



Race and willingness to cooperate with the police: The roles of quality of contact, attitudes towards the behaviour and subjective norms

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Black individuals are usually reluctant to co-operate with the police (Smith, 1983a). We propose that a history of unpleasant interactions with the police generates hostile attitudes towards the institution (Jefferson & Walker, 1993). Using a sample of 56 black and 64 white participants, we examined whether quality of contact predicts black people's attitudes and subjective norms concerning co-operating with the police. Our findings indicated that the Contact Hypothesis (Pettigrew, 1998) and Theory of Planned Behaviour (Ajzen, 1991) jointly provide some insight into the disinclination of black individuals to co-operate with the police. We found that the relationship between race and attitudes or subjective norms concerning co-operation with police investigations was mediated by quality of previous contact with the police. In turn, the relationship between quality of contact and willingness to co-operate with police investigations was mediated by both attitudes and subjective norms. Theoretical and practical implications are discussed.

The relationship between Black people and the police in Britain and the United States has historically been, and continues to be, difficult. For example, in Britain, fewer Black people have voluntary contact with the police, in comparison to individuals of other ethnicities (Clancy, Hough, Aust, & Kershaw, 2001). Although there are no racial differences in the experience of crime, fewer Black people (9%) appear willing to provide evidence to the police in comparison to Whites (12%; Clancy *et al.*, 2001). Research evidence indicates that Black people in comparison to White people, are less willing to give witness statements, identify culprits or give evidence in court (Jefferson & Walker, 1993; Smith, 1983a). Such reluctance appears to be particularly high among Britain's young Black population (Smith, 1993b).

In 1999, Sir William Macpherson concluded, after the inquiry into Stephen Lawrence's death, that the police as an organization were institutionally racist (Macpherson, 1999). Stephen Lawrence was a young Black male who had been

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murdered on the streets of London. However, the police force responsible for the investigation failed to conduct it properly, prompting complaints and a public inquiry. In line with Sir William Macpherson's conclusions, Black people in Britain also appear to perceive the police as prejudiced against them (Stone & Pettigrew, 2000; Stone & Tuffin, 2000). This might be one of the reasons Black people are less willing to cooperate with the police than Whites are. Such perceptions of the police may result from personal experiences or the experiences of close friends with the police (Oskamp, 1991). Negative interactions with the police may influence people's attitudes towards the police. In general, the Black community reports less positive experiences of interacting with the police than do Whites (Clancy *et al.*, 2001).

Given that the police and the criminal justice system depend on public cooperation in order to be effective (cf. Woods & Viki, 2004), the above findings are a cause for great concern. The current research examines the role of the quantity and quality of contact with the police with respect to the reported racial differences in the willingness to cooperate with criminal investigations. We examine whether contact accounts for race differences in attitudes towards helping the police, subjective norms about helping the police, and perceived behavioural control. We also examine whether contact with the police is responsible for the difference between Black and White people's intentions to report an incident to the police, to provide a witness statement and to give evidence in court.

Intergroup contact and intergroup relations

In his seminal book *The Nature of Prejudice* (1954), Gordon Allport presented the contact hypothesis. He argued 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, four fundamental conditions must be present: equal status (both within the specific contact situation and more generally), common goals, intergroup cooperation and support of the authorities. As would be expected, contact being voluntary is an aiding factor, particularly with respect to the second and third conditions. In his review of half a century's research on the contact hypothesis, Pettigrew (1998) added a fifth key condition: the potential for the members of the different groups to become friends. In a way, Allport's original four conditions are a prerequisite for this last condition. If contact takes place between members of unequal status groups, who do not have common goals and do not cooperate, it is unlikely for these people to form friendships (cf. Pettigrew & Tropp, 2005).

Intergroup contact between the police force and members of the public ostensibly violates most of these conditions. When the police and the public interact, it is almost always the case that there are significant status differences, with the police wielding most of the authority. Moreover, contact with the police is often not voluntary. This is true of 'stop and search'¹ situations, but not necessarily so with instances when people report crimes to the police. The police and members of the public may also diverge on common goals (e.g. when a suspect is arrested). Interactions between the public and the police in these circumstances are not always cooperative but may be conflictual. This situation obviously makes friendship formation highly unlikely as well. Finally, among Black people, negative perceptions may be heightened by the view that police, as an institution, do not represent their interests, but rather those of the White majority.

¹ In the UK, the police have special powers to 'stop and search' individuals who they suspect are committing or have committed a crime.

However, Allport's key conditions may not be absolutely necessary for contact to render beneficial effects. Pettigrew and Tropp (2005) conducted a meta-analysis of the contact literature including 516 studies with 715 independent samples from 38 nations, and showed that those samples with optimal contact conditions yielded significantly greater reductions of prejudice ($r = -.29$) than those without optimal conditions ($r = -.20$). However, the results show that while Allport's conditions produce the most improvement in intergroup relations, contact still reduces prejudice, even in the absence of these conditions. This makes intergroup contexts, such as the one involving ethnic minorities and the police, seem less daunting than would otherwise be the case.

During the past 50 years, it has been widely shown that contact, under optimal or suboptimal conditions, decreases various forms of bias between groups. However, the groups under investigation have mostly been racial, ethnic or national groups (52% of all samples in Pettigrew and Tropp's meta-analysis). The current study examines racial differences, but with respect to contact with a professional group (i.e. the police). This adds to a body of research making up only 5% of samples in Pettigrew and Tropp's meta-analysis (under the category of 'other' target groups).

There is a body of research, with some contradictory findings, examining contact between the police and members of the public. For example, Sims, Hooper, and Peterson (2002) analysed results from the Harrisburg (Pennsylvania) Citizen Survey to examine whether attitudes towards the police could be predicted by citizens' perceptions of physical and social incivilities, their fear of crime, and contact with police. Structural equation modelling showed contact to have no impact on people's attitudes towards the police. However, it should be noted that contact was poorly operationalized in this research. It was a one-item measure of the amount of citizen-initiated contact (number of times citizens contacted the police 6 months prior to the telephone survey). This measure did not consider the qualitative aspects of the contact between the police and the public.

Cheurprakobkit (2000) conducted a telephone survey in Texas among people who had had contact with the police. He found that citizens who initiated contact with the police had more positive views of police than those whose contacts were initiated by the police. These findings are not surprising because people who voluntarily contact the police are usually not suspects in a crime whereas those who are contacted by the police usually are. Hence, police treatment may differ between these groups of people. However, Cheurprakobkit also found that the more citizens contacted the police, the less they were satisfied with police performance. Because this was a correlational study, one may conjecture that citizens who are not satisfied with police performance will contact police more often than those whose issues have been solved effectively. In a similar vein, Hurst and Frank (2000) conducted surveys among high school students in Ohio. They showed that police-initiated negative contact had negative effects on juveniles' attitudes towards police and citizen-initiated positive contact had positive effects on people's attitudes towards police. In contrast, police-initiated positive contact and citizen-initiated negative contact had no significant effects on attitudes.

Hopkins, Hewstone, and Hantzi (1992; also see Hopkins, 1994) conducted a longitudinal study to evaluate the impact of police-schools liaisons on 1,245 secondary school students' attitudes towards the police in Britain. They found that although school-time contact with school liaison officers (SLO) increased significantly during the year of the study, the overall amount of contact was very low (means of 5.67 and 6.08, respectively, on a scale from 3 to 21). In fact, there was no significant difference in amount of contact between schools with SLO and those without SLO. Moreover, both

types of school contact at Time 1 did not significantly predict liking of the police at Time 2. It should be noted, however, that this investigation examined the quantity but not the quality of contact, which is pivotal for reducing prejudice and increasing liking. Finally, Brown and Benedict (2002) reviewed over 100 articles on perceptions of and attitudes towards the police and concluded that these are predicted by age, race, neighbourhood and contact with the police.

The present research extends the above literature with respect to three issues. First, we measure public-police contact not only in terms of its quantity, but also in terms of its quality, an often ignored aspect. This should heighten the correspondence between contact and outcome variables. Note, however, that we do not assess whether contact is citizen- or police-initiated as quality of contact is presumed to supersede this distinction (cf. Cheurprakobkit, 2000). Second, while in the contact literature, the typical outcome measures have been intergroup attitudes, prejudice or affect, the present study assesses attitudes and intentions to perform certain *behaviours*. This widens the range of dependent variables examined as a function of intergroup contact and constitutes a set of variables that are relevant for improving the public's cooperation with the police in fighting crime. Finally, we are testing a set of variables proposed to *mediate* between contact and outcome measures. Pettigrew (1998), in his review and reformulation of the contact hypothesis, declared one of the four major problems with Allport's theory to be the 'unspecified processes of change problem'. The original contact hypothesis only predicted *when* contact would lead to positive change, but not *how* and *why*. Hence, the current research is a step towards ameliorating that flaw.

The theory of planned behaviour

A possible psychological mechanism through which quality and quantity of contact may impact on people's intentions to cooperate with the police is through their influence on attitudes, subjective norms and perceived behavioural control. In their theory of planned behaviour (TPB), Ajzen and colleagues (Ajzen, 1991; Ajzen & Fishbein, 2005; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) proposed that intentions are the immediate antecedents of behaviour, representing a state of readiness. Since our research focuses on intentions to cooperate with the police should a crime be witnessed, it is important to consider the factors that have been proposed by the Ajzen and colleagues as being the predictors of intentions to perform particular behaviours.

According to the TPB, intentions to perform a particular behaviour are generated from beliefs concerning the outcome of the behaviour. There are three types of beliefs: beliefs about the probable positive or negative consequences of performing the behaviour (or behavioural beliefs), beliefs about the expectations of others with regards to performing the behaviour (or normative beliefs), and beliefs about the ease of accomplishing the behaviour (or control beliefs; Bamberg, Ajzen, & Schmidt, 2003). When these beliefs are considered or assessed together, behavioural beliefs produce what is referred to as *attitudes towards the behaviour*, normative beliefs produce what is referred to as *subjective norms* concerning the behaviour and control beliefs produce what is referred to as *perceived behavioural control* (Bamberg *et al.*, 2003). Together, attitudes, subjective norms and perceived behavioural control, influence a person's intentions to perform a particular behaviour (see Ajzen & Fishbein, 2005). When people hold positive beliefs on all of the three factors, they are more likely to intend to perform the behaviour in question. Intentions then become the most proximal predictor of behaviour.

Numerous studies have shown support for the predictive value of TPB in various domains, including health behaviour (e.g. cancer check-ups), exercise, eating habits and choice of travel mode (see Ajzen & Fishbein, 2005, for a thorough review). In a meta-analytic review of the predictive value of TPB, Armitage and Conner (2001) noted that the predictive components of the theory had substantial effects upon intentions. Average multiple correlations were .52, accounting for 38% of the variance. Recent studies have also revealed similar effects. For example, Davis, Ajzen, Saunders, and Williams (2002) found that the components of TPB successfully predicted African-American students' intentions to complete high school education ($R = .71, p < .01$). Elliott, Baughan, and Armitage (2003) also reported similar findings regarding to drivers' intentions to comply with speed limits. As such, the theory appears to be able to explain when and how attitudes will influence behaviour.

For the current research, we propose to take a step back in the processes described by TPB. We consider how people's attitudes, subjective norms and perceived behavioural control concerning helping the police may come about in the first place. We propose that intergroup contact may have an effect on people's intentions to cooperate with police via their beliefs and subjective norms concerning the behaviour. Thus, quality and/or quantity of contact with the police may influence people's attitudes, subjective norms, and perceived behavioural control about cooperating with the police. This, in turn, will influence their reported willingness to cooperate with the police. We are unaware of any research that has directly examined the effects of previous contact with a group or object on people's attitudes and subjective norms towards behaving in a certain way towards that group or object. However, there is some research that indicates that previous behaviour can be a good predictor of later action (Ajzen & Fishbein, 2005). Indeed, research indicates that the relationship between previous behaviour and future behaviour may not be fully explained by the components of TPB (e.g. Ajzen, 1991; Norman & Smith, 1995). In one study, adding past behaviour to the TPB components when predicting future behaviour increased the explained variance from 41% to 54% (Norman & Smith, 1995).

There are also numerous studies that have shown that attitudes based on previous experience with the attitude object are stronger than attitudes based on hearsay (see Bohner & Wänke, 2002, for a review). For example, Regan and Fazio (1977) note that direct behavioural experience creates attitudes that are held with greater clarity and confidence than attitudes formed via indirect means. It, therefore, seems logical to predict that previous experience (in our case, intergroup contact) may have a significant influence on people's attitudes towards the behaviour and, therefore, their intentions to perform the behaviour (cf. Bamberg *et al.*, 2003). A negative experience with the attitude object may result in people intending to avoid it in future. This is because such an experience may lead people to develop a negative attitude towards the behaviour in question and also their feelings of control may be affected by the negativity or difficulty of the experience. The research evidence on the contact hypothesis clearly supports this argument.

Regarding subjective norms, one of Pettigrew's (1998) four proposed mediators between contact and outcome measures is *in-group reappraisal*. This is the realization that in-group norms and customs are not the only way to deal with issues. This can possibly be linked to subjective norms by suggesting that contact with the police may affect the way people judge their in-group members' approval of certain behaviours related to cooperation with the police. As such, our current research constitutes an integration of two areas of research that have hitherto been considered separately.

We suggest a possible cognitive mechanism (i.e. attitudes, subjective norms and perceived behavioural control) through which contact might influence behaviour towards out-groups.

Overview and hypotheses

The current research focuses on race differences in people's quantity and quality of contact with the police, and their attitudes towards, subjective norms about, and intentions to cooperate with police if they are witnesses to a crime. Jefferson and Walker (1993) reported such race differences in their survey of 641 Black, Asian, and White men of relatively low socio-economic status in Leeds, UK. Jefferson and Walker found significantly higher disapproval ratings of the police, but not perceptions of the police taking part in various forms of misconduct, among Black compared with White participants. Moreover, the findings revealed that Black respondents were significantly less willing than Whites to report to the police three hypothetical incidents (robbery, vandalism, serious accident), to help identify the culprit and to give evidence in court. This difference was negligible only in the case of reporting a serious accident. Surprisingly, Whites had had a greater number of police-initiated contacts (street stops, house searches and arrests) than Blacks, but personal experience with the police was judged to be equally positive/negative among members of both groups. Examining relationships among variables, group-based attitudinal differences could not be accounted for by differences in direct experience with the police.

The current research builds on and extends Jefferson and Walker's (1993) study. We are employing a theory-based approach, using intergroup contact theory and the TPB to examine the links between participant race, contact with the police, and attitudes towards, subjective norms about, and intentions to cooperate with police. Hence, we are interested in investigating not mere racial differences, but the impact these differences have on a number of other relevant variables. We also use a more fine-grained measure of quality of contact with the police, which we believe should result in more favourable attitudes and subjective norms towards cooperation with the police.

Black and White university students took part in the current study. All participants completed measures of quantity of contact, quality of contact, attitudes towards cooperating with police, subjective norms, perceived behavioural control, and intentions to report an incident to the police, provide a witness statement or provide testimony in court. First, we predicted that Black people would not report more contact with police than White people (cf. Jackson & Walker, 1993). However, we expected that the quality of contact would be poorer for Black people in comparison to White people (cf. Clancy *et al.*, 2001).

Second, it was predicted that there would be race differences in intentions to cooperate with police, with Black people reporting a greater reluctance to provide witness evidence to the police and testimony in court. As in previous studies (e.g. Jefferson & Walker, 1993), we expected Blacks to be less willing to report an incident and to hold more negative attitudes towards cooperating with the police than Whites, accompanied by a stronger subjective norm impeding cooperation. We also expected Black people to report lower levels of perceived behavioural control in comparison to White people. Finally, we expected the combination of the above factors to account for race differences in intentions to cooperate with the police. Quality of contact was expected to mediate the relationships between race and attitudes — race and subjective norms and race and perceived behavioural control. No such predictions

were made for quantity of contact. As already noted above, quantity of contact does not appear to have consistent or robust effects on people's attitudes towards the police (e.g. Sims *et al.*, 2002). In turn, we expected attitudes, subjective norms, and perceived behavioural control to mediate the relationship between quality of contact and intentions to cooperate with the police.

Method

Participants

Participants were 120 students (49 male and 71 female) from Universities in the south-east of England. Participants' ages ranged from 19 to 50 years with 94% of the sample reporting ages under 30 years ($M = 23.98$, $SD = 4.83$). Respondents' self-defined race generated two samples of 56 Black and 64 White participants.²

Materials

Unless otherwise stated, a 7-point Likert type scale was used to measure all responses to the items in the questionnaire. Participants' responses on all items were combined to provide average scores for each participant on each measure.

Intentions to cooperate with the police

Participants anticipated their behaviour by responding to five hypothetical scenarios adapted from Smith (1983b). The scenarios described an offence, which the participant would have witnessed. The scenarios were: 'If you saw someone being beaten up outside a pub. . .', 'If you saw a stranger acting suspiciously outside a neighbour's house. . .', 'If you heard neighbours having a row and thought someone might be injured. . .', 'If you saw someone trying to force their way into a car you knew did not belong to them. . .', 'If you saw people climbing over a back wall of a factory of offices at night. . .'. Participants then indicated how likely it was they would: call the police ($\alpha = .87$), provide witness statements to the police if necessary ($\alpha = .94$), and give evidence in court if necessary ($\alpha = .95$). Scale anchors were 'very unlikely' to 'very likely'. High values indicated willingness to cooperate with the police. Previous research has shown that the seriousness of the criminal act and the culpability of the offender are analogous for all the hypothetical scenarios, permitting responses to be aggregated into scores for each participant for each of the behaviours (Smith, 1983b).

Attitudes

Participants responded to a four-item 7-point semantic differential scale to the following statement, 'Providing assistance to the police is. . .'. The anchors of these scales were as follows: 'Good-Bad', 'Harmful-Beneficial', 'Worthless-Valuable' and 'Useless-Helpful'. Responses to the first item were reverse-scored, such that high scores indicated positive attitudes towards assisting the police ($\alpha = .90$).

² Unfortunately, we did not keep records of participant refusal rates. We also did not provide participants with the option to indicate whether they were bi-racial. The racial mix of the current sample was not representative of the student populations at the universities at which data were collected. Rather, we over-sampled the Black participants. Data were collected as part of the second author's MSc project, hence the sample size was limited by time constraints. All of these are issues that future researchers may want to consider.

Subjective norms

Five items assessed the perceived subjective norm of cooperating with the police. Participants indicated their level of agreement with the following statements: 'Most people who are important to me would provide assistance to the police', 'Most people who are important to me think that I should assist the police', 'It is expected of me to assist the police', 'The people in my life whose opinions I value would approve of my assisting the police', 'The people in my life whose opinions I value would not provide assistance to the police'. High scores indicate a subjective norm favouring cooperation with the police ($\alpha = .76$).

Perceived behavioural control

Four items measured participants' perceived behavioural control concerning cooperating with the police. The following items were used to assess perceived behavioural control: 'It is mostly up to me whether I assist the police', 'For me to assist the police is impossible', 'If I wanted to assist the police I could', and 'How much control do you believe you have over assisting the police?' The higher the score, the more behavioural control participants perceived they had over cooperating with the police ($\alpha = .67$). All items assessing the components of TPB were adapted from Ajzen (2002).

Quantity of contact with the police

Quantity of contact was examined by means of two items concerning respondents' frequency of contact with the police. The first of these items was, 'In general, how much contact do you have with the police in your daily life?' ('none at all' to 'very often'). The second item was, 'If you have contact with the police, how often does it take place' and participants responded on a 4-point Likert type scale ('1 to 6 times a year' to 'daily'; $r = .61, p < .01$).

Quality of contact

Three semantic differential scales examined the qualitative aspects of contact with the police. Participants were asked to think about the typical situation in which they had experienced contact with the police and rate whether the contact was 'Involuntary - Voluntary', 'Very Much Pleasant - Not At All Pleasant', and 'Competitive - Cooperative'. Higher scores indicated a more positive contact experience with the police ($\alpha = .67$).³

Procedure

Participants were approached at various places on the different campuses and asked if they would complete a short questionnaire concerning public attitudes towards the police. Those individuals who volunteered to participate were then presented with a questionnaire booklet containing our measures. The questionnaire was arranged so that participants first completed measures of contact, attitudes, subjective norms, and perceived control, before completing the measures of willingness to help the police. Items assessing contact, attitudes, subjective norms, and perceived control were presented at random in order to avoid order effects. Participants were left to complete

³ Initially, there was a further item in this scale (*Superficial-Intimate*). However, analysis revealed that the quality of contact scale would be significantly more reliable without this item. Consequently, this item is excluded from all further analyses ($-.10$). The value in parentheses indicates the corrected item inter-correlation.

the questionnaire on their own. After completing the questionnaire, participants were thanked and debriefed.

Results

Our analyses focused on the hypotheses of interest to the current study. First, it was important to establish whether there were any race differences on any of the variables we measured. A multivariate analysis of variance (MANOVA) was performed on all eight dependent measures of interest, with race as the independent variable. Means, standard deviations, *F*-scores and effects sizes (partial η^2) are presented in Table 1. This analysis revealed no significant race differences for intentions to report an incident, perceived behavioural control, and quantity of contact with the police. Given that our study's main objective was to account for race differences in people's views of the police, these variables were excluded from further analyses.

Table 1. Means, standard deviations, *F*-values, and effect sizes for all scales

Variable	Mean and SD (Blacks)	Mean and SD (Whites)	<i>F</i> -values	Partial η^2
Attitude	4.33 (1.42)	5.41 (0.98)	24.06**	.17
Subjective norm	4.06 (1.23)	5.09 (1.09)	23.39**	.17
Perceived behavioural control	4.46 (1.26)	4.83 (1.07)	3.26	.03
Quantity of contact	2.08 (1.18)	1.80 (0.93)	2.29	.02
Quality of contact	3.78 (1.57)	4.51 (1.36)	7.41**	.06
Report incident to the police	4.42 (1.64)	4.89 (1.48)	2.70	.02
Provide witness testimony	4.77 (1.86)	5.61 (1.42)	7.84**	.06
Give evidence in court	4.52 (1.99)	5.34 (1.60)	6.23*	.05

Note. * $p < .05$ and ** $p < .01$.

In contrast, and consistent with our predictions, Black participants indicated a significantly greater reluctance to provide a witness statement than White participants did. Analysis also revealed race to be a significant determinant of intentions to provide evidence in court. Black respondents indicated greater reluctance to provide evidence than did White respondents. Attitudes towards the police expressed by White respondents were significantly more positive than were Black respondents'. Black participants also indicated less enthusiastic subjective norms of cooperating with the police in comparison to White participants. Finally, although there were no race differences in quantity of contact, Black respondents reported less positive quality of contact with the police than White respondents.

Correlational analyses were performed to examine the relationships among the variables and the data are presented in Table 2. These analyses revealed that quality and quantity of contact were not significantly correlated; indicating that the variables are relatively independent of each other. However, quantity of contact was negatively related to attitudes and subjective norms, indicating that the greater the amount of contact the more negative people's attitudes are to the police. Quality of contact was positively correlated with all the dependent measures. These findings are a strong indicator of the role of quality of contact in people's perceptions of and intentions to cooperate with the police. The better the quality of contact, the better the attitudes towards the police, and the higher the likelihood of cooperating with police.

Table 2. Inter-correlations of all variables

N = 120	Race	Quality of contact	Quantity of contact	Attitude	Subjective norms	Behavioural control	Intention to report	Intention to give witness evidence	Intention to give evidence in court
Race	—	-.24**	.14	-.41**	-.41**	-.16	-.15	-.25**	-.22*
Quality of contact	—	—	-.16	.58**	.56**	.39*	.38*	.53**	.46**
Quantity of contact	—	—	—	-.33**	-.30**	-.14	-.02	-.12	-.11
Attitudes	—	—	—	—	.73**	.61**	.58**	.75**	.71**
Subjective norms	—	—	—	—	—	.49**	.49**	.67**	.61**
Behavioural control	—	—	—	—	—	—	.43**	.48**	.53**
Intention to report	—	—	—	—	—	—	—	.80**	.76**
Intention to give witness evidence	—	—	—	—	—	—	—	—	.91**
Intention to give evidence in court	—	—	—	—	—	—	—	—	—

Note. * $p < .05$ and ** $p < .01$. Race was code as 0 = White and 1 = Black.

Attitudes, subjective norms, and perceived behavioural control were significantly correlated with the three measures of intentions to cooperate with the police. This offers some support for TPB-based predictions. We therefore ran regression analysis in which attitudes, subjective norms, and perceived behavioural control were entered simultaneously as predictors of intentions to report a crime, provide a witness statement, and give evidence in court. Across all three analyses, the TPB model (i.e. all three factors together) accounted for a significant proportion of the variance in the dependent measures (intention to report $R = .59$, $R^2 = .35$; intentions to provide witness statement $R = .77$, $R^2 = .60$; intentions to give evidence in court, $R = .73$, $R^2 = .53$; all $ps < .001$). These findings are in line with the results of previous research (see Armitage & Conner, 2001). Interestingly, the analyses also revealed that attitudes were the strongest and most consistent predictor of willingness to cooperate (see Table 3). Across all three dependent measures, attitudes significantly predicted willingness to cooperate. Subjective norms only significantly predicted willingness to give a witness statement and were marginally related to intentions to provide evidence in court. Perceived behavioural control was not significantly related to any of the dependent measures, but only marginally predicted intentions to give evidence in court.⁴

Table 3. Regression analysis of the effects of TPB factors on intentions to report, provide witness statement and give evidence in court

Predictor	β	T	Significance
Intentions to report			
Attitudes	0.43	3.54	.001
Subjective norms	0.12	1.09	.276
Behavioural control	0.11	1.12	.267
Intentions to provide witness statement			
Attitudes	0.57	5.90	.001
Subjective norms	0.25	2.85	.005
Behavioural control	0.01	0.13	.899
Intentions to give evidence in court			
Attitudes	0.49	4.75	.001
Subjective norms	0.18	1.86	.065
Behavioural control	0.14	1.77	.079

Mediation analyses

For purposes of this study, we hypothesized that quality of contact would mediate the relationship between race and attitudes, and race and subjective norms. Separate mediation analyses (using regression analysis) were performed to examine the role of contact in the relationship between race and attitudes towards assisting the police; and race and subjective norms. These analyses revealed that the conditions for mediation were met (Baron & Kenny, 1986). The independent variable (race) significantly predicted the mediator (quality of contact) and the dependent variables (attitudes and subjective norms; see Table 2). Furthermore, the mediator significantly predicted the dependent variables (see Table 2). As expected, the relationships between race and attitudes and race

⁴ Mediation analysis also indicated that perceived behavioural control did not mediate the relationship between quality of contact and intentions to help with police investigations (all p 's $> .05$).

and subjective norms, respectively, were significantly reduced once the potential mediator (quality of contact) was included. The relationships were reduced to exactly the same size betas for attitudes and subjective norms ($\beta = -29$, $p < .01$). These results indicate that the effects of race on attitudes and subjective norms are partially mediated by quality of contact. The Sobel's test for significance of the indirect paths via quality of contact supported this proposition. The scores for these paths were $Z = 2.54$, $p < .001$, and $Z = 2.52$, $p < .001$, respectively.

Prior to the next phase of our analyses, we conducted analyses to explore whether quality of contact mediated the relationship between race and intentions to assist the police. Sobel's test indicated that, although race significantly predicted quality of contact and quality of contact was significantly related to intentions to provide witness statements and give evidence in court, quality of contact was not a significant mediator of the relationship between race and intentions to assist the police after the effects of attitudes and subjective norms were accounted for (intention to provide witness statements, $Z = 1.03$, *ns*; intention to give evidence in court, $Z = 0.50$, *ns*).

We then conducted further regression analyses to examine whether the relationship between quality of contact and intentions to help the police was mediated by attitudes and subjective norms. Separate analyses were conducted for intentions to provide a witness statement and intentions to give evidence in court. As already indicated in Table 2, the initial conditions for mediation are met (i.e. significant relationship between the IV, DVs, and mediators). Attitudes and subjective norms were therefore entered along with contact as simultaneous predictors of intentions to cooperate with the police in the final step of the mediation analyses. The relationship between quality of contact and intentions to provide a witness statement was reduced to $\beta = 0.08$, *ns*. These results suggest that the effect of contact on intentions to provide a witness statement was mediated by attitudes and subjective norms conjunctively. This conclusion is supported by Sobel's tests for the significance of the indirect paths; for the indirect path via attitudes, $Z = 4.71$, $p < .001$ and for the indirect path via subjective norms $Z = 2.37$, $p < .01$.

Our analyses also indicated that the relationship between quality of contact and intentions to provide evidence in court was reduced to $\beta = 0.05$, *ns*, after attitudes and subjective norms were taken into account. However, the results indicated that attitudes were the only significant mediator. When attitudes, subjective norms, and quality of contact were entered in the final stage of the mediation analyses, both subjective norms and quality of contact failed to significantly predict intentions to give evidence in court. Sobel tests for the indirect path via attitudes indicated significant mediation, $Z = 4.51$, $p < .001$, whereas for the indirect path via subjective norms, significant mediation was not observed, $Z = 1.73$, *ns*.

Confirmatory analyses

Finally, we tested how well our theoretical model fit the dataset by structural equation modelling using SAS. We compare a fully mediated model to a partially mediated one. In the fully mediated model, the effects of race on attitudes and subjective norms are fully mediated by quality of contact. In turn, the effects of quality of contact on intentions to provide a witness statement and intentions to give evidence in court are fully mediated by attitudes and subjective norms. Separate confirmatory analyses were run for intentions to provide a witness statement and intentions to give evidence in court.

Statistical support was not found for this model for intentions to provide a witness statement. Chi-squared was significant, indicating that the dataset differs from the

hypothesized model ($\chi^2 = 22.48, df = 4, p < .0001$). Moreover, the fit indices were not satisfactory. Specifically, the goodness-of-fit index (GFI) = .93, Bender's comparative fit index (CFI) = 0.93, Bentler and Bonnet's NFI = 0.92, Bollen's NNFI = 0.93, and RMSEA = 0.20. The goodness of fit indices for the fully mediated model predicting intentions to give evidence in court were also generally weak ($\chi^2 = 21.04, df = 4, p < .001$; GFI = 0.94; CFI = 0.93; NFI = 0.92; NNFI = 0.93 RMSEA = 0.19). The Lagrange Multiplier and the Wald tests for both our confirmatory analyses suggested two paths that would increase the fit of the model significantly. These were a direct path between race and attitudes and race and subjective norms in addition to the mediated path through quality of contact. These findings are not surprising given that our mediation analysis indicated that the relationship between race and attitudes or subjective norms was only partially mediated by quality of contact (see above). In contrast, attitudes and subjective norms together fully mediated the relationship between quality of contact and intentions to provide a witness statement or provide evidence in court.

We therefore ran confirmatory analyses to test the partially mediated model. In this model, the effects of race on attitudes and subjective norms are partially mediated by quality of contact. In turn, the effects of quality of contact on intentions to provide a witness statement and intentions to give evidence in court are fully mediated by attitudes and subjective norms (see Figures 1 and 2). Separate analyses were performed for intentions to provide a witness statement and intentions to give evidence in court. For intentions to provide a witness statement, the analysis indicated that the data were a good fit for our model. Chi-squared was small and non-significant, $\chi^2 = 4.02, df = 4$, indicating that the dataset does not significantly differ from the hypothesized model. Moreover, the fit indices were satisfactory. Specifically, GFI = 0.99; CFI = 0.99; NFI = 0.99; NNFI = 0.99; and RMSEA = 0.09. Finally, the Lagrange Multiplier and Wald Tests did not suggest any modifications that would significantly improve our model. The goodness-of-fit values for intentions to give evidence in court were also good, $\chi^2 = 2.58, df = 4, ns$; GFI = 0.99; CFI = 0.99; NFI = 0.99; NNFI = 0.99, RMSEA = 0.05.

These results confirm our hypothesis that the reluctance of Black people to cooperate within a police investigation appears to be mediated by the conjunctive influence of quality of contact, attitudes towards the police, and perceived subjective norm concerning cooperating with the police. Race differences in attitudes and

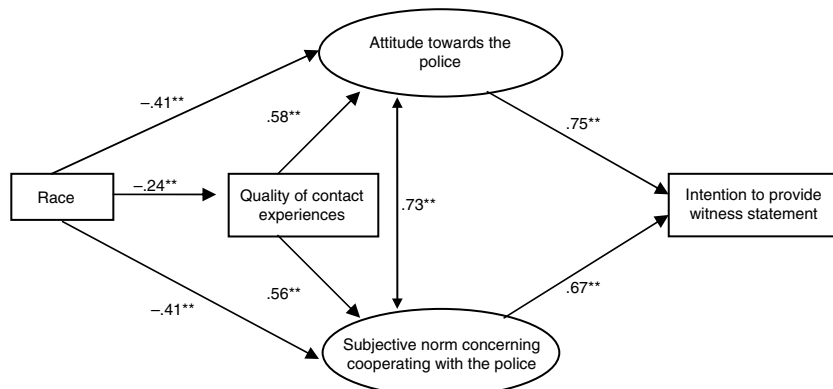


Figure 1. Model for the relationship between race, quality of contact, attitudes, subjective norms and intentions to provide a witness statement.

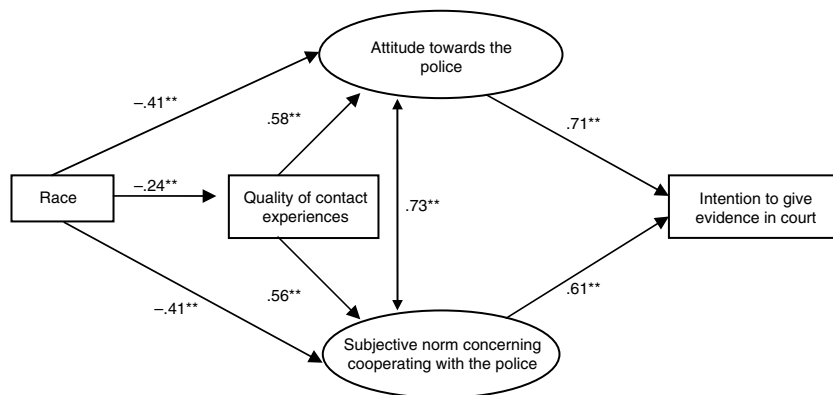


Figure 2. Model for the relationship between race, quality of contact, attitudes, subjective norms and intentions to give evidence in court.

subjective norms are partially accounted for by quality of contact with the police, while the effects of quality of contact on intentions to cooperate with investigations are mediated by attitudes and subjective norms.

Discussion

In the current research, we integrated two important lines of research that had hitherto been considered separately. These are the contact hypothesis and the TPB. We considered the role of quantity and quality of contact, attitudes, subjective norms and perceived behavioural control with respect to race differences in people's willingness to cooperate with the police. We proposed that quality of contact would mediate the relationship between race and attitudes, subjective norms, and perceived behavioural control. We also predicted that attitudes, subjective norms, and perceived behavioural control would mediate the relationship between quality of contact and willingness to cooperate with the police.

The results of our study are mostly in line with our predictions. We found race differences in intentions to cooperate with the police. Blacks were more reluctant than Whites to cooperate with the police in terms of providing witness statements and giving evidence in court. However, no race differences were found regarding intentions to report an incident to the police. These results are in line with previous findings. Jefferson and Walker (1993) also reported negligible race differences with regards to reporting a serious accident to the police.

The current study also provided some evidence as to the psychological mechanisms that may account for Black people's reluctance to cooperate with the police. Our findings suggest that quality of contact with the police partially accounts for race differences in attitudes and subjective norms concerning helping with criminal justice investigations. Compared with Whites, Blacks reported more negative quality contact with police. Blacks also reported more negative attitudes towards the police, accompanied by a perceived subjective norm that does not support cooperating with the police. Our study further showed that the relationship between quality of contact and intentions to cooperate with police was mediated by attitudes and subjective norms. These findings, and the results of the confirmatory analyses, strongly suggest that negative contact with police leads to negative attitudes and subjective norms towards

cooperating with criminal justice investigations; this, in turn, leads to less willingness to provide witness statements or give evidence in court.

Our research has important theoretical implications concerning the contact hypothesis (Allport, 1954; Pettigrew, 1998). First, our study shows that quality of contact can be useful in predicting not just attitudes or prejudice, but also *intentions to behave* in a particular manner towards out-groups. Second, our research indicates that good quality contact can have positive effects on intergroup relations, even in situations where all the conditions outlined by Allport (1954) and Pettigrew (1998) are not met. These findings are consistent with the results of the meta-analysis performed by Pettigrew and Tropp (2005). Third, our research suggests that quality, rather than quantity, of contact strongly affects the nature of future intergroup relations. Hence, the mere amount of contact may not be useful in improving intergroup relations. Such contact also has to be positive in nature. Finally, our study identified the possible psychological mechanisms through which contact may influence behavioural intentions.

Components of the TPB (i.e. attitudes and subjective norms) were identified as possible mediators of the relationship between quality of contact and behavioural intentions. First, our research findings demonstrated that the components of TPB are influenced by quality of previous contact. This extends on previous TPB research by demonstrating that quality of previous contact with the attitude object can influence attitudes, subjective norms, perceived behavioural control, and intentions. Second, our research extended on previous TPB research by demonstrating the predictive value of TPB in another behavioural domain (i.e. intentions to cooperate with the police). As in previous research, the combined effect of the three TPB components accounted for a significant amount of variance in people's intentions to report incidents to the police, provide witness statements, and give evidence in court. Finally, our study showed that attitudes and subjective norms fully mediate the effects of quality of contact on people's intentions to provide witness statements and give evidence in court. As such, our study extends previous research by demonstrating the predictive power of combining the contact hypothesis and the TPB.

Interestingly, no race differences were obtained for perceived behavioural control. Therefore, perceived behavioural control could not be considered as a potential mediator in further analyses. These findings seem to suggest that, in the behavioural domain that is currently under consideration, perceived behavioural control is not an important determinant of behavioural intentions. People of both races seem to feel that they have some control over whether or not they will cooperate with police. This may be viewed as one of the benefits of living in a society where the police do not have significant powers of coercion.

Our findings also suggest that Blacks and Whites are equally willing to report an incident to the police. We speculate that this may be because merely reporting an incident does not necessarily involve continued interactions with the police in their investigations. If Black people hold more negative attitudes towards helping the police than Whites do, then Black people may be far less probable to want to be deeply involved in police investigations than Whites. Since merely reporting an incident may represent low levels of involvement, Black people may just be as willing as White people to report an incident to the police. In contrast, providing witness statements and giving evidence in court may require levels of involvement with the police that Black people may not be willing to have. Future research is needed to further investigate our speculations more directly.

It is also important to note that, despite the results of the SEM, the current research found that attitudes appear to be the strongest and most consistent mediator. Attitudes accounted for the effects of quality of contact on both intentions to provide a witness statements and intentions to give evidence in court in the mediation analyses. In contrast, mediation analyses showed that subjective norms only significantly mediated the relationship between quality of contact and intentions to give witness statements; but even in this case attitudes were still the stronger predictor. These findings are line with the results of Armitage and Conner's (2001) meta-analysis. They also noted that subjective norms were not as strongly related to intentions as attitudes were. With regards to our research, it is possible that direct contact with police influences attitudes more than it does perceived subjective norms because the individual themselves would have had experiences with members of the group. It appears to be more plausible that subjective norms may be more strongly influenced by the reported experience of others.

In studies investigating the 'extended contact hypothesis', Wright, Aron, McLaughlin-Volpe, and Ropp (1997) found that knowledge of an in-group member having a close relationship with an out-group member can lead to more positive intergroup attitudes. Hence, it is possible that knowledge of a positive contact experience of an in-group member with police can influence attitudes and subjective norms concerning cooperating with criminal justice investigations. We would expect that the effect of extended contact on intentions to help would be more strongly mediated by subjective norms than attitudes. In contrast, the effects of direct contact would be more strongly mediated by attitudes (as in the current study). Further research is needed to explore this hypothesis.

There are other limitations to the current research that future research may seek to address. The current study utilized a sample of students from the south of England. Further research using non-student samples from various places within the UK (or the world) is needed. It is possible that students, due to their life-style, have different experiences with police and, therefore, different attitudes towards the police than non-students. For example, students may be less likely to have contact with the police in comparison to non-students. As such, students are less likely to show much variability in the quality of their contact experiences in comparison to non-students. Thus, our results are likely to be stronger within a sample of non-students.

Further research is also needed to explore the possibility that people from various regions and different socio-economic and educational backgrounds within a country may have different levels and quality of contact with police. Future researchers may also want to focus on other ethnic minority groups and their attitudes towards cooperating with the police. In recent times, there has been a reported increase in the use of 'stop and search' among Asians in the UK (BBC News, 2004). An increase of such types of contact with police may have resulted in more negative attitudes towards the police and less willingness to cooperate with criminal justice investigations within the Asian community. Finally, another limitation of the current study is that we used a cross-sectional design. Although our confirmatory analyses supported our proposed causal pathways, it is important for future researchers to use experimental or longitudinal designs in order to determine causality.

Despite the above limitations, the current research demonstrates the applicability of the contact hypothesis and TPB to the problem of race differences in willingness to cooperate with police investigations. Improving the quality of contact experiences between the police and the Black community appears to be of utmost importance. Changes to the quality of contact are probably best achieved during public-initiated

contact with the police (e.g. sport events or visits to police stations). Ensuring that all members of the public receive a good quality of service may also increase public confidence in the institution. Police-initiated contact with the Black community presents more difficulties. However, this may still be feasible. By improving police training to include the understanding of other cultures and subcultures, police officers may be educated in terms of the Black community's customs and way of life, and learn to perform interactions without creating hostilities. Understanding the Black community could generate positive police-initiated contact experiences, such as community events, and youth training experiences.

It may remain necessary for police to employ 'stop and search' powers. Damage generated by this experience may be limited by detailed, documented justifications for the stop. A recent review of 'stop and search' practices has focused upon presenting a copy of the record of a stop to the individual involved (The Home Office, 2004). The provision of a clear and concise explanation for police behaviour may lead the Black (or Asian) community to feel less targeted by the police. It is also necessary to ensure that the police are not directly targeting individuals from any specific background, and are not using their powers inappropriately. The police are currently developing a 'supervisors toolkit' for monitoring 'stop and search' procedures (The Home Office, 2004). Such changes may result in improved relations between minority communities and the police, which may lead to Blacks and Asians being more willing to cooperate with police investigations.

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