contact. Neighborhood diversity was

positively associated with positive and negative intergroup encounters. Moreover, RWA moderated the relationship between neighborhood diversity and both positive and negative contact of White British people. For the minority group, ingroup norms were positively associated with positive intergroup contact, and the relationship between ingroup norms and negative contact was moderated by SDO.

In contrast to the earlier study, the present study focuses on the follow-up questionnaire data and it is clearly different in terms of sample, research question and scope. In the present we analyse only responses from the White British participants, because we are mainly interested in the linguistic outgroup discrimination reported by the majority and advantaged group, contributing to hinder social inclusion in multicultural societies. A total of 192 majority (White British; 61.5% women and 38.5 men; age: M = 48.26, SD = 15.60) respondents completed the follow-up test and comprised the sample of this study. [1]

At the beginning of the survey respondents were informed about the topic of the survey, its procedure, and response format, according to the ethical principles and rules of conduct of the American Psychological Association (APA, 2017). They were also informed that participation was voluntary, and their anonymity was preserved by the survey company, so data could not be traced back to them by name after the follow-up by the researchers. Respondents also received nine pounds sterling compensation for their participation in the diary study and three pounds sterling for the follow-up. Accordingly, respondents gave “informed consent” (APA, 2017, p. 10) before proceeding with the questionnaire. We conducted a sensitivity analysis on the achieved sample size to account for the power of our model. Using G*Power software (Faul, et al., 2017), we conducted a sensitivity power analysis showing that the minimum effect size that

this sample size (N=129) can detect at a power of .90 for the interaction effects is a *Cohen's f* = .13.

Respondents were first required to complete some pre-diary measures (reported below), followed by the daily reports of intergroup contact for up to 15 days. One month later, respondents completed a 10-minute follow-up post-diary survey which included the request to describe in their own words how they recalled the contact experiences with Asian people they had had during the previous month. The pre-diary study measures[2] included in this study were: cross-group friendship, direct and extended positive and negative intergroup contact, social dominance orientation, right wing authoritarianism, ingroup norms.

Measures

Cross-group Friendship. One item was used to assess cross-group friendship: *"*How many of your close friends are Asians?"; scale anchors ranged from 1 (0) to 12 (more than 10).

Direct Positive and Negative Outgroup Contact. One item each, adapted from Barlow et al. (2012), was used to assess each type of contact: "How often do you have positive/good (negative/bad) contact with Asian people?"; scale anchors ranged from 1 (*never*) to 5 (*every day*).

Extended Positive and Negative Intergroup Contact. One item each was used to assess each type of contact: "How often do White people you know have positive/good (negative/bad) contact with Asian people?"; scale anchors ranged from 1 (*never*) to 5 (*every day*).

Social Dominance Orientation. The 4-item Short-SDO scale (Pratto et al., 2013) was used to assess SDO (e.g., "We should not push for group equality", "Superior groups should dominate inferior groups"). The response scale ranged from 1 (*disagree strongly*) to 5 (*agree*

strongly). After reversing two items, the reliability of four items was tested using McDonald's omega, ranging from 0 to 1 and indicating a good internal consistency with values of .70 or higher (Hayes & Coutts, 2020). Thus, a composite SDO index was created based on reliability of the items (ω = .78), whereby high scores indicate high SDO.

Right Wing Authoritarianism. Three items were used to assess RWA (i.e., "People should leave important decisions in society to their leaders", "Traditional behavior should not be questioned", "Troublemakers should be made to feel that they are not welcome in society."); scale anchors were 1 (*disagree strongly*) to 5 (*agree strongly*). The items yielded an RWA index (ω = .60) that is below, but close to the recommended cut-off .70); since we could not improve the index by removing the items, we use it with appropriate caution.

Ingroup norms. Three items adapted from Gómez, Tropp, and Fernández (2011) were used to assess ingroup norms in favor of intergroup contact (i.e., "My White friends would consider it a positive thing to have Asian friends", "My family would consider it a positive thing to have White friends", "White people in my neighborhood would consider it a positive thing to have Asian friends"); scale anchors were 1 (*disagree strongly*) to 5 (*agree strongly*). These three items yielded a reliable index of ingroup norms (ω = .87).

Language Abstraction. We coded both verbs and adjectives according to Semin and Fiedler's (1988, 1992) LCM, used to describe interactions with Asian British people with whom respondents reported having had contact: *Descriptive-action-verbs* (e.g., "They *speak loudly*"; "They often *smile*"); *Interpretive-action-verbs* (e.g., "They *commit* crimes"; "They *help* others"), *State-verbs* (e.g., "They *despair* of their condition"; "They *respect* our society"), and *Adjectives* (e.g., "They are *dishonest people*"; "They are *honest people*"). The semantic valence of predicates (positive *vs*. negative) was also coded. Specifically, two independent coders, blind to

the hypotheses, were asked to read descriptions of encounters between White British and Asian British people, and to code each term referring to Asian British people reported by White British respondents, on the basis of abstraction (according to four levels of the LCM) and valence (two levels: positive and negative). Auxiliary verbs were not coded. This procedure was employed in previous research on linguistic intergroup discrimination (Moscatelli et al., 2014; Prati et al., 2015; Rubini et al., 2014).

Reliability between two independent coders was satisfactory for linguistic categories (Cohen's $\kappa = 85$) and valence (Cohen's $\kappa = .89$). Disagreement between the coders was resolved by discussion. Then, overall positive and negative abstraction scores were computed for each participant by employing a single monotonic weighting scheme whereby weights of 1, 2, 3 and 4 were assigned to DAVs, IAVs, SVs, and ADJs respectively. The summed weights were then divided by the total number of terms used. Scores on this abstraction index can range from 1 to 4: the higher the score, the greater the linguistic abstraction.

Results

Preliminary Analyses

We tested for systematic attrition between respondents who completed the follow-up test (N=192) and those who did not (N=552). We included the different variables of intergroup contact under study, main variables related to intergroup contact (i.e., SDO, RWA, ingroup norms) and respondents' demographics (i.e., age, gender and education). Gender was coded as 1 for women, 2 for men. As shown in Table 2, analyses revealed that White British respondents

Insert Table 2 about here

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who completed the follow-up test were significantly lower in RWA than those who did not complete it. Given this evidence of systematic attrition on RWA, we controlled for this variable in the main analyses.

Means, standard deviations and correlations among study variables are reported in Table 3. In line with previous research on intergroup contact, the pattern of correlations between

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Insert Table 3 about here

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measures of contact was as expected. Cross-group friendship was positively associated with extended positive intergroup contact and ingroup norms in favor of contact. Direct positive intergroup contact was positively associated with extended positive intergroup contact, and direct negative intergroup contact was positively associated with extended negative intergroup contact. Ingroup norms were positively associated with cross-group friendship and extended positive contact, and negatively associated with direct and extended negative contact.

Positive and negative linguistic abstraction scores, obtained from respondents' post-diary descriptions of intergroup encounters, were also correlated with measures of contact and other variables in a meaningful manner – we spell out the meaning of these correlations, given that such linguistic measures have been rarely used in this area. Positive language abstraction was correlated, negatively, only with White British respondents' RWA. Negative language

abstraction was negatively correlated with perceived ingroup norms in favor of intergroup contact, meaning that linguistic derogation toward Asian British people was lower for White British respondents who perceived that their family and friends support intergroup contact with Asian people. Negative language abstraction in descriptions of intergroup encounters was also positively correlated with both direct and extended negative contact with Asian people. As expected, RWA and SDO were positively correlated (Roccato & Ricolfi, 2010), and SDO, but not RWA, was negatively associated with ingroup norms in favor of intergroup contact.

The analysis comparing positive and negative abstraction scores revealed that respondents used positive terms at a significantly higher level of abstraction (M = 2.67, SD = 1.25) than for corresponding negative terms (M = 0.59, SD = 1.23), $t(188) = 2.08$, SD = 1.78, $p <$ 001, Cohen's d = 1.67, to describe their intergroup experiences (supporting Hypothesis 1).

The Predictive Role of Intergroup Contact on Linguistic Outgroup Derogation

We used multiple regression to test predictors of negative language abstraction. We included, first, as control variables: (1) respondents' demographic characteristics: age, gender, and education; (2) three measures from the pre-diary survey: SDO, RWA and ingroup norms in favor of intergroup contact; and (3) and positive language abstraction. In the following steps we added: second, extended positive and negative intergroup contact; third, direct positive and negative intergroup contact; and finally, cross-group friendship with Asian British people.

The overall regression model was significant, $R^2 = 0.63$, $F(12, 66) = 9.26$, $p < .001$ (see Table 4). Contrary to predictions, neither cross-group friendship nor direct positive contact were

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Insert Table 4 about here

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significantly associated with negative language abstraction (disconfirming Hypotheses 2a and 2b). As predicted, direct negative intergroup contact was positively associated with negative language abstraction (supporting Hypothesis 3). Ingroup norms were negatively related with negative language abstraction, showing that respondents with perceived higher ingroup norms in favor of intergroup contact used negative abstract terms to a lower extent than those who perceived lower ingroup norms. We also conducted the same analysis with positive language abstraction score (see Appendix), but it did not produce any significant effect. Evidence thus suggests that positive intergroup contact with British Asians did not lead White British respondents to use more positive language abstraction to describe the outgroup. Yet, the benefit of positive contact was revealed by the attenuated use of negative language abstraction especially by White British people who reported negative intergroup experiences.

The Moderating Role of Intergroup Contact Valence on Linguistic Outgroup Derogation

Our next step was to explore which, if any, variables qualified the association we identified between negative intergroup contact of White British people with Asian British people and the subtle measure of discrimination in the form of negative language abstraction. Using the macro PROCESS (Model 1; Hayes, 2013) in SPSS, we tested separately whether each of three forms of positive intergroup contact (i.e., cross-group friendship, direct positive contact and extended positive contact) moderated the association between direct negative intergroup contact and negative language abstraction reported by White British people to describe their interactions with Asian British people. Prior to conducting the analysis, the variables were centered to avoid multicollinearity relations (Cronbach, 1987). In all models we controlled for respondents' age, gender and education, SDO, RWA, ingroup norms and positive language abstraction. First, the

regression model with cross-group friendship with Asian British people as moderator was statistically significant, $R^2 = 0.51$, $F(10, 103) = 11.10$, $p < .001$. The association between the predictor and the outcome, as well as those of the moderator and control variables with the outcome were similar to those reported in the regression analysis above. Results showed no interaction, $b = 0.03$, $SE = 0.08$, 95% CI [-0.13, 0.19] (thus we could not confirm Hypothesis 4a).

Second, the regression model testing whether direct positive contact of White British people with Asian British people moderated the association between negative intergroup contact experiences and negative language abstraction was statistically significant, $R^2 = 0.56$, $F(10, 103) = 12.11$, $p < .001$. As expected, there was an interaction (supporting Hypothesis 4b), $b = -0.28$, $SE = 0.09$, 95% CI [-0.47, -0.10]. Simple slopes (see Figure 1) showed that higher negative

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Insert Figure 1 about here

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intergroup contact was associated with higher negative language abstraction for respondents with lower direct positive contact, $b = 1.34$, $SE = 0.16$, 95% CI [1.02, 1.65], and to a lesser extent for those who reported higher direct contact with Asian British people, $b = 0.62$, $SE = 0.15$, 95% CI [0.30, 0.93]. Thus, direct positive contact can attenuate the use of negative language abstraction especially among people with higher direct negative contact experiences.

Third, the regression model testing whether extended positive contact with Asian British people moderated the association between negative intergroup contact of White British people and negative language abstraction was statistically significant, $R^2 = 0.58$, $F(10, 92) = 11.\ 69$, $p <$

.001. Supporting Hypothesis 4c, there was a significant interaction, *b*= -0.33, *SE* = 0.10, 95% CI [-0.55, -0.11]. Simple slopes (see Figure 2) showed that higher negative intergroup contact was

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Insert Figure 2 about here

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associated with higher negative language abstraction for respondents with lower extended positive contact, *b*= 1.25, *SE*= 0.16, 95% CI [0.93, 1.57]. No significant association was found for those with higher extended contact with Asian British people, *b*= 0.36, *SE*= 0.19, 95% CI [-0.01, 0.75]. Thus, extended as well as direct positive contact can help to attenuate the pernicious use of negative language abstraction especially for people with higher direct negative contact experiences.

Discussion

This research sought to examine how White British people's intergroup contact experiences with Asian British people in the UK affect the language they use when describing their recent interactions with members of this ethnic minority group. We considered multiple forms of intergroup contact, including: (1) cross-group friendship, (2) direct and (3) extended contact, with each of the latter two crossed with whether the contact was rated (4) positive or negative in valence. The main objective of this study was to test four hypotheses concerning the association between these different types of contact, as well as their interplay, and the level of negative language abstraction used when reporting intergroup encounters. Specifically, we tested the association between the different kinds of contact and the abstraction of negative terms used by

White British people when recalling encountered Asian British people, as a linguistic measure of outgroup derogation.

The results of the study revealed several key findings. First, confirming Hypothesis 1, we found that White British people depicted outgroup members using terms at a higher positive than negative abstraction when describing these recent intergroup experiences. This evidence supports and extends previous research showing a stronger use of positive terms in general (see Rubini et al., 2014).

Second, contrary to Hypotheses 2a and 2b, neither cross-group friendship, nor direct positive contact of White British people with Asian British people were negatively associated with the use of negative language abstraction to describe encounters with Asian British people. This evidence implies that it is neither the level of contact intimacy nor the positive experiences with outgroup members that affect linguistic discrimination in depicting Asian British people. However, the more direct negative intergroup contact experiences White British people reported, the higher the use of negative language abstraction when describing encounters with Asian British people (confirming Hypothesis 3).

Negative events tend to be more salient and impactful than positive ones (Paolini et al., 2010) and are portrayed linguistically through the use of terms at a high abstraction level. This may lead to a crystallized negative view of outgroup members that will be difficult to change in the future. Although we had not predicted that gender would influence the use of negative language abstraction, we did find that men tended to depict outgroup members with higher negative language abstraction than women did. This may imply that women might be more lenient in portraying their negative experience with outgroup members in general, and future research should investigate this. The finding of greater negative linguistic abstraction is

consistent with evidence of stronger intergroup bias in men than women, as illustrated by higher scores on SDO (Levin, 2004).

Third, the moderation hypotheses (4a, b, c) concerning the buffering role of positive contact experiences (cross-group friendship, direct and extended positive contact) on the association between negative direct contact and negative abstract term use, were partially confirmed. Specifically, there was no moderation of cross-group friendship. Nevertheless, the positive association between direct negative contact with Asian British people and the use of negative language abstraction was weaker for White British people who had either higher direct or higher extended positive intergroup contact than for those with lower direct or extended contact. Thus, direct and extended positive contact with Asian British people reduced the association between direct negative intergroup contact and negative language abstraction.

This evidence suggests a more subtle role of positive contact, whereby the frequency of different types of positive experiences with Asian British people may, rather than being directly negatively correlated with bias, serve as a protective factor that mitigates the impact of negative intergroup contact on outgroup linguistic discrimination of White British people. Overall, our results highlight the importance of examining separately the role of positive and negative contact experiences and their interplay to detect their influence on linguistic outgroup discrimination. This indirect measure of discrimination is crucial to detect the transmission of intergroup threat, hostility and distance that prevent social integration in contemporary multicultural societies.

Theoretical and Practical Implications

Although under specific conditions individuals can control linguistic bias (for instance, if they provide descriptions in a comparative framework; Douglas et al., 2008), neither communicators nor recipients are aware of such a strategic use of language (Maass et al., 2000). An innovative

aspect of the present study is the investigation of an indirect measure of discrimination such as language abstraction as a function of how respondents describe recalled intergroup contact experiences. Language abstraction avoids some of the limitations of the commonly used measures of stereotypes and discrimination, namely that such explicit measures are susceptible to social desirability bias, whereas linguistic abstraction is a more implicit measure.

Our results have multiple implications. First, extending previous research on linguistic outgroup derogation by majority toward minority group members (Moscatelli et al., 2014), we did not find higher negative than positive language abstraction in depicting ethnic minority members, indicating that recall of previous inter-ethnic experiences does not commonly include descriptions aimed at transmitting an overall negative evaluation of outgroup members. This evidence confirms that most of people's daily intergroup encounters are positive, not threatening, and only few of them are perceived as detrimental experiences.

Second, examining intergroup contact valence provided further information on the use of negative language abstraction, resulting in the communication of an unfavorable evaluation of outgroup members. Results highlighted that negative rather than positive intergroup contact experiences are more strongly associated with the way people depict contact with outgroup members and how they transmit information about them. Nevertheless, the distinction between positive and negative intergroup contact is still very general, including a variety of experiences at different levels of intensity and intimacy. Future research could distinguish the different topics reported in intergroup encounters (Sanchez et al., 2022) to assess the role of the content of contact on linguistic outgroup discrimination. Tracking and analyzing the content of contact in terms of discussed topics could help us to better understand when and how different topics alter

the valence of the contact experience, and how intergroup encounters can reduce or increase social discrimination.

Third, further analyses showed that the use of higher negative language abstraction in depicting outgroup members is fostered by having had direct negative intergroup experiences. Given that this use of negative language abstraction is likely to prevent future attempts to conceive intergroup relations in a positive fashion (Maass et al., 2000), this finding highlights the detrimental effect of negative intergroup contact on relations between different groups due to prejudicial communication about outgroup members. As a behavior that is beyond conscious control, the use of negative language abstraction not only implies something about the speaker's level of prejudice, but also contributes to spreading intergroup prejudice by influencing the interlocutor's opinion about outgroup members, that may, in turn, be shared with and transmitted to other ingroup members.

Fourth, considering both direct and extended negative experiences of contact, direct negative contact with Asian British people was the only variable associated with the use of negative language abstraction in describing outgroup members. This evidence supports and extends the primary role of direct compared to indirect forms of contact in shaping individuals' discrimination (Vezzali et al., 2014). Our finding implies that reducing the frequency of face-to-face negative experiences is a key aspect of not only changing outgroup attitudes among those involved in contact, but also in diminishing the transmission of outgroup discrimination. Although the present research addressed not only direct, but also extended contact, given the high level of segregation and avoidance of direct contact between groups (Paolini et al., 2018) and the increasing role played by mass media in individuals' lives, other forms of indirect contact, such as the frequency of positive and negative information about inter-ethnic relations in

mass-mediated contact, should also be examined to assess their influence on linguistic discrimination in the form of describing contact with ethnic minority members.

Fifth, results on the moderating role of direct and extended positive intergroup contact, but not cross-group friendship, on the detrimental role of negative contact, support and elaborate the beneficial role of positive contact in intergroup relations (Pettigrew & Tropp, 2006). The evidence implies that it is not, at least not always, the intimacy (cross-group friendship) but the frequency of direct or indirect intergroup experiences that can buffer the perpetuation of linguistic discrimination related to negative encounters with outgroup members. Further research is needed to support this preliminary finding and its generalization across different groups and contexts. Positive intergroup contact (in its various forms) can provide meaningful personal experiences that challenge negative stereotypes and generalizations. As a result, even White British people with higher negative contact experiences with British Asians were less likely to use negative linguistic abstractions in describing their recent encounters with minority people of this heritage, when they had also reported positive intergroup experiences. Overall, considering multiple forms of contact improved understanding of the complexity of the intergroup contact phenomenon and the way different intergroup experiences contribute to the transmission of outgroup discrimination.

Limitations and Future Research

We acknowledge some limitations of the present research. First, the analysis of this linguistic material was only possible using a reduced sample size, due to many respondents not completing the follow-up (which included the open-ended depictions of recent contact). There was some, albeit limited, evidence of systematic attrition in this reduced sample; hence we should generalize conclusions with caution. Second, the reliability of the four-item measure of RWA

was slightly lower than the conventional cut-off, so results for this measure should be interpreted with caution. Third, although the stratified random probability sample is valuable for external validity, the cross-sectional design of the study does not allow any inferences about causality between measured variables, and thus we report the findings in terms of associations among variables rather than effects of one variable on another. Future studies should investigate the role of positive and negative contact in linguistic outgroup discrimination in both longitudinal and experimental studies. Replication of our findings in other cultural contexts is also desirable in future research. Cross-cultural studies can provide a comparative perspective that highlights the similarities and differences in intergroup relations and the effects of linguistic abstraction in different cultures. Such research would contribute to a better understanding of the cultural factors that may modulate the association between intergroup contact, linguistic abstraction and discrimination.

Conclusion

Our findings go beyond previous research by providing the first analysis of linguistic abstraction as part of a large-scale survey and diary study, and by showing the interplay between intergroup contact and this subtle form of intergroup discrimination. Our most important and novel finding is that even if negative experiences with ethnic minority group members may, not surprisingly, trigger outgroup derogation, having also had positive contact with members of this outgroup acts as a protective factor that mitigates the impact of negative intergroup contact on outgroup linguistic discrimination of White British people. Ensuing detrimental effects on intergroup relations, by hindering communication and future interaction with the outgroup, are thereby thwarted, thus confirming in a new way the benefits of improving positive intergroup experiences.

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Notes

1. The previous article (Prati et al., 2022) also involved a sample of Asian British people. However, very few respondents (N=45 out of 582) of this ethnic subgroup sample reported linguistic descriptions of their intergroup encounters in the post-test, and there was extensive missing data with respect to the use of DAVs, IAVs, SVs and ADJs. For these reasons, in this contribution we focus exclusively on the majority group.

2. Other measures were included in the pre-diary survey that we did not employ in the present study [see Bracegirdle et al. (2020, March 9). UK Diary Study. Retrieved from osf.io/fj2m7].

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Table 1. Summary of hypotheses and significant results.

Hypotheses	**Supported hypotheses**
1: The use of positive terms at a higher abstraction level than negative terms	✓
2a: The negative association between cross-group friendship and negative language abstraction	
2b: The negative association between direct positive intergroup contact and negative language abstraction	
3: The positive association between negative intergroup contact and negative language abstraction	✓
4a: The moderation of cross-group friendship	
4b: The moderation of direct positive intergroup contact	✓
4c: The moderation of extended positive intergroup contact	✓

Table 2. Attrition for respondents who did vs. did not complete the follow-up test.

	Respondents (n =192)	Missing (n =552)	Significant difference and Cohen's d
Age	48.12	47.03	-
Gender	1.39	1.41	-
Education	3.80	3.85	-
SDO	2.14	2.00	-
RWA	3.13	2.99	*(0.18)
Ingroup norms	3.66	3.62	-
Cross-group friendship	2.21	2.05	-
Direct positive contact	2.70	2.77	-
Direct negative contact	1.46	1.41	-
Extended positive contact	3.54	3.36	-
Extended negative contact	2.20	2.30	-

Note. Little's MCAR test: Chi-Square = 147.990, DF = 127, p = .098 (considering: gender, age, education, SDO, RWA, ingroup norms). SDO = Social Domination Orientation; RWA = Right-Wing-Authoritarianism.

Table 3. Means, standard deviations and correlations among study variables (N = 129).

	M	SD	1	2	3	4	5	6	7	8	9	10
1. Cross-group friendship	2.21	1.94	-	.14	-.10	.37**	-.16	-.09	-.02	.17*	-.08	-.05
2. Direct positive contact	2.70	1.24		-	.02	.40**	-.00	.00	-.06	.17	.16	-.09
3. Direct negative contact	1.46	0.91			-		.46**	.11	.09	-.25**	.05	.66**
4. Extended positive contact	3.54	1.27				-	-.13	.01	-.14	.33**	-.09	-.12
5. Extended negative contact	2.20	0.95					-	-.06	.05	-.37**	-.01	.26**
6. SDO	3.66	0.69						-	.38**	-.17*	-.06	.10
7. RWA	2.14	0.65							-	-.09	-.17*	.04
8. Ingroup norms	3.13	0.72								-	-.07	-.17*
9. Positive language abstraction	2.67	1.25									-	-.03
10. Negative language abstraction	0.59	1.23										-

Note. * $p < .05$, ** $p < .01$. SDO = Social Domination Orientation; RWA = Right-Wing-Authoritarianism.

Table 4. Regression analyses: Factors predicting negative language abstraction (N = 129).

Variable	B	*SE B*	*β*	*t*	R^2	ΔR^2
Step 1:					.19**	
Age	-0.00	0.01	-0.01	-0.15		
Gender	0.45	0.30	0.17	1.49		
Education	0.10	0.10	0.11	0.99		
SDO	0.26	0.25	0.13	1.03		
RWA	0.15	0.23	0.09	0.66		
Ingroup norms	-0.47	0.21	-0.26	-2.26*		
Positive language abstraction	-0.05	0.14	-0.04	-0.35		
Step 2:					.22**	.03
Extended positive contact	-0.05	0.11	-0.06	-0.51		
Extended negative contact	0.26	0.16	0.19	1.60		
Step 3:					.61***	.39**
Direct positive contact	0.11	0.09	0.10	1.22		
Direct negative contact	0.94	0.12	0.71	7.71***		
Step 4:					.63***	.02
Cross-group friendship	0.09	0.05	0.16	1.73		

Note. * $p < .05$, *** $p < .001$. SDO = Social Domination Orientation; RWA = Right-Wing-Authoritarianism.

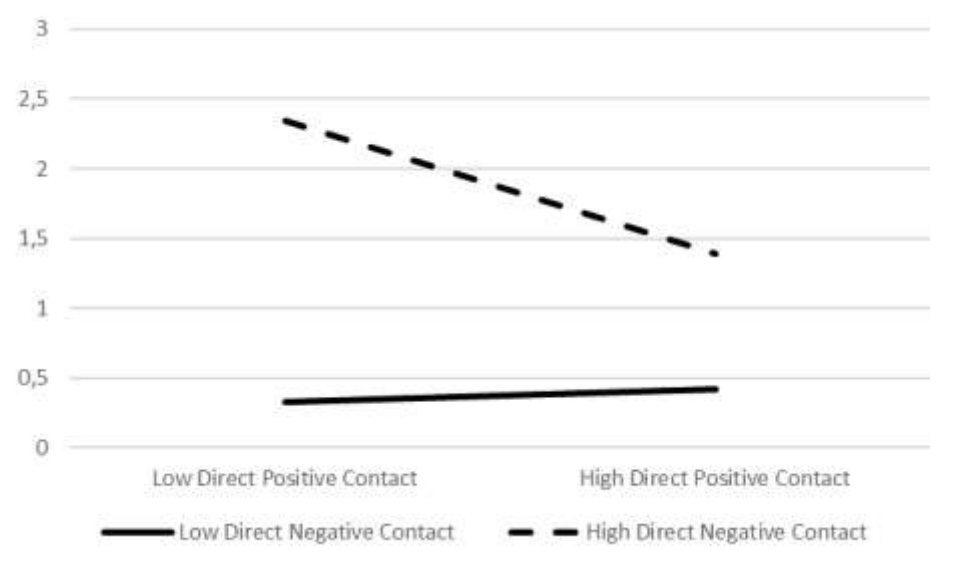

Figure 1. Interaction between direct negative contact and direct positive contact of White British people on negative language abstraction in describing Asian British people encountered.

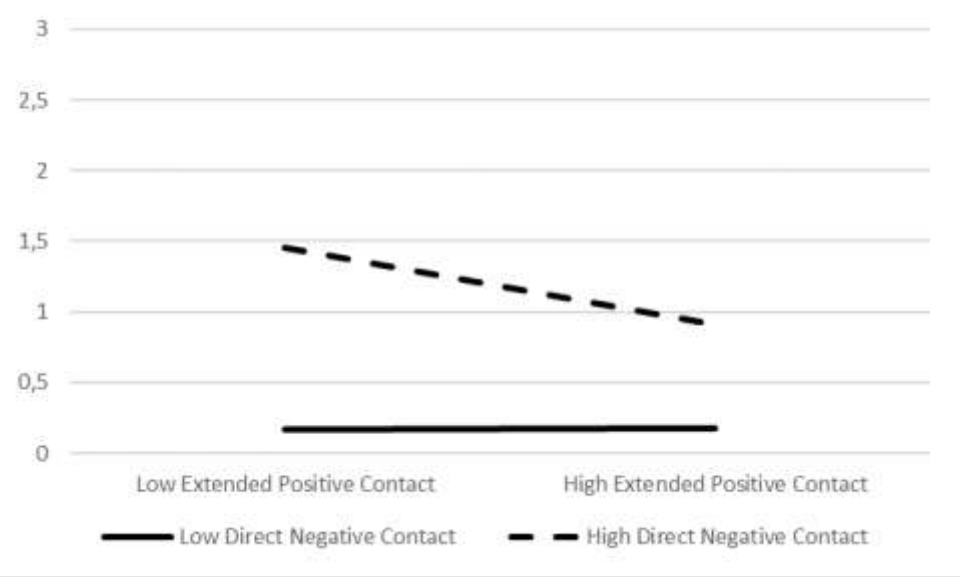

Figure 2. Interaction between direct negative contact and extended positive contact of White British people on negative language abstraction in describing Asian British people encountered.