Policing and Society: An International Journal of Research and Policy

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Published online: 04 Jun 2013.

To cite this article: Kristina Murphy (2013): Does procedural justice matter to youth? Comparing adults' and youths' willingness to collaborate with police, Policing and Society: An International Journal of Research and Policy, DOI: 10.1080/10439463.2013.802786

To link to this article: http://dx.doi.org/10.1080/10439463.2013.802786
Does procedural justice matter to youth? Comparing adults’ and youths’ willingness to collaborate with police

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(Received 23 July 2012; final version received 24 March 2013)

Public cooperation with police is essential for the effective management of crime and disorder. Understanding factors that shape young people’s willingness to cooperate and collaborate with the police is important because young people are more likely than adults to come into contact with police. Research with adults suggests that police use of procedural justice is important for encouraging adults’ cooperation with police. This study examines the importance of procedural justice for fostering youth collaboration with police. Using survey data collected from 513 adolescents and 2611 adults, results indicate that procedural justice is in fact more important to youth than it is to adults. A theoretical explanation is offered for why this may be the case and the implications for determining how the police can foster better relationships with young people will be discussed.

Keywords: procedural justice; youth; police legitimacy; cooperation

Introduction

Police have an important role in society; they serve and protect the community, and they work hard to prevent crime. It is a function of the police to control the behaviour of the public, and to have them follow the norms, rules and laws of society (Sunshine and Tyler 2003). Police agencies also rely on citizens to help them control crime in local communities. This includes asking citizens to report instances of victimisation and crime, assist in identifying criminals and report suspicious activities that occur in their neighbourhoods. As such it is important to understand the views the community have towards the police, how they respond to orders by police, what motivates them to cooperate with police and what motivates them to participate in collaborative crime control efforts.

Public police agencies in Australia and abroad have faced significant challenges in generating voluntary cooperation from youth and have found it particularly difficult to engage youth in collaborative crime control efforts. This has been complicated by the fact that young people tend to hold less favourable assessments of the police and police conduct when compared to adults (Leiber et al. 1998, Hurst and Frank 2000, Fagan and Tyler 2005, Piquero et al. 2005). Using survey data collected from an Australian sample of 513 youth and 2611 adults, this study examines whether procedural justice policing can promote young people’s respect for police authority, and more importantly, whether it can ultimately affect their willingness to cooperate.
with police efforts to control crime and disorder. Of particular interest will be whether procedural justice policing has a stronger effect for youth than for adults.

Policing youth

Relationships between police and youth have been characterised by conflict and low levels of trust in many western countries (e.g. Leiber et al. 1998, Piquero et al. 2005). Australian crime statistics, for example, reveal that young people are the most likely population group to have contact with the police, and persons aged 15–19 years are the most prominent group to have contact with police for the commission of a crime. When compared to their older counterparts, young people are more likely to be victims of crime. They are also more likely to attract police attention, in part because of their high level of involvement in activities considered illegal for their age group (Australian Institute of Criminology 2008). Examples include alcohol consumption, truancy from school and driving cars unlicensed. Given young people are also more likely to congregate in public areas they are often considered a public nuisance, and therefore attract unwanted police attention (Barclay et al. 2007). Hence, the wider societal culture that deems that young people are a threat tends to provide justification for police to attend to youth in order to avoid potential trouble. Removing youth from visible street locations, often when they are not involved in any illegal or deviant behaviour can result in negative opinion towards police. The extra police attention for not doing anything wrong creates a sense that youth are being treated as trouble-makers. This promotes tense and hostile police–youth encounters, and leads many youth to have a pessimistic view of police enacting their authority unfairly (Carr et al. 2007, Norman 2009). The challenge for police agencies is to identify strategies that will be effective in fostering youth–police relationships.

The importance of procedural justice for fostering cooperation

Recent criminological research has focussed on the importance of procedural justice in shaping adults’ cooperation with police. Procedural justice concerns the perceived fairness of the procedures involved in decision-making and the perceived treatment one receives from the decision-maker. Procedural justice research has consistently found that adults are much more likely to defer to police and are much more likely to cooperate with police when they feel they will be treated in a fair, respectful and impartial manner (Sunshine and Tyler 2003, Murphy et al. 2008). In fact, research has consistently found that procedural justice tends to matter more to people when deciding to cooperate with police than other issues such as police effectiveness in tackling crime (e.g. Tyler and Huo 2002).

Procedural justice is thought to be so effective in shaping voluntary cooperation because it increases the perceived legitimacy of an authority (Tyler 1990). In the procedural justice literature, legitimacy has traditionally been defined as comprising two components: (1) a judgment people make about the status of an organisation as an authority that has the right to command others and be obeyed and (2) the level of confidence and trust people have in the authority (Tyler 1990, Sunshine and Tyler 2003, Reisig et al. 2007). The vast majority of empirical studies linking procedural justice to judgments of legitimacy have utilised this definition of legitimacy (although this definition has recently been questioned; see Kaina 2008, Bottoms and Tankebe
2012, Tankebe 2013). Where authorities are judged to be legitimate, people feel that they ought to defer to their decisions and rules, cooperate with them and follow them voluntarily out of obligation rather than out of fear of punishment or anticipation of reward. Research with adults consistently reveals that perceptions of police legitimacy mediate the effect of procedural justice on compliance and cooperative behaviours (Tyler and Huo 2002, Sunshine and Tyler 2003).

Smith (2007) argues that, while informative, the procedural justice literature to date tends to be limited in scope because it largely relies on adult samples from the USA. While procedural justice is proven to be effective in improving views of police legitimacy and cooperation with police in adults, little is known about how procedural justice affects youth perceptions of police or their willingness to cooperate with police. Only five studies have been published that examine procedural justice in relation to youth. The findings from these five studies suggest that youth cooperation with police may benefit from police using procedural justice when dealing with young people, but the results thus far remain equivocal.

For example, in a study of juvenile offenders aged between 14 and 18, Piquero et al. (2005) reported that procedural justice perceptions of police were positively associated with their perceptions of police legitimacy. The subsequent effect that these views had on delinquents’ cooperation or compliance behaviour was not examined, however. Fagan and Tyler (2005) showed that the perceived legitimacy of the police shaped self-reported compliance with the law in adolescents. Like Piquero et al.’s study, they also found that if adolescents thought the police were using procedural justice, they had greater perceptions of police legitimacy. However, while Fagan and Tyler’s study examined the impact of police legitimacy on self-reported delinquency, they did not examine whether procedural justice itself had an impact on delinquency. Nor did they examine whether perceptions of police legitimacy or fair treatment of youths by police impacted on their willingness to cooperate with police or become engaged in collaborative crime control efforts.

Using survey data from 328 Australian high school students, Hinds (2007) concluded that young people’s views of police legitimacy were positively linked to police use of procedural justice. In a later study, Hinds (2009) also presented a model that suggested that perceptions of police legitimacy mediated the effect of procedural justice on teenagers’ self-reported willingness to cooperate with police. However, given Hinds (2009) did not present data showing that procedural justice had a direct relationship with young people’s willingness to cooperate with police, it was unclear whether police legitimacy did in fact mediate this effect. Further, Hinds (2009) did not report whether her measures could be conceptually distinguished from each other. Given the particularly strong relationship between her ‘police legitimacy’ and ‘willingness to cooperate with police’ measures ($\beta = 0.61$), it is possible that there was a strong degree of conceptual overlap between her measures, calling into question the validity and reliability of her conclusions.

Finally, Reisig and Lloyd (2008) collected survey data from 289 Jamaican high school students. They found that students who rated police more favourably on procedural justice measures were more likely to view police as legitimate. Students who thought the police used procedural justice were also more likely to report a greater willingness to cooperate with police. Surprisingly, however, perceptions of police legitimacy did not predict self-reported cooperative behaviour with police. Hence, police legitimacy did not mediate the effect of procedural justice on youth’s
self-reported cooperative behaviours as has been shown regularly in the adult literature (for similar research conducted with young adults see Gau 2011 and Reisig et al. 2012; in Reisig et al.’s (2012) study, legitimacy explained willingness to support police with information about some crimes but not others).

While clearly informative and interesting, the previous five youth studies discussed above have their limitations. Only one of the studies has suggested that perceptions of police legitimacy can mediate the effect of procedural justice on young people’s willingness to cooperate with police. In fact, only two of the five studies even attempted to examine the mediating influence of police legitimacy on youth cooperation with police. Hinds (2009) suggested that it did, while Reisig and Lloyd (2008) failed to find an effect. Given the issues present in the Hinds’ (2009) study, it still remains unclear as to whether the standard finding in the adult literature – that procedural justice impacts willingness to cooperate with police through the mediating influence of police legitimacy – can be replicated in a youth sample. While not a limitation per se, it should also be noted that Hinds (2009) only reported whether young people would be willing to cooperate with police if asked, and this was assessed via a 1-item self-report measure. She did not ascertain whether young people would also be willing to voluntarily assist police in reporting crime when it was not requested to them.

More importantly, none of the youth studies to date have proffered a theoretical explanation for why procedural justice may shape perceptions of police legitimacy among young people or their willingness to cooperate with authorities. In addition, none have indicated whether procedural justice might matter more or less to youth when compared to adults. It is not enough to simply demonstrate that procedural justice shapes youth perceptions of police legitimacy, which then shapes their willingness to cooperate with police. This finding has been demonstrated widely in the literature with different population groups and across different contexts. So why would we expect it to be any different in a youth sample? What is required from the literature is a test of whether procedural justice matters more or less to youth than adults and a theoretical explanation for why this might be the case.

**The present study**

This study has three aims. The first is to show in a youth sample the standard finding from the adult literature that perceptions of police legitimacy can mediate the effect of procedural justice on one’s willingness to voluntarily cooperate with police. The second aim is to replicate the standard finding from the adult literature that procedural justice matters more to youth than police effectiveness when predicting perceptions of legitimacy and willingness to cooperate with police. Surprisingly, Hinds (2007, 2009) was the only author of the five mentioned above to include a measure of police effectiveness in her studies, despite the fact that the majority of studies with adults include this measure. Hinds found that procedural justice mattered more than effectiveness when predicting perceptions of police legitimacy. She did not report, however, whether procedural justice remained the more important predictor of cooperation. Given the centrality of this variable in much of the adult literature, this study also seeks to establish whether police effectiveness is important to youth. The third aim of this study – and perhaps the more important one – is to test empirically whether procedural justice matters more or less to youth
than it does to adults. The study will also proffer a theoretical explanation for how and why it may differ. The equivocal results obtained in the youth studies presented earlier raises the possibility that there may be a difference in how adults and youth respond to procedural justice.

In making predictions about how youth may respond to procedural justice, we can first turn to existing procedural justice research with adults. Theories from social psychology have been used to explain why procedural justice is effective in shaping adult’s views of police legitimacy and their willingness to cooperate and comply with the law. Specifically, Lind and Tyler’s (1988) group value model maintains that people derive a sense of self-worth from group membership and that individuals assess their status within groups by evaluating the extent to which important group representatives (such as authorities) treat them fairly. The interpersonal treatment people receive from an authority is a particularly important source of identity conferring information about how much people are valued as members of a group and provides information about their standing within that group. Fair procedures communicate respect and value, whereas unfair procedures communicate disrespect and marginality. The model therefore suggests that if members of the public perceive police as treating them unfairly, this signifies that police do not consider them to be important or valued members of the community and as such it can pose a threat to their sense of self as an important member of society. This follows that those who feel unfairly treated by the police will be unlikely to want to assist or cooperate with police.

In a series of experimental studies with adults, DeCremer and Sedikides (2005) demonstrated that self-uncertainty plays a particularly important role in responses to variations in procedural justice. DeCremer and Sedikides (2005, p. 159) argued that when self-uncertainty is high (i.e. greater doubts about one’s identity and inclusiveness in a group), people should be particularly sensitive and responsive to procedural justice variations. DeCremer and Sedikides’ study is relevant to make predictions about how youth may respond to procedural justice. It is well documented that vast changes in one’s sense of self (i.e. identity formation) occur from childhood through to young adulthood. For example, in a cross-sectional study of males between the ages of 12 and 24, Meilman (1979) found that young adolescents often start out with ill-defined identities but gradually shift towards an identity-achieved status between 18 and 21 years of age. Archer (1982) replicated this trend for both males and females (see also Adams and Fitch 1982, Waterman 1982). Young adulthood therefore seems to be an especially important time for identity achievement, suggesting that youth before this age will be less likely to be certain about their identity. If the results of DeCremer and Sedikides (2005) study are considered, then this would suggest that youth should be more sensitive to procedural justice concerns than adults.

But why might this be the case? It has long been recognised that desire for independence and individuality are characteristic of adolescence (Grandpre et al. 2003). Seeking independence from parents and authority is important for identity formation and to developing an adolescents’ sense of self. A threat to independence is therefore likely to be particularly salient during adolescence due to the presence of an under-developed and uncertain identity. Research has in fact demonstrated that adolescents are more likely than adults to perceive their individual efforts as being hampered by external control forces (Botvin and Eng 1980). Messages from authorities that restrict adolescent freedom are more likely to conflict with young people’s needs for independence and are likely to compound their perceptions of
external control. DeCremer and Sedikides (2005) suggest that procedural *injustice* can be perceived as threatening to a fragile self-aspect. Further, Reisig and Correia (1997) suggest that young people are more likely than adults to perceive police as attempting to restrict their independence. Research by Sullivan *et al.* (1987) also shows that when compared to adults, youth are more sensitive to certain aspects of police demeanour such as signs of rudeness and lack of respect. It is therefore suggested here that a procedural justice policing approach should be more effective for youth than for adults because: (1) it is less threatening to a young person who is more likely to value independence and (2) it addresses their level of self-uncertainty by affirming their identity and value within society.

Given the possibility that procedural justice may affect the views and behaviours of youth differently to adults, it is important to extend previous research in the area by assessing the effect that procedural justice has on both youth and adults in the same study. This will be the first time such a comparison has been made in the literature. Three hypotheses will be tested:

H1: Procedural justice will influence young people’s willingness to cooperate with police through the mediating influence of police legitimacy;

H2: Procedural justice will be a stronger predictor than police effectiveness of young people’s perceptions of police legitimacy and willingness to cooperate; and

H3: Procedural justice will carry more weight for youth than for adults when predicting their willingness to cooperate with police.

**Method**

**Participants and procedure**

**Youth sample**

Two co-educational public high schools (Grades 7–10) in a medium-sized city in Australia were selected and invited to participate in a project interested in youth perceptions of crime and policing. The jurisdiction in which the study was undertaken has lower than national average levels of violent crime, higher levels of property crime, and consists of a predominantly middle-class population. Each of the two schools selected comprised a racially diverse student population, with students drawn from over 58 suburbs.

In order to obtain volunteers for the study, information was sent home to all parents inviting their children to complete a survey of their views of police and crime in their community. Students were required to have obtained parental consent before participating. Surveys were completed during class time. A total of 513 adolescents aged 12–17 ($M = 15.2; SD = 0.74$) participated; 51% were males, and 76% described their ancestry to be Australian. Of the 513 participants, 329 respondents came from School 1, and 184 respondents came from School 2. The overall response rate for School 1 was 53%, whereas for School 2 it was 31%.

Overall representativeness of the sample was assessed using the Australian Government’s Index of Community Socio-Educational Advantage (ICSEA). The ICSEA index is a measure enabling comparisons to be made across Australian schools. Variables making up the ICSEA index include the socio-economic characteristics where students live (e.g. income, employment status, occupation, English-speaking status, single parent families, etc.), whether the school is regional or
remote, and the proportion of Indigenous students making up the school population. The average ICSEA score for all schools in Australia is 1000, with most Australian schools scoring between 900 and 1100 (see Australian Curriculum, Assessment and Reporting Authority 2009). Schools 1 and 2 had an ICSEA score of 1091 and 1056, respectively. Hence, the resulting sample was considered to be broadly representative of the community at large, although when compared to overall Australian figures, slightly over-represented students from a higher socio-economic background.

**Adult sample**

In the same year that the school-based study was undertaken, survey data were also collected from a sample of adults living in the same city. A 26-page survey was posted to 5800 residents over the age of 18 who had been selected at random from the Australian electoral roll. The survey canvassed residents about their levels of satisfaction with existing police services and their views about crime and safety in their neighbourhood. A total of 2611 useable surveys were returned and analysed.

Respondents in the adult sample were between 16 and 94 years of age ($M = 48.54, \text{SD} = 16.17$), 44% were males, and 61% had lived in the jurisdiction for more than 15 years. Two respondents were younger than 18 years of age, suggesting these two respondents completed and returned a survey that was not addressed to them personally. These cases were deleted from further analysis. Seventy per cent of respondents were married, and 43% had attained a University degree. Using Australian Census data, the sample was found to be broadly representative of the overall population living in that jurisdiction (e.g. gender, income, education level, number of people living in household). However, like many mail surveys, older people were slightly over-represented.

**Questionnaire and scale construction**

The wording of items used in this study is presented in the Appendix 1. Scales were developed by summing an individual's scores on each item in a scale and dividing it by the number of items used to construct the scale. It should be noted that the youth and adult surveys were not originally designed to allow direct comparison to each other. Hence, the wording for some of the youth items differed slightly from the adult survey questions.

**Police legitimacy**

Police legitimacy has traditionally been measured through two concepts: (1) people's trust and confidence in police and (2) their belief that authorities are entitled to be obeyed (Tyler 1990). Recent advances have occurred in the procedural justice literature, whereby theorising of the police legitimacy concept has called into question a definition of legitimacy based purely on confidence and obligation (see Kaina 2008, Bottoms and Tankebe 2012, Jackson et al. 2012a, Tankebe 2013). These scholars have proposed alternative concepts to measure legitimacy. This recent work is clearly important and warrants further testing using survey data collected from different population groups and in different countries. Unfortunately, however, the survey data upon which this paper is based was collected prior to these recent
publications. The items used to measure police legitimacy in this study are therefore based on the original conceptualisation of legitimacy. In other words, the four questions used to assess police legitimacy in this study assessed feelings of confidence in the police, as well as obligation to obey the police. The items were each measured on a five-point Likert scale (e.g. ‘I have confidence in the police’; ‘Everyone should follow the directions of police officers’; $1 = $ strongly disagree to $5 = $ strongly agree); higher scores on this scale reflect higher levels of perceived legitimacy (Cronbach’s $x$: youth $= 0.74$; adults $= 0.75$). All of the prior youth studies and the majority of prior adult studies have also utilised this measure of police legitimacy. While acknowledging the limitation of this measure, it is important for a study that aims to directly compare an adult and youth sample for the first time to do so using measures that have been utilised widely in the literature. This allows the findings of this paper to be directly compared to previously published adult studies in the field. It would be of value to examine the validity of the ‘new’ legitimacy concept in youth and adult comparative studies in the future.

**Procedural justice**

In the procedural justice literature, procedural justice is typically conceived as a two-dimensional concept consisting of: (1) the quality of treatment people receive from authorities and (2) the quality of decision-making people receive from authorities (Reisig et al. 2007). While the youth and adult surveys contained a number of different procedural justice related questions, given the purpose of this study was to compare responses to procedural justice across both adults and youth using the same survey items, I was restricted to only using three survey questions that were similarly worded across the two population groups. While not ideal, only quality of treatment could be assessed in this study (see Appendix 1). The items used to construct the procedural justice scale were measured using a five-point Likert scale (e.g. ‘It depends on what mood a police officer is in whether they tell you off’; $1 = $ strongly disagree to $5 = $ strongly agree), with a higher score indicating greater perceptions of fair treatment (Cronbach’s $x$: youth $= 0.61$; adults $= 0.63$).

**Police effectiveness**

Research with adults has consistently revealed that procedural justice matters more to people than police effectiveness when predicting willingness to cooperate with police. It is therefore important to establish whether this finding can be replicated in a youth sample. Police effectiveness was assessed via three items by asking respondents to rate how well police do their job in relation to various issues (e.g. ‘preventing crime’; $1 = $ poor job to $5 = $ very good job). A higher score reflects the view that police are effective (Cronbach’s $x$: youth $= 0.71$; adults $= 0.84$). Again, the exact wording of the items differed slightly between the adult and youth surveys. For the adult survey, items could be argued to reflect what has in the UK been termed ‘community engagement’ (e.g. ‘how well do police do in working with residents to solve local problems’; see Jackson et al. 2012b), while the items in the youth survey could be argued to reflect more traditional instrumental evaluations of police effectiveness (e.g. ‘how well do police do dealing with children who break the law’). These differences again should be considered when interpreting the findings.
Crime reporting

A set of questions measured respondents’ willingness to voluntarily engage with police by reporting crime. A series of five different incidents were presented, and respondents were asked to indicate with a ‘yes’ or ‘no’ answer whether they would report the incident to police (e.g. ‘if a gang of youths was beating someone up’). The number of ‘yes’ responses was summed and formed an index called ‘crime reporting’; higher scores indicate that the participant would report more crimes to police.

Control variables

Finally, three demographic control variables were also included in the analysis. These were the respondents’ sex (0 = female, 1 = male), ancestry (0 = Australian, 1 = not Australian) and age (measured on a continuous variable). An additional control variable assessing ‘contact’ with police (0 = no contact and 1 = contact) was also included as research has shown that those who have more personal contact with police tend to hold more negative views of police than those who have had fewer contacts with police (Scaglion and Condon 1980). It was found that 73% of youth had a personal encounter with police; this contrasted with 29% for adults. Additional control variables not included in the analysis may very well prove to be important predictors of youth’s perceptions of police legitimacy and willingness to cooperate. However, given additional control variables were not measured in the survey, the results can only be interpreted using those variables available.

Confirmatory factor analyses

In order to address the issue of convergent and discriminant validity of the key concepts being measured in this study, confirmatory factor analysis (CFA) – a structural equation modelling technique – was used for both the youth and adult sample data, respectively. Variables used to construct the procedural justice, police legitimacy and police effectiveness concepts were subjected to this analysis. AMOS version 17 was used to build the factor structures presented in Figures 1 and 2. Figure 1 presents the results of the youth data. Figure 2 presents the results of the adult data. As can be seen in Figure 1, the measurement model and fit statistics indicate that the scales have adequate reliability and the structure of the measurement model has validity. This conclusion is strengthened by the fact that the standardised factor loadings were all statistically significant at the $p < 0.001$ level. The measurement model and fit statistics for the adult data (Figure 2) also suggest that the proposed scale construction has convergent and discriminant validity, with all standardised factor loadings again being statistically significant at the $p < 0.001$ level. The constructed scales can therefore be confidently utilised to address the three aims of the study.

Results

Descriptive statistics

Table 1 presents the means and standard deviations for the measures for both youth and adults, respectively. Table 1 shows that youth differed significantly from adults...
on all measures. Independent samples *t*-tests revealed that when compared to adults, young people were significantly less likely to view police as legitimate, they were less likely to feel police use procedural justice when dealing with people and they were significantly less likely to indicate they would voluntarily report crime to police. Interestingly, youth were significantly more likely than adults to believe police effectively do their jobs (all *t*-tests were significant at the *p* < 0.001 level). Table 1 also details the bi-variate relationships between the measures for each separate age group. The bi-variate correlations reveal that for both age groups, procedural justice was positively related to views about police legitimacy and willingness to report crime. Greater perceptions of police legitimacy were also related to a greater willingness to report crime to police in both age groups. Of particular note is the relatively strong bi-variate relationship in the youth sample between crime reporting and perceptions of police legitimacy (*r* = 0.41) versus a relatively weak relationship in the adult sample (*r* = 0.19).

**Regression analyses**

**Youth findings**

The first aim of this study is to replicate in a youth sample the standard finding in the adult literature that perceptions of police legitimacy can mediate the effect of procedural justice on self-reported cooperative behaviour. The second aim is to...
examine whether procedural justice matters more than police effectiveness when predicting youths’ perceptions of police legitimacy and their willingness to cooperate with police. In order to address these two aims, two regression analyses were conducted. The first used control variables at Step 1, and perceptions of police

Table 1. Means, standard deviations and bi-variate correlations for all measures for the youth and adult samples separately.

<table>
<thead>
<tr>
<th>Measure</th>
<th>No. of items</th>
<th>Youth M (SD)</th>
<th>Adults M (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>1</td>
<td>15.18 (0.74)</td>
<td>48.54 (16.17)</td>
<td>-0.03</td>
<td>0.06</td>
<td>0.03</td>
<td>-0.02</td>
<td></td>
</tr>
<tr>
<td>2. Legitimacy</td>
<td>4</td>
<td>3.13 (0.75)</td>
<td>3.54 (0.63)**</td>
<td>0.18**</td>
<td>0.35**</td>
<td>0.31**</td>
<td>0.41**</td>
<td></td>
</tr>
<tr>
<td>3. Effectiveness</td>
<td>3</td>
<td>3.22 (0.93)</td>
<td>3.00 (0.69)**</td>
<td>0.08**</td>
<td>0.44**</td>
<td>0.15**</td>
<td>0.20**</td>
<td></td>
</tr>
<tr>
<td>4. Procedural justice</td>
<td>3</td>
<td>2.59 (0.72)</td>
<td>3.24 (0.66)**</td>
<td>0.06*</td>
<td>0.43**</td>
<td>0.30**</td>
<td>0.14*</td>
<td></td>
</tr>
<tr>
<td>5. Crime reporting</td>
<td>5</td>
<td>1.85 (1.60)</td>
<td>4.80 (0.60)**</td>
<td>0.15**</td>
<td>0.19**</td>
<td>0.06*</td>
<td>0.13**</td>
<td></td>
</tr>
</tbody>
</table>

Note: All scales measured on a 1 to 5 scale. The crime-reporting index was measured on a ‘yes’/‘no’ index, with the number of ‘yes’ responses given to five items summed. Higher scores on scales indicate more positive evaluations/greater willingness to report. Correlations for the youth group are presented above the diagonal, whereas correlations for the adult group are presented below the diagonal. Figures in parentheses are standard deviations; * = p <0.01; ** = p <0.001.
effectiveness and procedural justice at Step 2 of the analysis as predictors of police legitimacy. The second analysis used control variables at Step 1, police effectiveness and procedural justice at Step 2, and police legitimacy at Step 3 as predictors of willingness to report crime to police.

It can be seen from Table 2 that procedural justice had a significant positive effect on adolescents’ perceptions of police legitimacy. Those youth who thought police were more likely to use procedural justice were more likely to view police as legitimate. Table 2 also shows that perceptions of police effectiveness predicted views about police legitimacy, with those believing the police do a good job at tackling crime being more likely to see police as legitimate. Those youth who had personal contact with police were less likely to view police as legitimate.

Table 3 reveals that demographic features played little role in the youth sample in predicting their willingness to report crime to police. However, youth who had contact with police were less likely to report that they would cooperate with police. Importantly, it can be seen that both police effectiveness and procedural justice predicted willingness to cooperate with police in Step 2 of the analysis. On entry of the police legitimacy variable at Step 3, however, neither police effectiveness nor procedural justice continued to be significant predictors of cooperation. Instead, police legitimacy was the main predictor of young people’s willingness to cooperate with police. Hence, adolescents’ perceptions of police legitimacy mediated the effects of both procedural justice and police effectiveness on willingness to engage with police. The significance of these two mediation effects was confirmed via two Sobel tests ($z = 5.13, p < 0.001$ and $z = 5.27, p < 0.001$, respectively). Given the significant mediation effects, Hypothesis 1 was supported. This is the first time in the literature that these mediation effects have been reliably demonstrated with a youth sample.

The second aim of the study was to test whether procedural justice would matter more than police effectiveness in predicting youth views of police legitimacy and willingness to cooperate with police. Tables 2 and 3 highlight the importance of
Table 3. Regression analysis showing predictors of willingness to report crime to police (youth sample).

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Step 1</th>
<th></th>
<th></th>
<th>Step 2</th>
<th></th>
<th></th>
<th>Step 3</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE_B</td>
<td>$\beta$</td>
<td>B</td>
<td>SE_B</td>
<td>$\beta$</td>
<td>B</td>
<td>SE_B</td>
<td>$\beta$</td>
</tr>
<tr>
<td>Age</td>
<td>0.00</td>
<td>0.02</td>
<td>-0.00</td>
<td>0.00</td>
<td>0.02</td>
<td>-0.01</td>
<td>0.00</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Ancestry (0 = Australian; 1 = not Aust.)</td>
<td>-0.09</td>
<td>0.18</td>
<td>-0.03</td>
<td>-0.07</td>
<td>0.17</td>
<td>-0.02</td>
<td>0.03</td>
<td>0.16</td>
<td>0.01</td>
</tr>
<tr>
<td>Sex (0 = female; 1 = male)</td>
<td>0.22</td>
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<td>0.07</td>
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<td>0.07</td>
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<td>0.14</td>
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*p < 0.05; **p < 0.01; ***p < 0.001
police effectiveness in predicting youths’ perceptions of police legitimacy and cooperation. Research with adults tends to find that procedural justice is more important to people than police effectiveness in shaping views of police legitimacy and willingness to cooperate (see Sunshine and Tyler 2003). The results presented in Tables 2 and 3 suggest that police effectiveness may in fact be just as important as procedural justice in shaping young people’s perceptions of police legitimacy and their willingness to cooperate with police. Hence, Hypothesis 2 was not supported. This particular finding supports the results of more recent adult studies undertaken in countries outside the USA (e.g. Hinds and Murphy 2007, Tankebe 2009).

**Adult findings**

The third aim of this study, and perhaps the more important one, was to extend previous research in the area by assessing the *importance* that procedural justice has with youth relative to adults. Based on the identity-related research presented in the Introduction, it was predicted that procedural justice would matter more to youth. Two additional regression analyses were undertaken using the adult survey data to test this prediction.

It can be seen from Table 4 that the pattern of results for the adult data broadly replicates the youth findings presented in Table 2. Both procedural justice and police effectiveness predicted perceptions of police legitimacy. In fact, both variables appeared to predict legitimacy with equal weight.4 It can also be seen from Table 4 that the age of respondents, and the ancestry of respondents each predicted perceptions of police legitimacy. Older participants were more likely to view police as legitimate, and those born in Australia were more likely to view police as legitimate. Personal contact with police played no role in predicting adults’ views of police legitimacy.

When predicting adults’ willingness to report crime to police, Table 5 also reveals that several demographic factors were important. Older participants, women and

<table>
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<th>Step 2</th>
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<td>B</td>
<td>SE</td>
<td>β</td>
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***$p < 0.001$
Table 5. Regression analysis showing predictors of willingness to report crime to police (adult sample).

<table>
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<tr>
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<td></td>
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<td>SE_B</td>
<td>β</td>
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<td>SE_B</td>
<td>β</td>
<td>B</td>
<td>SE_B</td>
<td>β</td>
<td>B</td>
</tr>
<tr>
<td>Age</td>
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<td>0.02</td>
<td>-0.07***</td>
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<tr>
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<td>0.03</td>
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<td>-0.02</td>
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<tr>
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<td></td>
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<td>0.05</td>
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<tr>
<td>$R^2$ change</td>
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*p < 0.05; **p < 0.01; ***p < 0.001
those born in Australia were more likely to indicate they would report crime to police. Prior personal contact with police played no role. As can be seen in Step 2 of Table 5, procedural justice was also found to directly predict willingness to cooperate with police in adults; police effectiveness played no role in the adult sample. At Step 3, adults’ perceptions of police legitimacy were also found to predict their willingness to report crime to police. Importantly, procedural justice still continued to be a significant predictor of cooperation after addition of the police legitimacy measure at Step 3 of the analysis. While such a finding suggests that police legitimacy did not fully mediate the effect of procedural justice on cooperative behaviour, the reduction in the strength of the regression coefficient for the procedural justice measure between Steps 2 and 3 of the model suggests a partial mediation. A Sobel test confirmed that the reduction in the strength of the coefficient between Steps 2 and 3 was significant ($z = 5.99$, $p < 0.001$). Hence, in this adult sample, using these survey measures, perceptions of police legitimacy only partially mediated the effect of procedural justice on willingness to report crime to police.

**Comparing adults and youth**

Using a procedure and formula recommended by Paternoster et al. (1998) to test for the equality of regression coefficients across different groups, it was revealed that the youth sample results differed significantly from the adult sample in a number of ways. First, when predicting people’s perceptions of police legitimacy, it was found that procedural justice did not matter more to youth than it did to adults ($z = -0.37$, $p < 0.30$); in fact procedural justice was just as important to both groups in determining how they perceived the legitimacy of police. Perhaps more importantly, ‘age group’ appeared to moderate the effect of procedural justice on one’s willingness to engage with police. Procedural justice was slightly more important to youth than adults in predicting crime-reporting behaviour ($z = 1.92$, $p < 0.06$). This particular finding supports Hypothesis 3.

While not the original focus of this study, the importance of police effectiveness to youth and adults was compared. Police effectiveness was just as important to adults as it was to youth in predicting perceptions of police legitimacy ($z = -1.11$, $p > 0.05$). However, it was found that police effectiveness was also significantly more important to youth than to adults in predicting their willingness to report crime to police ($z = 3.29$, $p < 0.001$).

**Discussion**

The main objective of this study was to explore the role of procedural justice in fostering youth support and cooperation with police. Specifically, it aimed to examine whether young people’s perceptions of police legitimacy could mediate the impact of procedural justice on self-reported willingness to engage with police as it usually does in adults. It was found that it did, supporting Hypothesis 1. The study also aimed to test whether procedural justice mattered more to youth than police effectiveness in determining their views of police legitimacy and cooperative behaviour. It was found that for youth, police effectiveness was a stronger predictor than procedural justice of both police legitimacy and cooperation, thereby rejecting Hypothesis 2 (this was not the case for adults). More importantly, the study also
aimed to examine whether procedural justice would matter more or less to youth than it does to adults. This is the first time this latter issue has been addressed in the literature. It was found that procedural justice carried greater weight for youth than adults when predicting cooperative behaviour, thereby supporting Hypothesis 3.

An identity-based framework was used to make predictions about how youth might react differently to procedural justice than adults. An important premise of the group value model (Lind and Tyler 1988) is that people care about procedural justice because it communicates important information about the quality of their relationship with others in a group. Social identity theories also suggest that people are motivated to develop a positive sense of self. The group value model suggests that one’s status within a group can contribute to this self-concept and so people seek out information that group representatives (e.g. police) value them as an important member of the group. If authorities treat people with respect, fairness and dignity, then it communicates value, and this in turn enhances a positive sense of self.

Recent experimental research within the procedural justice literature has aimed to examine the contingencies that surround the effectiveness of procedural justice. As noted in the Introduction, researchers have found that self-uncertainty as an individual difference variable can moderate the effect of procedural justice on behaviour; with those who are more uncertain about their identity being more responsive to procedural justice (DeCremer and Sedikides 2005). DeCremer and Sedikides (2005) suggested that future research be directed at examining whether different groups of people who may be more self-uncertain will respond to procedural justice in a way similar to that of self-certain individuals. Previous research has demonstrated that adolescents are higher on levels of self-uncertainty than adults (e.g. Meilman 1979, Waterman 1982). As a group, therefore, one would expect adolescents’ sense of self to be much less developed than adults’, allowing one to examine the relative importance of procedural justice to both groups.

The findings of this study align well with DeCremer and Sedikides’ (2005) research findings (see also Van den Bos 2001, Van den Bos and Lind 2002). Specifically, this study demonstrated that when compared to adults, youth are more sensitive to procedural justice (Hypothesis 3 supported). While there was no difference between adults and youth in the relative importance of procedural justice to shaping perceptions of police legitimacy, it was found that ‘age group’ moderated the effect of procedural justice on willingness to report crime to police, with procedural justice taking on special importance to youth. This could be due to the level of self-uncertainty that youth feel.

Such a finding has important implications for procedural justice research and it may be fruitful for future research to examine in greater depth the importance of self-uncertainty to not only youth, but other groups, in predicting their responsiveness to procedural justice. Researchers should also consider measuring the degree to which individuals feel connected to and valued by mainstream societal institutions as findings reported here suggest that procedural justice may be particularly important to those who feel more marginalised by society. Having said this, it should be noted that the youth as a group, were significantly more likely to have had contact with police than adults. There is therefore the possibility that this factor led youth to be more likely to focus on the procedural justice aspects of encounters with police.

This study also found that perceptions of police legitimacy could mediate the effect of procedural justice on young people’s willingness to engage with police. This
is the first time that such a finding has been demonstrated using a youth sample, and it replicates a common finding in the adult literature. Hence, Hypothesis 1 was supported.

A somewhat interesting and unexpected result revealed by this study was that police effectiveness also appeared to be particularly important to youth in their decision to cooperate with police (Hypothesis 2 rejected). As noted earlier, the procedural justice literature has tended to reject the idea that police effectiveness is as important to people as procedural justice (Tyler 1990). The findings of this study support a growing number of studies that show that police effectiveness can be extremely important in certain circumstances (e.g. Carr et al. 2007, Hinds and Murphy 2007, Hinds 2009, Tankebe 2009). For example, in his study of citizens living in Ghana, Tankebe (2009) found that procedural justice mattered much less to respondents when predicting their willingness to cooperate with police; it was police effectiveness that predicted whether or not they would cooperate. It was suggested that this was the result of ‘police legitimation deficits and the public’s alienation from the Ghana police’ (Tankebe 2009, p. 1265). Tankebe (2009, p. 1282) suggested a process-based or normative understanding of cooperation with police may be less compelling in Ghanaian culture for two reasons. First, he argued Ghanaian people can expect a high risk of violent crime. Citizens may thus be primarily concerned with instrumental factors when considering whether or not to cooperate with the police by calling them to report crime or assisting the police more broadly. Second, Tankebe questions the applicability of the process-based model of police legitimacy in contexts where police are more likely to use ‘force, fear and intimidation’ to obtain citizen compliance. The process-based model, which rests on normative concerns, may not be pertinent in Ghana because ‘genuine (normative) consent’ is not a viable option (Tankebe 2009, p. 1280). These explanations might also be relevant to explaining why youth may value police effectiveness more than adults do. Youth, as a group, are more likely than adults to become the victims of violence (Hashima and Finkelhor 1999). Second, research consistently reveals that youth are more likely than adults to be subject to inappropriate police force, with police also being more likely to use intimidation tactics with youth (Cuneen and White 2011). As can be seen in Table 1, youth in this study were less likely than adults to view police as legitimate, thus providing validation to such a claim. Interestingly, Carr et al. (2007) have also found that youth living in high-crime neighbourhoods in Philadelphia in the USA place significant emphasis on police effectiveness in combating crime. Taken together, such findings challenge the longstanding assumption that people in Western societies value fair treatment more than police effectiveness. Such findings suggest that researchers should not underestimate the importance of police effectiveness in shaping young people's attitudes and behaviours towards police. It appears that such a finding may be most likely to occur in contexts where ingrained distrust of police exists or where people feel particularly marginalised by police. Further evaluation of the relative importance of police effectiveness to both youth and adults in such circumstances may prove fruitful for future research.

**Implications for police practice**

The findings of this study have implications for police practice. Police, by virtue of their role as social regulators in society, must often take unpopular actions such as
punishing rule breakers or asking people to ‘move on’, sometimes when they are not doing anything illegal. This latter action is commonly directed at youth. In fact, in the USA, UK and Australia, the dynamics of police/youth interactions are often characterised by high rates of arrest, use of force interactions and disproportionate contact (Alder et al. 1992, Thurau 2009); the contact levels reported here support this. The findings of this study suggest that procedural justice policing may be a particularly useful tool for police to use when dealing with youth.

Procedural justice policing has many advantages over a coercive deterrence-based policing approach. The main advantage is that the motivation by young people to obey the rules and norms of society, as well as obey police directives, is self-regulatory under a procedural justice policing model. This means that under such a policing model, people voluntarily defer to police requests and directives and are less likely to challenge and defy police decisions. They are also more likely to want to voluntarily cooperate and engage with police when a direct request has not been made.

With previous research demonstrating that procedural justice can reduce feelings of anger that lead to rule breaking (see Piquero et al. 2004, Piquero et al. 2005, Murphy and Tyler 2008), and can counteract labelling processes that are marginalising and stigmatising (Braithwaite 1989, Norman 2009), the finding that procedural justice can also improve young people’s perceptions of police legitimacy and their willingness to engage collaboratively with police in crime control further points to the value of police adopting such an approach with youth. If police make a commitment to utilise fair treatment with the young people they come into contact with, then the results of this study suggest that they can have a positive influence in shaping relationships with young people and can foster a genuine willingness from youth to cooperate and engage with police. As noted earlier, police have traditionally found it difficult to engage young people in collaborative crime control efforts. This study suggests that procedural justice is more important to youth than it is to adults in shaping their willingness to engage with police. Having said this, it is important to also acknowledge the important role that perceptions of police effectiveness can have in promoting young people’s willingness to cooperate with police. Police should ensure that they are effectively dealing with problematic youth issues, while not unfairly targeting law-abiding youth.

Strengths, limitations and suggestions for further research

A major strength of this study is that it is one of the few studies that have focused on procedural justice effects on perceptions of police legitimacy and the cooperative behaviour of young people. In fact, it is the first study to show that perceptions of police legitimacy can mediate the effect of procedural justice on youths’ willingness to cooperate with police in collaborative crime control efforts. It is also the first study to compare the relative importance of procedural justice to both youth and adults in the same study. While the findings are important and have clear implications for policing practice, it should be noted that this study has a number of important limitations that should be considered when interpreting the results.

First, it utilised cross-sectional survey data. The causal relationships between variables are possibly obscured, as data from all participants were collected at one point in time. Longitudinal survey studies, or experimental field trials of procedu-
rally fair policing on the ground, offer a more effective approach for determining issues of causality. Future research should therefore attempt to examine whether a causal link between the concepts studied can be demonstrated in a youth sample.

A further limitation of this study is the sampling used for the youth group. This study aimed to develop an understanding of the attitudes young Australians have towards the police, and as such the sample was taken from 12- to 17-year olds at two public high schools in a metropolitan area. The city chosen was a medium sized, predominantly middle class Australian city. Coupled with the relatively low response rates (particularly for School 2), this narrow sample group means the generalisability of the study is perhaps limited. Crime statistics of this jurisdiction reveal that violent crime tends to be relatively low when compared to the national average. As such, the results of this study may not be able to be generalised to Australian youth who attend private schools, to those who reside outside of metropolitan areas, or to those who live in at-risk neighbourhoods, or large cities with higher rates of violent crime. While the ICSEA index for each of the two sampled schools fell close to the mean for all Australian schools, future research in this area should focus on gaining a youth sample from a broader cross-section of the community.

The measures used in this study were also somewhat limited. First, the cooperation scale measured self-reported willingness to report crime. Self-reported behaviour may be different from actual behaviour. It is possible that an intention to behave in a certain way may not result in actual behaviour. Hence, future research may wish to include measures of actual behaviour through police records to assess whether procedural justice can influence real cooperative behaviour with police. Second, each of the youth and adult surveys contained additional items that could have been used to strengthen the quality of the scales used. However, given the focus of this study was to directly compare youth with adults, it was important to utilise survey items that would allow a direct comparison across the two groups. This study was therefore limited by the existing survey design and the items contained within it. Specifically, the items used to compare procedural justice and police effectiveness across youth and adults differed slightly in their wording. Future research should aim to undertake a comparative study of youth and adults using identical survey measures to ascertain whether the findings of this study can be replicated using more robust items. Related to this issue is the fact that researchers in the procedural justice literature have used inconsistent sets of survey items in different papers to measure core theoretical concepts, and this paper is no exception. This is an important methodological concern in the field and one that readers should be made aware of given that measurement problems can have important effects on substantive findings (Reisig et al. 2007). While the scales constructed were satisfactory in this study, and a CFA revealed distinct concepts, future research should ascertain whether the results can be replicated using different measures.

Finally, while the proposition that youth are more self-uncertain because they are developing their sense of identity through adolescence has been consistently demonstrated through developmental research (e.g. Archer 1982), this study did not actually assess participants’ sense of identity or level of self-uncertainty. The link between perceptions of procedural justice and these identity-related concepts will need to be empirically validated in future research using both adults and youth before we can conclude with certainty that these processes are in fact taking place.
Conclusion

Despite the limitations of this study, however, it is very important for police to know what strategies will be effective in encouraging cooperation and compliance with their directives. The current investigation has shown that procedural justice may be particularly beneficial for police when dealing with adolescents, not only for shaping their views of police but also to encourage them to engage with police. Such strategies may prove to be particularly important in disadvantaged communities where youth have been reluctant to engage with police out of fear that they will be further victimised.

Acknowledgements

This work was supported by the Australian Research Council (Grant Numbers DP0987792, LP0346987).

Notes

1. Twenty five per cent of all Australian citizens are born overseas (ABS 2006).
2. It is difficult to ascertain why School 2 had a much lower response rate than School 1, and why the overall response rates were somewhat low for both Schools. One possibility is that the socio-economic status as measured through the ICSEA index for School 2 was lower than School 1. It is known from other surveys conducted with adults in Australia that participation in research tends to be higher among more educated and affluent communities (Murphy et al. 2008). Perhaps consent forms may not have made their way to parents for signing for School 2 recipients. Having said that, the gender breakdown of respondents for each school was representative of the gender breakdown of their respective schools. For School 1, surveys were received from 48% of girls and 52% of boys (school breakdown was 51% girls and 49% boys). For School 2, 49% of the respondents were girls and 51% were boys (school breakdown was 49% girls and 51% boys). The percentage of respondents born overseas for each school also broadly matched population estimates, although School 1 slightly under-represented those born overseas; 20% of respondents from School 1 were born overseas, whereas 26% from School 2 were born overseas.
3. By law, all citizens over 18 are required to register their name and address on the electoral roll.
4. When legitimacy was measured with only two items (‘Most police are honest’: ‘Everyone should always follow the directions of police officers’), the findings generally remained the same for both youth and adults. The major difference was that for the adult group, procedural justice dominated perceptions of police legitimacy and cooperation, while police effectiveness played no role.
5. It should be noted, however, that the police effectiveness results in this study could have been an artefact of the differences in the police effectiveness measures used across the two age groups.

References


Appendix 1

The appendix presents items used to assess the concepts of interest in this study. It also indicates reverse coding of items where relevant. Items presented first were in the adult survey, those presented second were in the youth survey.

**Police legitimacy**

- L1: Most police are honest
- L2: I have confidence in the police
- L3: I have great respect for the police
- L4: Everyone should always follow the directions of police officers even if they go against what they think is right

**Procedural justice**

- PJ1: It is not about what you have done, but who you are and who you know when it comes to the police (R)/Police treat young people differently from the way they treat adults (R)
- PJ2: It depends on what mood a police officer is in whether they book you (R)/tell you off (R)
- PJ3: The more expensive your car the more likely you are to get away with an offence (R)/Police treat you differently depending on where you live (R)

**Police effectiveness**

- E1: How well do police do in dealing with problems that concern people in your suburb/at keeping an eye on gangs of young people
- E2: How well do police do in working together with residents to solve local problems/dealing with children who break the law
- E3: How well do you think police are doing to prevent crime/at catching big crooks

**Willingness to report crime to police**

Indicate in which of the following situations you would tell the police:

- If a gang of youths was beating someone up
- If someone was destroying public property
- If someone you know had committed a crime/pinched a car
- If you saw someone/something suspicious/If someone was hanging around parked cars
- If you knew someone was dealing drugs/If someone had drugs on them