

# When my friend's friend is a police officer: Extended contact, crossed-categorisation, and public-police relations of black and white people



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Crossed-categorisation and extended contact are two different bases for improving intergroup relations. Crossed-categorisation refers to the crossing of two dichotomous social dimensions, resulting in four groups (double ingroup, double outgroup, and two mixed groups). The extended contact hypothesis proposes that knowledge about ingroup-outgroup friendships can lead to more positive intergroup attitudes. The present research combined extended contact and crossed-categorisation to test whether black and white university students' view of the police, perceived racism of police, desired closeness to police, and willingness to join police were improved through extended contact with a black (or white) police officer via a black (or white) acquaintance (four possibilities). Double-outgroup extended contact for both white and black participants, and mixed-group extended contact for whites (showing a social exclusion pattern), were associated with worse public-police relations. In contrast, double-ingroup extended contact for whites, and mixed-group extended contact for blacks (showing a social inclusion pattern) were associated with improved relations.

**Keywords:** contact hypothesis; crossed-categorisation; extended contact; race differences; public-police relations

In multiracial societies, such as the United Kingdom (UK), the United States (USA), and Australia (Banton, 1994; Byron, 2001; Wortley & Homel, 1995), the police are generally perceived to be racist, as evidenced by widely publicised examples of their unfavourable

treatment of minority groups. In the USA, ‘racial profiling’ — the stopping and searching of people from particular racial groups — has become so pervasive that it is commonly referred to as walking, driving, or even breathing ‘while black or brown’ (Shuford, 2005; also see Tyler & Wakslak, 2004). Post-9/11 legislation, such as the Patriot Act, has arguably even intensified this targeting of minority groups (Biemer & Brachear, 2003). In England and Wales, during 2004 and 2005, black people were six times more likely to be stopped and searched by the police than white people (Home Office, 2005). The Macpherson inquiry (Macpherson, 1999) into the 1993 murder of black teenager Stephen Lawrence in London concluded that London’s police service is riddled with a ‘pernicious and persistent institutional racism’ (par. 6.46). Since then, inquiries into the police services of other parts of the country have reached similar conclusions (Stevens, 2004).

It appears that racism and differential treatment of minority groups exist on an institutional level in Britain’s and America’s police forces (Liebkind, Haaramo, & Jasinskaja-Lahti, 2000). However, it is not clear whether police officers, who sometimes belong to racial minority groups themselves, assimilate to prevailing norms of racism when they enter the police force. In any event, there are currently less than 7% of black and Asian police officers with the Metropolitan Police Service in London, where the present study took place (Metropolitan Police Service, 2005).

Police racism is apparent to minority group members, particularly blacks (Havis & Best, 2004). The latter generally report less positive interactions with the police than do whites. Thus, not surprisingly, blacks seek less contact with the police than people of other ethnic groups (Clancy, Hough, Aust, & Kershaw, 2001). This lack of positive contact is likely to have detrimental effects on black people’s attitudes towards the police and may make them less willing to cooperate. Research has shown that blacks are less willing to give witness statements, identify culprits, or give evidence in court than whites (Jefferson & Walker, 1993; Viki, Culmer, Eller, & Abrams, 2006; also see Eller, Abrams, Viki, Imara, & Peerbux, in press). These findings are disconcerting, given that the police and the criminal justice system depend on public cooperation in order to be effective (cf. Wood & Viki, 2004). The solution to this problem might lie in the promotion of positive and pleasurable intergroup contact between police and members of the public, particularly those belonging to racial minority groups.

### ***Crossed-categorisation***

One way to decrease bias and improve intergroup relations is by crossed-categorisation (e.g., Deschamps & Doise, 1978; Hewstone, Islam, & Judd, 1993; Vanbeselaere, 1987). This idea is based on the fact that, with salient group memberships, intra-category differences are usually minimised whereas inter-category differences are maximised (Tajfel, 1978). This cognitive bias might be attenuated through crossed-categorisation, leading to ‘convergence’ between the categories and ‘divergence’ within each category — see Doise’s (1978) category differentiation model.

Crossed-categorisation typically refers to the crossing of two independent, dichotomous dimensions, resulting in four groups: (a) the double ingroup (also, ingroup–ingroup) refers to people who share ingroup membership on both dimensions, (b) the double outgroup (or outgroup–outgroup) refers to people who are outgroup members on both dimensions, and (c) ingroup–outgroup and (d) outgroup–ingroup refer to people who are part of the ingroup on one dimension and part of the outgroup on the other dimension. So, for instance, a black police officer and a white member of the public (or a white police officer and a black member of the public) share no group membership, a black police officer and a black member of the public share one, but not the other group membership (as do a white police officer and a white member of the public, black and white police officers, and black and white members of the public), and black (or white) police officers or black (or white) members of the public share ingroup membership on both dimensions.

A number of patterns predicting different evaluations in relation to crossed-categorisation have been proposed (Brewer, Ho, Lee, & Miller, 1987; Hewstone et al., 1993). Of these, the additive pattern has received the most support in two meta-analyses (Migdal, Hewstone, & Mullen, 1998; Urban & Miller, 1998) and a narrative review of the literature (Crisp & Hewstone, 1999). With the additive pattern, categories are combined in a purely additive manner such that the double ingroup is evaluated most positively, the double outgroup most negatively, and mixed or partial groups in between these two extremes.

However, the current intergroup context might actually be characterised by a social inclusion or exclusion pattern, respectively. *Social inclusion*, also known as the category conjunction (similarity) pattern, depicts a condition in which all groups that are ingroup on at least one dimension are evaluated equally positively. Hence, double outgroups are evaluated less positively than double ingroups and mixed groups. *Social exclusion* –category conjunction (dissimilarity) pattern — is the opposite: All groups that are outgroup on at least one dimension are evaluated equally negatively. So, double ingroups are evaluated more positively than double outgroups and mixed groups (Crisp & Hewstone, 1999; Hewstone et al., 1993).

Miller (1992; in Crisp & Hewstone, 1999) suggested that threat to social identity might lead to a social exclusion pattern (making people hyper-vigilant on who can be part of the ingroup), while lack of threat might entail a social inclusion pattern (making people quite lenient in terms of the criteria for ingroup membership). It is plausible that white people in Britain, especially the more prejudiced ones, perceive a constant, underlying threat to their social identity through the presence of blacks and other minority groups and their rightful claims to form part of the ingroup of the British. Hence, they might want to protect their group from undesirable outsiders and might engage in over-exclusion of potential outgroup members from their ingroup (cf. Leyens & Yzerbyt, 1992). With respect to black people in Britain, they might not perceive whites to be a threat to their ingroup, and indeed might desire to be part of the (mainly white) mainstream ingroup of the British, from which they often feel excluded. Thus, we would predict white participants to display a social exclusion pattern and black respondents to show a social inclusion pattern (Abrams, Hogg, & Marques, 2005).

Marcus-Newhall, Miller, Holtz, and Brewer (1993) applied crossed-categorisation

to a (laboratory-based) intergroup contact setting in two experiments. They crossed experimentally created groups with differential role assignments. Although not an equivalent group dimension, the authors predicted that assigning roles that either converge or cut across some existing categorical membership would have effects similar to those observed when two intergroup categorisations are crossed. A composite measure of similarity was created from ratings of intergroup similarity, and similarity of self to the two ingroup members within the team as well as the two outgroup members within the team. Analysis demonstrated that, compared with converging-category assignment, cross-cutting categories and role assignments decreased perceptions of intra-category similarity and increased perceptions of inter-category similarity. Moreover, similarity mediated the effects of crossed versus convergent role assignments on discrimination. Hence, cross-cutting categorisation appears to be beneficial in terms of improving intergroup relations (but also see Vescio, Judd, & Kwan, 2004), though it has been studied mainly in laboratory contexts, not in applied settings.

### ***Direct intergroup contact and public-police relations***

Another way to reduce prejudice among members of different groups is to bring them into contact. The intergroup contact hypothesis (Allport, 1954) holds that, in order for contact between members of different social groups to yield positive effects in terms of a reduction in prejudice and intergroup bias, mere quantity is not sufficient and may often even be counter productive. Instead, four basic conditions, constituting *quality* of contact, should be present: equal status (both within the specific contact situation and on a societal level), common goals, intergroup cooperation, and institutional support. In his reformulation of the contact hypothesis, Pettigrew (1998) added a fifth key condition: the potential for the members of the different groups to become friends. Intergroup contact between the police force and members of the public ostensibly violates most of these conditions. Yet, contact between these groups of people has been demonstrated to render beneficial outcomes (Eller et al., in press; Viki et al., 2006), which is in line with Pettigrew and Tropp's (2006) meta-analysis that showed that even contact under sub-optimal conditions (i.e., those lacking Allport's key conditions) can reduce prejudice to a meaningful degree.

### ***Extended contact***

A further, relatively recent, development in the intergroup contact literature is the *extended contact hypothesis* (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). This proposes that 'knowledge that an in-group member has a close relationship with an out-group member can lead to more positive intergroup attitudes' (Wright et al., 1997, p. 74). This is comparable to Pettigrew's (1998) emphasis on friendship potential during intergroup contact, but on an indirect, vicarious level. It is also interesting to note that, when extended contact is operationalised as the *number of ingroup members known by the respondent to have at*

*least one friend in the target outgroup* (as was the case in the original Wright et al. article, as well as in the present research), it constitutes a combination of quantity (number of ingroup members known) and quality (friendship between in- and outgroup member) of contact.

There are several advantages associated with extended contact (Wright et al., 1997). First, extended contact would make widespread reductions in prejudice possible without everyone having to have direct outgroup friendships themselves — an enormous potential for a general amelioration of intergroup relations. Second, in a cross-group friendship, group membership is more likely to be salient to an observer (who is less acquainted with the persons' individuating features) than to the friends themselves, which aids the generalisation of favourable effects to the group as a whole (Brown & Hewstone, 2005). And third, being an observer rather than a participant in a cross-group friendship should keep at bay any intergroup anxiety or other negative emotions, which might arise during interaction and hamper its chances of success (Stephan & Stephan, 2000).

There is only a handful of published empirical demonstrations of the extended contact effect. Wright et al. (1997) found support for their model in two questionnaire studies, a laboratory-constructed group conflict study, and a minimal group experiment, both with (racial) majority and minority group participants in the USA. Knowledge of a cross-group friendship, the number of such friendships known, and the perceived closeness of these friendships were all associated with lower outgroup bias. Moreover, extended contact had the capacity to reduce laboratory-induced intergroup conflict.

The extended contact effect has also been corroborated in a large field experiment in Finnish schools (Liebkind & McAlister, 1999) using an intervention that consisted of peer modelling and group discussions about contact with outgroup members ('foreigners' in general). Intergroup bias scores remained stable or significantly improved from baseline to follow-up survey for students in the experimental group, while they deteriorated or remained stable for students in the control group. Similarly, Cameron and Rutland (2006) implemented a six-week intervention with five to ten-year-olds in British schools, which consisted of reading stories (followed by group discussion) about disabled and non-disabled children in friendship contexts. Extended contact improved children's attitudes towards the disabled and this effect was most pronounced when group boundaries were made salient, as opposed to decategorised (stressing personal information about individuals) or neutral (neither decategorised nor saliently categorised) conditions.

Paolini, Hewstone, Cairns, and Voci (2004) conducted two surveys of Catholics and Protestants in Northern Ireland, assessing direct and extended cross-group friendships, intergroup anxiety, prejudice towards the religious outgroup, and perceived outgroup variability. They showed that both direct and extended contact were associated with lower levels of prejudice and with increased perceived outgroup variability. Moreover, both contact variables negatively related to intergroup anxiety, which, itself, was negatively associated with prejudice and positively associated with outgroup variability. Anxiety mediated between contact and outcome variables. It should be noted that extended contact had anxiety- and prejudice-reducing effects even though it was operationalised more

stringently than in the original Wright et al. article: Instead of measuring the number of ingroup *acquaintances* who had outgroup friends, the authors assessed the number of ingroup *friends* with outgroup friends, thereby reducing the potential occurrence of extended contact. So despite ubiquitous segregation based on religious affiliation, Northern Irish society appears to be characterised by relatively high levels of intergroup contact between Protestants and Catholics.

Finally, Abrams, Eller, and Bryant (2006) showed that older adults' extended contact with younger people mitigated the effects of stereotype threat on anxiety during a cognitive test. Threat had a large, significant effect on anxiety among participants with relatively less extended contact, whereas its effect on those with relatively more extended contact was non-significant. Applying these findings to the current research context, as reviewed above, black people are well aware of the negative stereotypes the police and society in general hold of them (stereotype threat), which is likely to be accompanied by heightened levels of anxiety during negative interactions with the police, often leading to self-fulfilling prophecies in terms of actual (criminal) behaviour. However, as the Abrams et al. (2006) study suggests, this vicious circle might be broken by (positive) extended contact.

In summary, research on the extended contact hypothesis, though very promising, has been relatively scarce during the past decade. Also, it has been tested almost exclusively in relation to large social categories, such as race, religious affiliation, and nationality. The current research investigates extended contact in the context of public–police relations. Here it should be particularly useful and relevant, given that not that many members of the public are likely to have direct friendships with police officers, in contrast to intergroup contexts of, say, racially mixed university campuses. Another strength of the present research is that it supplements the classic outcome measures in the contact literature: These have usually been intergroup attitudes, prejudice, or affect, while the present research assesses participants' willingness to join the police force; that is, their intentions to perform a certain *behaviour* that establishes a closer relationship with the outgroup. This widens the range of dependent variables examined as a function of intergroup contact and constitutes a variable with immediate real-world implications (see also Viki et al., 2006).

## PRESENT STUDY

The present research integrates the concepts of extended contact and crossed-categorisation and applies them to the real-world intergroup context of public–police relations. We assessed the effects on public–police relations of knowing a black person who has a friendship with a black police officer (*extended double ingroup* for blacks and *extended double outgroup* for whites), knowing a black person who has a friendship with a white police officer (*extended mixed group-white* for both races), knowing a white person who has a friendship with a black police officer (*extended mixed group-black* for both races), and knowing a white person who has a friendship with a white police officer (*extended double ingroup* for whites and *extended double outgroup* for blacks), separately for blacks and whites. Participants

were black and white university students, who completed measures of extended contact (separately for the four possibilities described above), perceived racism on the part of the police, general view of the police, desired closeness to police, and willingness to join the police force.

One could argue that this setting, in which black versus white constitutes one dimension of categorisation and member of public versus police officer constitutes the other, is not a valid representation of (extended) crossed-categorisation because the two categories are not psychologically equivalent. In other words, being black versus white might be more salient and cognitively accessible than being a member of the public versus police. This might often be the case. Nonetheless, as argued by self-categorisation theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), the process of self-categorisation is inherently comparative, fluid, context dependent, and relative to a frame of reference. So, while there are many situations in which the black–white dichotomy overrides any other basis for categorisation, one can imagine that in a socially and economically disadvantaged area such as South London, where the present research took place, it is equally relevant for people to think of themselves as (black or white) members of the public versus the police force. In a similar vein, Crisp et al. (2001) found Northern Irish participants to use not only religion but also gender as a basis of social categorisation, showing that people do use multiple dimensions of categorisation, even non-obvious ones.

The present study constitutes one of the first field tests of the crossed-categorisation model (but also see Crisp, Hewstone, & Cairns, 2001, who examined crossed-categorisation with respect to religious and gender categories in Northern Ireland). It is also the first to *combine* extended contact theory with the crossed-categorisation model. Theoretically, this broadens the potential usefulness of crossed-categorisation to reduce intergroup bias and promote cooperation by extending it to observed, rather than experienced, cross-cutting categorisations. At the same time, this study differentiates between various types of black–white public–police extended contact, showing when extended contact is most likely to be successful. At an empirical level, the combination of these two theoretical approaches mirrors the complexity of racial factors within public–police relations and can point to ways of improving them.

## **Hypotheses**

With respect to race differences, we predicted that blacks will show lower desired closeness to police, less positive general view of police, higher perceived racism of police, and less willingness to join the force than whites (Havis & Best, 2004).

Further, according to the additive pattern of crossed-categorisation effects, we hypothesised that the extended double ingroup (black member of public–black police officer for blacks, and white member of public–white police officer for whites) will be associated with the most positive public–police relations (high desired closeness, positive general view, low perceived racism, and high willingness to join the force) in comparison to the other types of



extended contact. That is, the more ‘double ingroup’ extended contact participants have, the more positive their relations with police should be. In contrast, the extended double outgroup (black member of public–black police officer for whites and white member of public–white police officer for blacks) should be associated with the most negative public–police relations in comparison to the other types of extended contact (or, it will be ineffective at best, not significantly predicting any of the outcome measures). Hence, the more ‘double outgroup’ extended contact participants have, the more negative their relations with police should be. Finally, the two extended mixed groups (black member of public–white police officer or white member of public–black police officer) should fall in between the two extremes of double ingroup and double outgroup extended contact.

As an alternative to the additive pattern, we predicted the occurrence of a social exclusion pattern for white participants and a social inclusion pattern for black participants. In practice this means that, for white participants on the one hand, white member of public–white police officer extended contact will be associated with positive public–police relations and the other three types of extended contact will be associated with negative public–police relations. For black respondents, on the other hand, white member of public–white police officer extended contact should be related to negative public–police relations, while all three other types of extended contact should be associated with positive public–police relations.

## METHOD

### *Participants*

Participants were 130 (76 men, 54 women) students from a university in South London. There were 67 white and 63 black (self-reported racial category) participants with a mean age of 21.4 years (range = 16–40 years).<sup>2</sup>

## PROCEDURE

Potential participants were approached by the researcher within the college. The researcher introduced herself to the students and asked whether they would like to participate in a study about the British police force. Participants completed the questionnaires individually. Participation was voluntary and respondents were informed that they were free to withdraw from the study at any time and that all their responses would be treated completely confidentially. Once they had finished, participants were debriefed, thanked, and paid £2.

### *Measures*

#### Predictor variables

The predictor variables were the four different possibilities of extended contact: White person–white police officer, white person–black police officer, black person–black police



officer, and black person–white police officer. These were assessed with single items ('How many white people do you know who have at least one white Police Officer as a friend?', 'How many white people do you know who have at least one black Police Officer as a friend?' etc.) and scored on 8-point scales, ranging from '0' to '7 or more'.

### Criterion variables

These were *general view of the police force*, *social distance / desired closeness to police officers*, *perceived racism of the police*, and *willingness to join the police force*. General view of the police force was assessed by means of 11 items, such as 'The salary is good' and 'My friends/family would ridicule me if I joined the police force'. Responses were scored on 7-point scales ranging from *agree* (1) to *disagree* (7), with certain responses being reverse-scored, such that higher scores reflect a more positive general view of the police force ( $\alpha = 0.73$ ). *Social distance / desired closeness to police officers* (cf. Bogardus, 1933) was measured by asking, 'How much would you like to have a police officer as ... (a) a community worker, (b) a fellow student, (c) a personal friend, (d) your best friend, (e) your boyfriend or girlfriend?' Responses were scored on 7-point scales ranging from *not at all* (1) to *very much* (7) such that higher scores indicate more desired closeness ( $\alpha = 0.84$ ).

We assessed *perceived racism of the police* with six items, such as, 'In your opinion, do you think the Police treat Asian people better, worse or the same as white people?' (*much worse–much better*) and 'In general, do you think the Police are more likely to use physical force against black people, or against white people, or do you think there is no difference?' (*more likely against blacks–more likely against whites*). Responses were scored on 7-point scales and some responses were reverse-scored such that higher scores indicate more perceived racism ( $\alpha = 0.79$ ). *Willingness to join the police force* was measured with a single item ('How willing are you to join the police force?'), scored from *not very willing* (1) to *very willing* (7), such that higher scored denoted higher willingness to join the police.

## RESULTS

### *Interrelationships among variables*

Table 1 displays the descriptive statistics and the results of correlation analysis among all variables, separately for whites and blacks. Focusing on the interrelationships among predictor variables and among criterion variables, respectively, for both whites and blacks, the four measures of extended contact were highly and positively interrelated. For both white and black participants, general view of the police was associated negatively with perceived racism and positively with desired closeness and willingness to join the police. In addition, perceived police racism was negatively associated with desire to join the police. Among white participants only, desired closeness was also significantly related negatively to perceived racism and positively to willingness to join.

**Table 1.** Means, standard deviations, and zero order correlations (Pearson's *r*) among variables for whites (*N* = 67; above diagonal) and blacks (*N* = 63; below diagonal)

Measure	Mean and SD		Correlations							
	(whites)	(blacks)	1.	2.	3.	4.	5.	6.	7.	8.
1. Black <sup>a</sup> -white extended contact	0.31 (0.82)	0.56 (1.19)		0.76***	0.72***	0.46***	-0.05	-0.08	-0.06	-0.12
2. Black <sup>b</sup> -black extended contact	0.27 (0.79)	0.68 (1.56)	0.59***		0.69***	0.50***	-0.25*	-0.20	-0.05	-0.14
3. White <sup>a</sup> -white extended contact	0.70 (1.15)	1.44 (2.21)	0.48***	0.47***		0.76**	-0.17	-0.10	-0.01	-0.02
4. White <sup>b</sup> -black extended contact	0.54 (1.28)	0.43 (1.09)	0.51***	0.61***	0.40***		-0.23	-0.24*	0.10	-0.21
5. Desired closeness to police	3.68 (1.26)	2.50 (1.29)	0.23	0.09	0.15	0.33**		0.53***	-0.30*	0.45***
6. General view of police	3.91 (0.84)	3.10 (0.98)	0.26*	0.17	0.25*	0.14	0.38**		-0.45***	0.65***
7. Perceived racism	4.74 (0.95)	5.63 (0.97)	-0.29*	-0.33**	0.04	-0.37**	-0.24	-0.39**		-0.28*
8. Willingness to join police	2.03 (1.55)	1.33 (1.00)	0.11	0.04	0.14	0.24	0.20	0.27*	-0.28*	

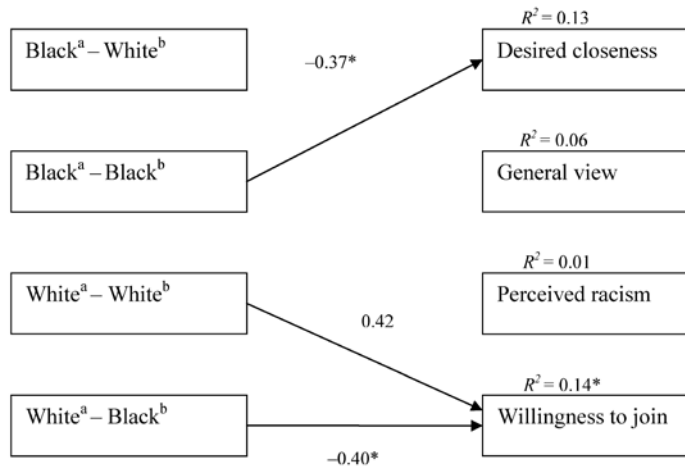
**Notes:** <sup>a</sup> = public, <sup>b</sup> = police. Frequencies of types of extended contact: black-white: 18% (whites), 26% (blacks); black-black: 14% (whites), 22% (blacks); white-white: 36% (whites), 40% (blacks); white-black: 21% (whites), 16% (blacks). \* *p* < 0.05; \*\* *p* < 0.01; \*\*\* *p* < 0.001.

There are three peculiarities associated with the extended contact data. First, as can be seen in Table 1, the four extended contact variables are all positively skewed, with a majority of respondents reporting no extended contact whatsoever. Hence, while the regression analyses below can attest to the effects of different amounts of extended contact on the outcome variables, a higher variability in the data might have produced a different picture with more significant relationships. Second, the only extended contact variable with a mean response greater than 1 is white person–white police extended contact for black participants. This seems odd, but might partly be explained by the fact that blacks tend to have more white friends than the other way around (because of the numerical minority status of blacks in society as a whole), combined with the comparatively low numbers of black police officers. And third, the high inter-correlations among the four extended contact variables are noteworthy. Inspecting the data, what appears to cause these large correlations is a pattern in which a high proportion of participants do not have any extended contact at all (as seen in the means),<sup>3</sup> while a smaller number of participants have several types of extended contact at the same time. Hence, these participants know several people who have at least one police officer as a friend.

### **Effects of extended contact**

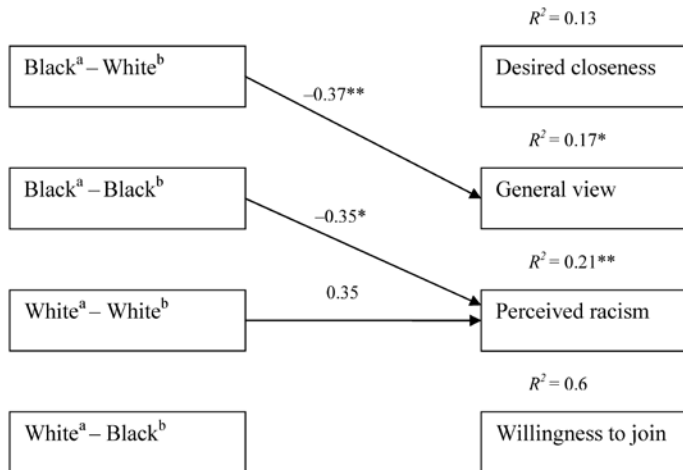
In order to test the effects of extended contact for each dependent variable we conducted multiple linear regression analyses, simultaneously entering all four extended contact predictors. Given the skewed nature of these variables, we dichotomised them into those participants who had no extended contact and those participants who had some extended contact. Among white participants, black person–white police extended contact had no significant effects, black person–black police (double outgroup) extended contact predicted decreased desired closeness,  $\beta = -0.37$ ,  $t = -2.03$ ,  $p < 0.05$ , white person–white police (double ingroup) extended contact was associated with higher willingness to join the police force,  $\beta = 0.42$ ,  $t = 2.52$ ,  $p < 0.01$ , and white person–black police extended contact was related to lower willingness to join the force,  $\beta = -0.40$ ,  $t = -2.33$ ,  $p < 0.05$  (see Figure 1).

Among black participants, black person–white police extended contact was associated with a more positive general view of the police,  $\beta = 0.37$ ,  $t = 2.60$ ,  $p < 0.01$ , black person–black police (double ingroup) extended contact was related to lower perceived racism,  $\beta = -0.35$ ,  $t = -1.98$ ,  $p < 0.05$ , while white person–white police (double outgroup) extended contact was associated with higher perceived racism,  $\beta = 0.35$ ,  $t = 2.26$ ,  $p < 0.05$ . White person–black police extended contact had no significant effects (see Figure 2).



**Notes:** <sup>a</sup> = public, <sup>b</sup> = police. Only significant paths are shown. Unless otherwise indicated, numbers are standardised partial regression coefficients (β). \*  $p < 0.05$ ; \*\*  $p < 0.01$ .

**Figure 1.** White participants: Measures of extended contact as predictors of desired closeness, general view of police, perceived racism, and willingness to join the police force



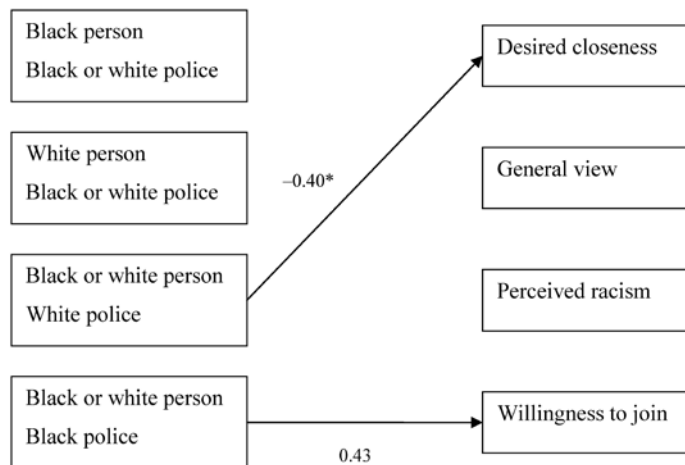
**Notes:** <sup>a</sup> = public, <sup>b</sup> = police. Only significant paths are shown. Unless otherwise indicated, numbers are standardised partial regression coefficients (β). \*  $p < 0.05$ ; \*\*  $p < 0.01$ .

**Figure 2.** Black participants: Measures of extended contact as predictors of desired closeness, general view of police, perceived racism, and willingness to join the police force

**Extended contact: Race of acquaintance or race of police officer?**

Based on the regression analysis results reported above, we were interested in finding out whether the effects of extended contact are due primarily to the race of acquaintance (member of the public) or the race of the police officer. Hence, we combined two of the extended contact measures in different ways, which resulted in four new variables: black person–black or white police, white person–black or white police, black or white person–black police, black or white person–white police. We performed regression analyses with either the first two novel variables as predictors or the last two novel variables as predictors, respectively (depicted jointly in Figures 3 and 4, respectively).

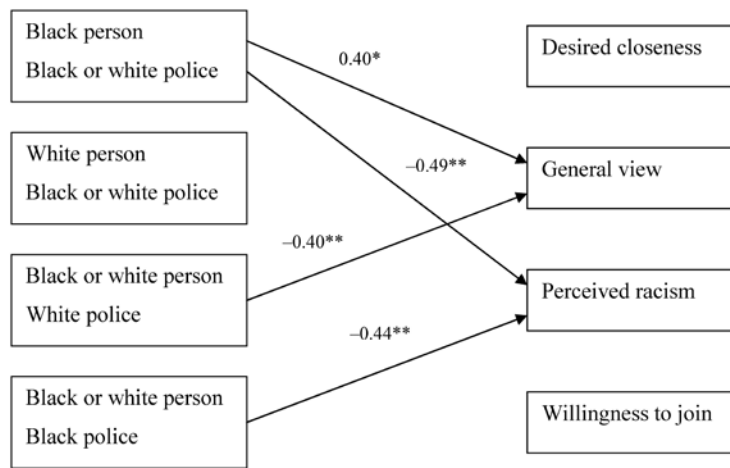
For whites, race of the acquaintance had no significant effects. Examining the race of the police officer and averaging across the race of the acquaintance, there were no significant effects associated with the white police officer, while more extended contact with the black police officer was marginally related to less desired closeness,  $\beta = -0.40, t = -1.95, p < 0.06$ , and less willingness to join the force,  $\beta = -0.43, t = -2.05, p = 0.04$  (see Figure 3).



**Notes:** Numbers are standardised partial regression coefficients ( $\beta$ ).  $*p < 0.05$ ;  $+p < 0.06$ . Paths with higher associated probability values are not shown.

**Figure 3.** White participants: Different combinations of extended contact as predictors of desired closeness, general view of police, perceived racism, and willingness to join the police force

For blacks, there were no significant effects associated with the white acquaintance, whereas more extended contact with a black acquaintance was related to lower perceived racism,  $\beta = -0.49, t = -2.80, p < 0.01$ , and to a more positive general view of police,  $\beta = 0.40, t = 2.26, p < 0.05$ . Looking at the effects of race of police officer, more extended contact with the white police officer was associated with a more positive general view of police,  $\beta = 0.40, t = 2.55, p < 0.01$ , while more extended contact with the black police officer predicted lower perceived racism,  $\beta = -0.44, t = -2.80, p < 0.01$  (see Figure 4).



**Notes:** Only significant paths are shown. Unless otherwise indicated, numbers are standardised partial regression coefficients ( $\beta$ ). \*  $p < 0.05$ ; \*\*  $p < 0.01$ .

**Figure 4.** Black participants: Different combinations of extended contact as predictors of desired closeness, general view of police, perceived racism, and willingness to join the police force

## DISCUSSION

The present study investigated black–white race differences with respect to extended public–police contact, perceived racism and general view of police, willingness to join the police force, and desired closeness to police officers in Britain. This research broadens the public–police contact literature by investigating extended as opposed to direct contact. It also enriches the relatively novel extended contact literature by examining an intergroup context not based on large-scale social categories, but on a professional group and members of the public. Finally, the current study constitutes one of the first field investigations of the crossed-categorisation model and is the first research to combine the extended contact model with the crossed-categorisation literature.

For the most part, our results support our predictions. Blacks were shown to desire less closeness with police, perceive more racism on the part of police, have a less positive general view of police, and to be less willing to join the force than whites. These findings corroborate the literature on public–police contact and relations (e.g., Havis & Best, 2004; Viki et al., 2006). One of our predictions was to expect an additive pattern of crossed-categorisation effects, such that the extended double ingroup would be associated with the most positive public–police relations, the extended double outgroup would relate to the most negative public–police relations (or, that it would not significantly predict any of the outcome measures), with the two extended mixed groups falling in between these

two extremes. Instead, we appear to have found a social exclusion pattern for whites (all groups that are outgroup on at least one dimension are evaluated equally negatively) and a social inclusion pattern for blacks (all groups that are ingroup on at least one dimension are evaluated equally positively),<sup>4</sup> which is wholly in line with our alternative hypothesis. As suggested above, this pattern might be due to differential perceptions of threat to their social identity among white and black respondents (Miller, 1992, in Crisp & Hewstone, 1999).

The findings also revealed that these extended crossed-categorisation effects were driven by the race of the police officer for white participants and by race *per se* for blacks. The finding that extended contact between a (black or white) member of the public and a black police officer had such detrimental effects among white participants might be due to the fact that the latter are disturbed by the concept of a black person in a position of higher power and status relative to them. This possibility is quite disconcerting given that the proportion of police officers who belong to ethnic and racial minority groups is quite low in the UK as it is, and measures should be taken to increase it.

Another noteworthy finding is that, for white participants, extended contact only affected desired closeness to police officers and willingness to join the force, but not general view of police and perceived racism. For black participants, the pattern was exactly the reverse. The former two are individual-level variables and the latter two more societal-level measures. It is interesting that these two sets of measures vary differently with participants who belong to a macro-societal status minority (blacks) versus majority (whites) group.

The present research is limited in that we used a cross-sectional design, which cannot establish causality. For instance, black person–black police extended contact is associated with lower desired closeness with police for white participants. We took this as evidence that knowing a black member of the public who has a black police officer as a friend drives the decrease in desired closeness for whites. However, it is also possible that white participants who have a generally low desire for closeness with police will think of greater numbers of black acquaintances who have black police officers as friends. A longitudinal design would have been able to establish causality more unequivocally.

This limitation notwithstanding, the present study has demonstrated that the substantial and pervasive race differences in terms of public–police relations may be mitigated by extended contact. For black people, extended contact with the police is beneficial even when crossing racial lines. The finding that cross-race extended contact has positive associations with blacks' views of the police (in contrast to those of whites) suggests that this could be a valuable means of helping to build more constructive and trusting relationships without the requirement for direct contact. More generally, the current research indicates that extended contact may be effective in improving intergroup relations between the public and a professional group required to act as an agent of social control, which is particularly relevant in times of increased police presence and surveillance in response to terrorism. This supplements previous research that has focused only on large-scale social categories.



This may well be relevant for other professional groups that are required to act as agents of institutional authority and control (ranging from soldiers to teachers, social workers, or even auditors) and with whom positive intergroup relationships are essential for the smooth and effective management of social order.

Further, this research constitutes one of the few investigations of crossed-categorisation outside the laboratory (but see Crisp et al., 2001). It might also be the first to find evidence of the patterns of social inclusion and social exclusion in a field setting (see Crisp & Hewstone, 1999) and to show that these might be contingent on (majority versus minority) group membership. Finally, it is innovative in that it combined extended contact with crossed-categorisation. This strategy revealed, first, that cross-cutting categories to reduce intergroup bias may be effective both on a personal, direct level, and also indirectly, through observed crossed categorisations. Assessment of extended contact may also benefit from a more differentiated approach, particularly in complex intergroup relations that involve a number of bases of categorisation. After all, individuals rarely find themselves in a simple ingroup–outgroup context in real life, but simultaneously identify with multiple ingroups, some more salient than others at different times (cf. Crisp et al., 2001; Roccas & Brewer, 2002).

Future research should examine whether the social inclusion/exclusion dichotomy for blacks and whites in the current study is a generalised phenomenon or specific to the present research. If the effect is replicable, it is important to discover what the driving factors are (e.g., ethnocentrism or social dominance) for the social exclusion pattern for majority group members and how they can be countered in order to encourage a social inclusion pattern. The promotion of a common ingroup (Gaertner & Dovidio, 2000) comes to mind. Crisp, Hewstone, Richards, and Paolini (2003) demonstrated that a common ingroup identity moderated crossed-category evaluations in a computer-base minimal group paradigm. Inducing a common ingroup might also work quite well in the context of extended contact.

Moreover, it is also crucial to investigate what factors could improve police officers' (particularly, the white majority) attitudes towards and treatment of minority group members. One possibility is teaching about other cultures and subcultures during police officer training — something the Metropolitan Police Service (2005) is already doing — and promoting high-quality contact with relevant individuals. Another possibility would be to assess the effectiveness of extended contact among police officers. Specifically, the occurrence of white police officer–black member of the public extended contact and its impact on anti-black prejudice should be investigated. Alternatively, an intervention-type study similar to Liebkind and McAlister's (1999) and Cameron and Rutland's (2006) research with school children might prove effective with members of the police force. In summary, as well expanding the general scope of effects that may result from extended contact, the present findings suggest that extended contact may offer a means of establishing greater trust and mutual respect between minority groups and the police service. Ultimately this could also help to encourage recruitment and better representation of these minorities within the service.

## NOTES

1. This research is part of the last author's M.Sc. research. Writing of this article was supported by a British Academy Post-Doctoral Fellowship to the first author. Different aspects of the same dataset were reported in Eller, Abrams, Viki, Imara, and Peerbux (in press).
2. Unfortunately, we did not keep records of participant refusal rates. Neither did we allow participants the option to indicate that they were bi-racial. The racial composition of the sample is not representative of the population of the City of London where the data were collected. Rather, we over-sampled black participants. In London, 29% of residents are classified as non-white, according to the 2001 census. The recruitment process did not focus on race (participants were simply approached and asked whether they would participate in a questionnaire study), such that it is unlikely that respondents' race was made salient through the process of recruitment. As reported, racial categories were self-identified, and we assume that these categories had the same meaning for participants as the questions about white and black acquaintances and police officers.
3. Nonetheless, we wanted to include these participants in the analyses in order to examine the effects of differing amounts of extended contact versus no extended contact.
4. We should draw attention to the fact that, while the extended contact involves both members of the public and the police, the final evaluations are of police officers only.

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