

Re-examining the normative, expressive, and instrumental models:

How do feelings of insecurity condition the willingness to cooperate with police in different contexts?

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Abstract

Policing by consent has long been viewed as a fundamental feature of modern policing. Police need citizens to report crime and suspicious activity and to assist police with their enquiries. The procedural justice model is commonly employed to explain cooperation with police, yet few studies consider how social context informs cooperation. In this study we examine the role of contextual factors in developing a better understanding of the procedural justice model of cooperation with police. To do so we compare results in two contexts: St Louis County (US) and Brisbane (Australia). We find similarities and differences in the way contextual factors (including feelings of insecurity and social cohesion and trust) impact the willingness to assist police across our two research sites.

Keywords

Cooperation with police, procedural justice, cohesion, insecurity

Introduction

The procedural justice model simplifies our understanding of public cooperation with police. When encouraging cooperation, Tom Tyler and others highlight the importance of the way police treat the public. The dominant model of cooperation with police, the normative model, positions police use of procedural justice as the key driver of cooperation (see for example Bradford 2014; Hinds and Murphy 2007; Murphy et al. 2008; Sunshine and Tyler 2003; Tyler and Fagan 2008; Tyler and Huo 2002). Yet, as Bennet and Lynch (2006, p. 19) assert, “Police activity alone may not be sufficient to explain differences in public cooperation.”

In this paper we take a more nuanced approach. We consider that the way the public perceive the police, and motivations for engagement with police, are part of a more complex story. As many members of the public are unlikely to encounter police officers in their day-to-day lives, understandings of the police and perspectives on cooperation are likely elicited from one’s social environment. Drawing on the normative, expressive and instrumental models of cooperation with police, we consider how individuals’ perceptions of police and their neighbourhood context, explain their willingness to cooperate with police. We begin with the normative model. In this model procedural justice and police legitimacy are paramount. We then incorporate the expressive model of cooperation, where the perceived level of social cohesion and trust in one’s neighbourhood is expected to impact upon the willingness to assist police (Jackson *et al.* 2009). Finally, we consider the instrumental model. Here we place particular emphasis on feelings of insecurity. Scholars question whether or not feeling worried about one’s safety may outweigh the priority placed on safeguarding civil liberties (Rosenbaum 1993), weakening the robust association between procedural justice and the willingness to cooperate with police. We anticipate that when individuals perceive their neighbourhoods are insecure, perceptions of police, and

particularly concerns about procedural justice, will matter less for predicting individuals' cooperation with police.

To test these assumptions, we conduct a secondary analysis of data collected from two very different contexts: 1) high crime residential hot spots in St Louis County, Missouri, in the US and 2) diverse residential neighbourhoods in Brisbane, Queensland in Australia. To pre-empt our findings, we conclude that overall, similar predictors of cooperation with police operate in these two areas, but that residents draw on different neighbourhood cues (i.e. feelings of insecurity and social cohesion and trust) when deciding whether or not they will cooperate with police. How context affects the frequency of exposure to police and to crime, helps us explain these results.

Models of Public Support and Cooperation with Police

In the extant literature, public cooperation with police is generally conceived of within three theoretical models: the normative model, the expressive model and the instrumental model. The normative model assumes that public support for police arises out of experience with police and concern for how citizens are treated. In this model, the public decide to support police based on procedural justice, rather than instrumental considerations (Hinds and Murphy 2007; Sunshine and Tyler 2003). When police treat citizens with dignity and respect and demonstrate neutrality in their decision-making, citizens will be more willing to assist police with their enquiries, call the police to report crime and/or report suspicious activities (Kochel *et al.* 2013; Murphy and Cherney 2011; Murphy *et al.* 2008; Tyler and Fagan 2008; Sargeant *et al.* 2014).

The expressive model provides an alternate view. In the expressive model, support for police is based on “symbolic concerns” about neighbourhood cohesion, in addition to procedural justice. Evidence supports that when people have more favorable views about their neighbourhoods, they have more favorable views about police (Cao *et al.* 1996; Jackson

and Bradford 2009). In this model the police are considered to be representatives of the community and as such when citizens believe they live in a 'good neighbourhood' they will believe the police are also 'good' and will be more willing to cooperate with them (Jackson *et al.* 2009). Symbolically, police are responsible for and thus a reflection of the social order. Therefore, when residents are engaged with their neighbors and comfortable with the social norms that they share, this socially ordered environment portrays police in a positive light and they gain some credit. Residents are motivated to cooperate with police to sustain the status quo. This seems especially likely when residents have limited personal and vicarious experiences with police upon which to base their views.

Lastly, the instrumental model explains that people cooperate out of "self-interest" (Tyler and Fagan 2008, p. 233). The public view police core business as reducing crime and increasing safety, therefore support for police may be rooted in police effectiveness and feelings of insecurity. The instrumental "model holds that personal worries about falling victim of crime drive confidence in the police." (Jackson *et al.* 2009, p. 101). Feeling at risk or insecure in one's neighbourhood is an instrumental motivator to cooperate with police.

A great deal of research tests and compares the various elements of these three models. Beginning with the work of Tom Tyler and his colleagues in the US (Sunshine and Tyler 2003; Tyler and Fagan 2008; Tyler and Huo 2002), a consistent pattern emerges: procedural justice is revealed as the key driver of police legitimacy and cooperation (see Donner *et al.* 2015; Kochel 2014; Mazerolle, Bennett *et al.* 2013; and Mazerolle *et al.* 2014 for reviews). The culmination of these research findings are observed in the recommendations made to US President Barack Obama, by the President's Taskforce on 21st Century Policing (2015, p. 11):

Law enforcement culture should embrace a guardian mindset to build public trust and legitimacy. Toward that end, police and sheriffs' departments should adopt procedural

justice as the guiding principle for internal and external policies and practices to guide their interactions with the citizens they serve.

Recommendations that police prioritise procedural justice are also made in the Australian context. In 2009, Lorraine Mazerolle and her colleagues conducted the first experiment to test police use of procedural justice on the front-line in Brisbane, Australia. Mazerolle, Antrobus *et al.* (2013) operationalised the key principles of procedural justice in Random Breath Testing traffic stops (i.e. road blocks) finding citizens who received the procedural justice treatment did rate the specific officer higher on procedural justice. Moreover, officer ratings “translated into enhanced perceptions of the procedural justness of police in general and higher reported perceptions of police legitimacy and satisfaction with the police” (Mazerolle, Antrobus *et al.* 2013, p. 56). As a result of the procedural justice trial, Mazerolle *et al.* (2014) conclude procedural justice ought to be embedded in police practice going forward.

Questioning the Dominance of the Normative Model

Despite the adoption of procedural justice in theory, and recommendations that it be incorporated into police practice (see for example Mazerolle, Bennett *et al.* 2013; Mazerolle *et al.* 2014), evidence suggests that cooperation with police may be more nuanced than is currently implied. Tyler’s earlier work in the post-9-11 New York City context, suggests that residents are motivated to empower police to perform intrusive stops and searches when they believe police are effective (Sunshine and Tyler 2003). Tankebe (2009) finds that in Ghana, procedural justice is not a significant predictor of cooperation with police once accounting for instrumental judgments of police such as effectiveness, risk assessment, outcome favourability and corruption experience. Other, similar studies suggest procedural justice may not be the most effective strategy for encouraging police legitimacy and cooperation with

police across all populations and cultural contexts (see Karakus 2015; Murphy *et al.* 2014; Reisig and Lloyd 2009; Sargeant *et al.* 2013).

What can explain this curve-ball in the procedural justice literature? Tankebe (2009) argues that Ghana's high crime/high corruption contextual setting is to blame. In Ghana “people do not cooperate with the police, because of a feeling of moral obligation or because police treat them procedurally fairly but because of what they stand to gain, that is, personal and collective security” (Tankebe 2009, p. 1282; see also Karakus 2015; Kochel 2016; Murphy *et al.* 2015; Reisig and Lloyd 2009; Sargeant *et al.* 2013). Rosenbaum (1993) puts forward a similar argument concerning the high risk context of drug markets. He suggests that in risky contexts, civil rights and issues of procedural justice and even perhaps legitimacy, may take a back seat to more pressing and immediate threats to safety.

The relative security of one's context may therefore factor into one's judgments about police. Thus far, there is mixed evidence to support this view. Frank *et al.* (1996) show that assessments about the severity of problems in the neighbourhood substantially influenced residents' decisions to report crimes and suspicious activity to police. Khondaker *et al.* (2015) demonstrate the role of fear of crime in encouraging residents' reporting behaviours among victims and even as witnesses to illegal activity. Similarly, Wells *et al.* (2006) find worry about crime contributes to a resident's choice to call police (as opposed to handing problems informally). Factoring in the neighborhood context Jackson *et al.* (2012) find that worry about crime, collective efficacy and perceived disorder are related to the willingness to cooperate with police in London, however the effects of collective efficacy and disorder were mediated by perceptions of police legitimacy. On the other hand Karakus (2015) finds neither fear of crime, informal social control or cohesion have an impact on cooperation with police in Turkey. Lastly, Kochel (2016) finds perceived victimisation risk moderates the effect of collective efficacy on cooperation with police. Taken together, these studies suggest there is

still much to learn about the way context fits together with the dominant, normative model of cooperation with police.

The Current Study

In the current study we integrate elements from the normative, expressive and instrumental models of cooperation with police, placing emphasis on neighbourhood context. We aim to better understand how perceptions of police might interplay with feelings of insecurity and social cohesion and trust to impact public cooperation with police. We build on prior research conducted by Jackson *et al.* (2012), Karakus (2015) and others, to examine the relative effects of the instrumental, expressive and normative models of cooperation with police, in the neighborhood context. We suggest that cooperation depends not only on what people *think about the police* but also assessments on the *social or neighbourhood context* in which cooperation with police takes place. We test the procedural justice model by examining the effect of procedural justice and police legitimacy on cooperation with police. We test the expressive model by looking for a positive direct effect of social cohesion and trust on cooperation with police — that is, residents will be more willing to cooperate with police when they feel good about their neighbourhoods. Positive direct effects of feelings of insecurity would support the instrumental model; residents will work with and seek help from police because police have the ability to address safety concerns, alternatively high levels of insecurity have the potential to increase crime reporting (see Khondaker *et al.* 2015). We also expect that in contexts where feelings of insecurity are high, the normative model of cooperation with police will hold less explanatory power (Kochel 2012; Sargeant *et al.* 2014; Tankebe 2009). To assess this, we test the moderation effect: that feelings of insecurity will moderate the effect of procedural justice on the willingness to cooperate with police.

We examine these relationships in two distinct contexts: Brisbane, Queensland in Australia and St Louis County, Missouri in the US. We conduct secondary analyses,

capitalising on the availability of two similar surveys collected in two very different contexts. These two surveys provide us with the opportunity to compare and contrast the perceptions and experiences of residents living in: 1) a random sample of neighbourhoods in Brisbane; and 2) a sample of residential crime hot spots in St Louis County. We acknowledge that any differences observed may be due to cultural, social and political differences, however, comparing these results also provides a unique opportunity to learn more about the way in which models of cooperation with police operate in these different contexts. While there is no reason to believe that the normative model and perhaps even the expressive model (albeit there is currently limited empirical evidence testing this model) would not hold in both contexts, we suspected that the St Louis County sample would be more likely to support the instrumental model. Because the St Louis County sample draws from high crime, disadvantaged areas, it is more similar to Tankebe's (2009) sample in Ghana. As Tankebe (2009) reported in his rationale for how the crime-ridden context may have contributed to worries about safety that promote instrumental motivations, we expected that in St Louis County crime hot spots, feelings of insecurity would reveal a moderating effect of insecurity on the ability of procedurally just treatment to promote cooperation. The Brisbane sample, with less disadvantage and crime, should exhibit lower feelings of insecurity among residents, and thus may align with the vast majority of past research that supports the singular superiority of the normative model.

Research Sites

Brisbane

Our first research site is Brisbane. Brisbane is the capital city of the state of Queensland in Australia with a population of approximately two million people. In Brisbane, the majority of residents could be described as Caucasian reporting to be from English, Irish, Scottish,

German, and “Australian” ethnic backgrounds and with 82 percent of Brisbane residents speaking “English only” at home. The median household income in Brisbane is above the national median income (Australian Bureau of Statistics 2011). Table 1 presents site statistics allowing a comparison across research sites.

St Louis County

Our second research site is St Louis County in Missouri, United States. St. Louis County is a diverse, suburban, Midwestern county in the US with approximately one million residents. It is the most populous county in Missouri. Although 70 percent of the population is Caucasian, a significant minority of residents are African American (23 percent) (St Louis County, 2013). While the average household income in the County is above the national average, the Northern part of the County, where many of the sample residents reside, has a geographic concentration of residents with a much lower median income and higher proportion of residents living in poverty. This area also has a high concentration of African-American residents and of crime. The northern portion of St. Louis County is home to Ferguson, MO, where the police shooting of Michael Brown in August 2014 instigated violent protests and looting and triggered international attention on police-community relationships.

[Insert Table 1]

Community Survey Data Sets

Brisbane

The Brisbane survey data employed in the current study was collected in the Australian Community Capacity Study (ACCS) Wave 3 Survey. The ACCS Wave 3 is a survey of 4,403 people living in 148 state suburbs in Brisbane. State suburbs are an area that Brisbane residents consider to be their local community (Mazerolle *et al.* 2012). Suburbs are generally employed as a meaningful unit of analysis similar to the use of neighbourhood in the US

context. The average size of a suburb or neighbourhood in Brisbane is 1,255 hectares or 4.85 square miles. The average number of crime incidents recorded by the Queensland police in 2010 for these suburbs was 1,208 with a minimum of 6 and a maximum of 8,015 (SD 1432).

Neighbourhoods were randomly sampled, and households were randomly sampled within neighbourhoods (for more information on the sampling methods see Mazerolle *et al.* 2012). Data was collected between August and December 2010 using Computer Assisted Telephone Interviewing (CATI). In addition to this primary sample, an ethnic booster sample was recruited to ensure that the study was representative of minority ethnic groups in Brisbane including Indian, Vietnamese and Arabic-speaking cultural groups. Participants were sampled using the common surnames method. Surveys were face-to-face (rather than CATI) and were conducted by a research consultancy specialising in research with Cultural and Linguistically Diverse populations. Both survey instruments contain the same questions and so the two samples were combined for the analysis. The cooperation rate was 68.53% for the primary sample and 43.94% for the ethnic booster sample.

St Louis County

Data employed were collected in Wave 1 (baseline) of the St Louis County Hot Spots in Residential Area's (SCHIRA) Experiment (see Kochel *et al.* 2015 for details about the experiment). The data were collected between March and May 2012. The baseline survey includes 985 residents of 71 crime hot spots. Hot spots were chosen based on one year of Part I and Part II crime data in residentially zoned areas in the county over which St Louis County Police had primary patrol jurisdiction. At baseline (2011), sites averaged 31 crime incidents in a year, ranging from 8 to 115 incidents (crime counts). Calls for service ranged from 73 to 904, with a median of 203 (the hotspot with 904 calls is an outlier). Project hot spots account for 0.25% of the residential areas in St. Louis County and 10.6% of the Part I and II crimes in residential areas. Common crime problems included assault, vandalism, burglary, drugs, and

larceny. The average size of these hot spots is 2.59 hectares or .01 square miles (approximately 4 city blocks).¹ Addresses were randomly selected within the hot spots and surveys were conducted face-to-face. The cooperation rate was 38.43%.²

Sample Comparison

The Brisbane and St Louis County samples have similarities and differences which speak to the types of contexts they represent (see Table 2). The Brisbane sample is older, on average, than the St Louis County sample. This may be an artefact of the different survey methods (i.e. primarily telephone in Brisbane versus face-to-face in St Louis County) or due to a younger population in the disadvantaged areas of St Louis County. We can see that the gender proportions are the same (59% female). Differences between the two samples are most apparent when we consider minority status, homeownership, and time at current address. In Brisbane, 10% of participants are of minority status compared to 77% in St Louis County; 87% are homeowners in Brisbane compared to 21% in St Louis County; and 23% of participants have lived at their current address for five years or less in the Brisbane sample compared to 71% in the St Louis County sample. Additionally, twice the proportion of sampled residents from St Louis County have been victimised by violent crime in recent months relative to the Brisbane sample. Thus, the higher crime context of St Louis County has more minorities, fewer homeowners and greater residential mobility, as past research on social disorganisation would predict.

¹ The area units in Brisbane are larger than in St Louis County, which may mean that the residents within hot spots have more homogenous views than residents in suburbs. However, the larger sample sizes in the Brisbane sample may help with this. Furthermore, we account for the nesting of residents in hot spots/suburbs by modeling the random effects (although see footnote 3).

² Like others who have surveyed high crime areas, the St Louis County response rate is not enviable (e.g., Ferguson and Mindel 2007 had a 33% response rate, Chermak *et al.* 2001 had a 31% response rate and a 49% cooperation rate, while Hinkle *et al.* 2013 had a 46.1% cooperation rate). See (Pashea and Kochel 2016) for an explication of the difficulties of conducting surveys in high crime areas. Nonetheless, it is an improvement over at least one foundational study about the antecedents to cooperation with police (Sunshine and Tyler 2003 reported 22% at baseline).

[Insert Table 2 here]

Variables

As mentioned, we adopt a comparative approach. It is important to note that comparative studies in criminology are difficult and that even when using identical survey instruments and sampling methodologies (which we did not), comparing results is challenging (Bennett 2004; Bennett and Flavin 1994; Newman 1977; Schaible 2012). McFarlane (2010, p.730) explains:

The validity of comparative analysis across contexts can be affected by a variety of factors, including whether unknown variables from one context influence the study; whether the generality of underlying causes is known; or whether language barriers preclude understanding beyond surface appearances.

For these reasons, we took particular care when constructing our variables and analytic strategy and even so, acknowledge the limitations of this type of comparison. We aimed to strike a balance between creating the best measures of constructs available within each survey with creating comparable measures across the data sets. As survey items were not identical in most cases, we carefully examined the survey instruments to identify measures with equivalent meanings on face value. We constructed the key variables using the matched survey items. We tested the factor structure of our dependent and key independent variables using confirmatory factor analyses within each sample. Table 3 provides the indicators and model fit by site for the latent constructs.

[Insert Table 3 here]

The dependent variable, *cooperation with police*, reflects a willingness to assist police by providing information about suspicious activity or reporting crime. This is similar to how cooperation has been measured in past research (e.g. Jackson *et al.* 2013; Kochel *et al.* 2013; Sunshine and Tyler 2003). *Feelings of insecurity* is measured by asking residents to report on concern for their safety when walking in their neighbourhoods at night. In St Louis

County this was measured on a four point Likert scale (1 = feeling very unsafe to 4 = feeling very safe), in Brisbane this was measured on a five point Likert scale (1 = strongly disagree to 5= strongly agree that “I feel safe walking down the street after dark”). As four or five point scales arguably do not represent continuity, and to increase comparability, we recoded these variables to create binary measures of insecurity. The binary variables reflect residents’ concern for their safety when walking in their neighbourhoods at night (St Louis County: 1=feeling unsafe or very unsafe; Brisbane: 1=strongly disagree or disagree that “I feel safe walking down the street after dark”). Perceptions of safety and insecurity have been measured with questions similar to this one across numerous studies, even across disciplines (e.g. Ratcliffe *et al.* 2015; Rantoakokko *et al.* 2009), including Gallup polls. *Procedural justice* reflects a belief that area police are polite or respectful, are fair, and listen to people, as is historically measured (Tyler and Huo 2002). *Police legitimacy* reflects respect for police authority and the belief in the obligation to accept or respect police decisions and directives (Tyler 1990). *Social cohesion and trust* draws from the questions presented in the Project on Human Development in Chicago Neighborhoods study (see Sampson 2012) and reflects a belief that neighbourhood residents can be trusted, and that the neighbourhood is socially cohesive.

To avoid misspecification of the model, we include control variables to account for demographic characteristics that are known to be correlated with perceptions of police and cooperation with police. *Age* is a continuous measure. *Female* (1), *tenure at current address* (1= Lived at current address for 5 years or less), and *homeowner* (1= Owns home) are binary. The referent group for *education* is attending school beyond high school. The two categories included in the model are *Less than high school education* (1/0) and *High school educated* (1/0).

The remaining control variables are comparable but not equivalent across contexts. For *minority ethnicity* in St Louis County, this variable is coded as 1=“African American”, 0= “Other.” In Brisbane, this variable is coded as 1= “Speaks a language other than English at home,” 0= “Speaks English only.” These variables reflect the way in which ethnic minority status is commonly captured in each of the two research locations (that is, in Australia race is not generally used to categorise ethnic status, and there is not one or two distinct, large ethnic minority groups, in comparison to the US). To account for crime, we included *violent victimisation* and *property crime victimisation*. In St Louis County, residents were asked to report on whether they had been a victim of property crime in the preceding six months and whether they had been a victim of violent crime in the past six months. In Brisbane these variables captured victimisation for the preceding 12 months. We account for reported victimisation at the individual level, but also control for neighbourhood victimisation rates. In order to compute a rate and ensure that these measures were comparable, we divided the number of reported victimisations in a neighbourhood by the neighbourhood population and then divided by the number of months included in the question (six for St Louis County, 12 for Brisbane). The resulting figure reflects the proportion of neighbourhood residents who reported being victimised by property and violent crime in an average month. We opted to utilise this measure of victimisation rather than the recorded crime rates for the area due to potential cross-cultural differences in defining, reporting, and recording crime incidents.

Analyses

Our primary analysis applies ordinary least squares regression (OLS)³. Prior to running the regression models, we first examined whether commonly held expectations for perceptions of police in high crime versus average neighbourhoods held in these contexts. For this

³ Likelihood-ratio tests for each site indicate that whilst the data are clustered, multilevel models were not a significant improvement over the OLS models.

comparison only, we converted the variables into percent of maximum possible scores (POMP), which allowed us to compare the levels of each variable on a meaningful and comparable scale. The resulting 0 to 100 percent range is easily understood across the two contexts.⁴ This is important, because the level of crime, disorder, and disadvantage are principal distinctions between the research sites relevant to our theoretical position. While the central feature of the analysis is to examine the potential moderating effects of feelings of insecurity, we first examined whether basic expectations found in past research held for these samples—that residents of higher crime, disadvantaged areas do indeed feel less secure, but also tend to have less favorable views about their neighbourhoods (e.g., social cohesion and trust) – and compared perceptions of procedural justice and police legitimacy. POMP scores allowed us to compare the levels of these items across the different samples.

The primary goal of the comparison study is to determine whether the antecedents of cooperation were similar or different across the two contexts, so we ran regression models for each sample, first testing the normative model, then adding the expressive and instrumental models, and finally testing the moderation effect of feelings of insecurity on procedural justice. Variables were entered in blocks in three models in order to observe the relative contribution of each block of variables to the proportion of variance explained and to allow for mediation effects. We compared across research sites by examining relationships between variables within each site.

⁴ Cohen *et al.* (1999) provide a detailed discussion of POMP as a meaningful unit of measurement for the social sciences. For each variable, we averaged across non-missing indicators for each case and applied the following POMP score formula:

$$\text{POMP} = \frac{(\text{Observed minus the Minimum in the scale})}{(\text{Maximum minus Minimum scale score})} * 100$$

For POMP scores the range will be 0-100. However it should be noted that the original scale length affects the POMP scores in that smaller scales will have slightly larger gaps between scores such that a 3 on a 4 point scale becomes .75 whereas a 3 on a 5 point scale becomes .60. Each score on a 4 point scale covers .25 points whereas each score on a 5 point scale covers .20 points. However, in the Brisbane sample, which has the 5-point scale, “3” typically reflects a neutral measure and so scoring an 80 on a POMP score in Brisbane is like scoring 75 in St Louis County. Nevertheless, POMP allows for a like comparison even when different scales are used.

Results

Comparing the POMP scores in Table 4 below, we see that in Brisbane there is, on average, higher levels of willingness to cooperate with police, higher levels of police legitimacy, procedural justice and social cohesion and trust, and reduced feelings of insecurity. These results are consistent with what we would expect when comparing a diverse residential city and a sample of crime hot spot residents.

[Insert Table 4]

Demographics and Controls

Table 5 provides the OLS regression results. In general, considering results from all three models, we observe a similar pattern of results across the research sites. When significant, demographic variables in both sites present as they have in past research. Age and female gender were consistently, positively, and significantly associated with cooperation in both sites. Similarly, lower levels of education were negatively associated with cooperation. That is, older, female and more educated respondents were more likely to report a willingness to cooperate with police, and this is sustained across both research sites, which is largely consistent with prior research (Addington *et al.* 2002; Bennett and Weigand 1994; Davis and Henderson 2003; Fagan and Tyler 2004; Garofalo *et al.* 1987; Goudriaan *et al.* 2004; Goudriaan *et al.* 2006; Kury *et al.* 1999; Murphy *et al.* 2008; MacDonald 2001; Ruback *et al.* 1999; Schnebly 2008; Sunshine and Tyler 2003; Warner 2007; although the effects of education are inconsistent across prior studies). Homeownership has a positive coefficient, but is not statistically significant in most models. Time at current address is not a significant predictor of cooperation with police across both research sites. Minority ethnicity has a negative coefficient for both sites in all models, but was only statistically significant in Brisbane. This lack of significance for minority residents in St Louis County is surprising, given such strong differences by race that have been found in past research in the US. On

closer inspection, posthoc analyses revealed that procedural justice fully mediates the effect of minority status on cooperation.⁵

Prior victimisation (of the respondent, as well as aggregate neighbourhood levels) was not associated with the willingness to cooperate with police in St Louis County, however victimisation rates were related to cooperation with police in Brisbane. A negative association between violent victimisation and cooperation with police in Brisbane is supportive of a withdrawal effect as suggested by *broken windows theory* (Wilson and Kelling 1982). When a higher proportion of people in a suburb experience violent victimisation, residents are less willing to cooperate with police. That is, experiencing higher levels of violence may promote withdrawal such that residents do not even invoke formal social controls and contact police about crime and suspicious behaviours.

[Insert Table 5]

Theoretical Bases

Normative Model

Turning to the three theoretical bases of cooperation, we do find strong support for the normative model in both Brisbane and St Louis County. We find a positive and significant relationship between legitimacy, procedural justice and the willingness to cooperate with police in both contexts in Model 1, although the relative importance of each on cooperation differs across the two contexts. In St Louis County, in Model 1, procedural justice has the strongest association with cooperation with police ($\beta=.441$ versus the next highest beta for

⁵ We ran the St Louis County model with only demographic information (excluding assessments about police procedural justice and legitimacy). What we find is that only 12% of the variance in cooperation is explained by the demographics only model (versus 34% when procedural justice and legitimacy judgments are included). More interestingly though, the relationship between minority status and cooperation is statistically significant ($b= -.098$, $p=.001$) and minority status is the second strongest demographic predictor of cooperation after age. We find in St Louis County that African Americans are less willing to cooperate with the police, but Model 1 shows that this effect is mediated by procedural justice. The implication is that a perceived lack of procedural justice delivered to African Americans explains less cooperative attitudes toward police for this group.

female at $\beta=.130$) and this strong relationship is sustained in Models 2 and 3. Police legitimacy most strongly and consistently predicts cooperation with police across the three models in Brisbane (In Model 1, $\beta=.480$ versus the next highest $\beta=-.087$ for Minority Ethnicity). Procedural justice has a much weaker association with cooperation with police ($\beta=.069$) in Model 1, and the effect of procedural justice on cooperation with police appears to be fully explained by the addition of social cohesion and trust in Model 2. Thus while support for the normative model does not waiver and in fact is the most important predictor of cooperation, the nature of what specifically is important to cooperation—fair and respectful treatment versus perceived valid authority of police—is somewhat different across contexts and is sometimes affected by assessments about the neighbourhood social conditions.

Expressive Model

The expressive model finds support in Brisbane, but not St Louis County. In Brisbane social cohesion and trust becomes the second strongest predictor of cooperation with police (next to police legitimacy) when added in Model 2 ($\beta=.152$). However in St Louis County, social cohesion and trust is not a significant predictor of cooperation with police when added in Model 2, and procedural justice remains the strongest predictor in the model. Thus while the expressive model appears to hold some explanatory power in Brisbane, in both contexts normative concerns take priority (i.e. legitimacy in Brisbane and procedural justice in St Louis County). These results are consistent with prior research that supports the dominance of the normative model (Donner *et al.* 2015; Kochel 2014; Mazerolle, Bennett *et al.* 2013; Mazerolle *et al.* 2014).

Instrumental Model

Also in Model 2, feelings of insecurity were not statistically significant in either context, albeit the coefficients were positive and so in the direction predicted by the instrumental model. Thus it would seem that whether in a high crime or average urban/suburban neighbourhood contexts, residents are not strongly motivated to cooperate with police based on feeling secure or insecure, when we also account for social cohesion and trust and perceptions of police. However, despite the lack of significance for the main effect of feelings of insecurity, in Model 3 we find support for the role of the instrumental model within high crime neighbourhoods. In St Louis County, the interaction between procedural justice and feelings of insecurity is statistically significant and negative ($\beta = -.092$), suggesting that feeling insecure in one's neighbourhood diminishes the effect of procedural justice on residents' willingness to cooperate with police. When residents from high crime contexts feel insecure and fear for their safety, procedural justice becomes less important. See Figure 1. We did not find this same moderating effect among residents in Brisbane neighbourhoods, where crime is less and neighbourhoods are less disadvantaged. In Brisbane, we only find support for the normative and expressive models.

[Insert Figure 1]

Discussion

Procedural justice is often touted as the "silver bullet" for improving police-citizen relations. Procedurally-just policing methods have subsequently become a must-have for modern, democratic police agencies (see for example the Presidential Taskforce on 21st Century Policing 2015). Research and policy discourse suggests that to encourage public cooperation, police should, above all else, exercise procedural justice in their interactions with the public (Mazerolle *et al.* 2013; Mazerolle *et al.* 2014; President's Taskforce on 21st Century Policing 2015). In turn, procedural justice will lead to increased perceptions of police legitimacy and

cooperation. What is less well known, are the conditions under which procedural justice works best, whether or not the procedural justice model is equally effective across all types of social contexts, and how the normative or procedural justice model compares and interplays with the expressive and instrumental models.

In this paper we advance the policing literature in three ways. First, we consider how neighbourhood factors including feelings of insecurity, social cohesion and trust, and the rate of victimisation relate to citizens' willingness to cooperate with police. Second, we examine how feelings of insecurity may impact on the efficacy of the normative model of cooperation with police. Third, we compare and contrast these findings across two very different contexts: a sample of residents living in crime hot spots in St Louis County, Missouri in the US, and a sample of residents living in neighbourhoods in Brisbane, Queensland in Australia.

As previously stated, our findings must be considered in light of the limitations of a comparative design using secondary data analyses, including differences in survey instruments and geographic sizes of the neighbourhoods across contexts. Most notably, there are differences in the way our measures of key concepts are constructed across the two surveys. For example, our measure of legitimacy captures 'respect for police' and 'moral obligation' in Brisbane and 'obedience' in St Louis. While these measures clearly overlap and align with how legitimacy has been measured in past studies, it is possible that our different findings around legitimacy across the two samples may be at least partially explained by these differences (see for example, Reisig *et al.* 2007)⁶. Despite these

⁶ Furthermore, we note that our measure of legitimacy, on face value, has some differences across the two contexts. To explore this point of measurement further we ran parallel post-hoc analyses of the final model using a single-item measure of legitimacy that is comparable across both contexts. The item reflects the moral obligation to obey. We found that substituting this single-item measure produces the same substantive findings as the full latent measure in each sample. The exception is that this less comprehensive (inferior) measure of legitimacy is not statistically significant in the St. Louis County analysis. As the key findings of interest are consistent with the initial analyses, we retained the more reliable multi-item measure of legitimacy in our final models presented in this paper.

limitations, our study does shed light on the way in which the procedural justice, expressive and instrumental models may operate across different contexts.

We find many of the antecedents of cooperation with police are similar across our two research sites including age, gender, education and, to some extent, police legitimacy and procedural justice. Of greatest interest, however, are the differences we uncover. The first key difference concerns the most salient predictors of cooperation with police. In Brisbane we found police legitimacy followed by social cohesion and trust were the most important predictors of the willingness to cooperate with police when compared to the other variables tested. It is not surprising that procedural justice is less important, as prior research in Australia shows that police legitimacy generally mediates the effect of procedural justice on cooperation (Hinds and Murphy 2007; Murphy *et al.* 2008). On the other hand, in St Louis County, procedural justice was the most salient predictor of the willingness to cooperate with police.

In Brisbane, findings are fairly consistent with the normative and expressive models of cooperation with police. Cooperation is primarily achieved through police legitimacy which is conceptualised as mediating the effect of procedural justice on cooperation in Tyler's original work (e.g. Sunshine and Tyler 2003). On the other hand, in St Louis County, procedural justice seems to be the key concern for residents living in these high-crime hot spots, and feelings of procedural injustice appear to explain why African American participants (a large proportion of the respondents) are less likely to indicate a willingness to cooperate with police. Having said this, the salience of procedural justice appears to decline, when residents feel insecure in their neighbourhoods. Differences between the two contexts highlight the relevance of context when attempting to better understand why members of the public are willing or unwilling to cooperate with police, and when thinking about which

models of cooperation with police might best be used to understand why people are willing or unwilling to cooperate with the police.

What might explain these contextual differences? We believe a likely reason is the level of police presence and involvement in the neighbourhood. Specifically, that in Brisbane, contact with police is not common whereas in St Louis County, in these hot spots, police are very visible. A seven-week sample of automated vehicle location (AVL) data in St Louis County reveals that police were spending an average of 2.25 hours each week in each of these small geographic areas. That is a considerable expenditure for places averaging only .01 square miles in size. This documented presence explains why over half of the St Louis County sample reported that they see police in their neighbourhood at least once each day, while more than three quarters reported seeing police at least a few times each week. More than half of St Louis County hotspot residents (56%) reported having personal contact with police in the six months preceding the survey: 31% had been stopped by police while on the streets or driving a car, 22.5% had contacted the police to report a crime, while 18% contacted police about a problem in the area. When police presence is so pervasive and encounters with police common, support for police and cooperation with police might be more strongly associated with what the police do and how they behave than one's diffuse assessments about the validity of police authority.

In Brisbane, in a random sample, where it is likely that police are, on the whole, less visible, support for police and cooperation might be associated with more symbolic concerns about the neighbourhood. While we do not have comparable AVL data in Brisbane, there is some evidence to suggest that residents see police less in the Brisbane suburbs compared to the St Louis County crime hot spots. When asked how often they had experienced personal contact with police in the previous 12 months, 44% of respondents reported that they had no contact with police during this time. Moreover, only 32% of the sample reported having had

any contact with police in the suburb in which they lived. When asked how often they saw police patrolling their suburb, 40% of the sample reported that they rarely or never saw police patrolling on foot, bike or in a car. In Brisbane, residents' assessments of police are more remote, and may be reflected by perceptions of the neighbourhood, as portrayed by the expressive model. In this context, the willingness to cooperate with police appears to be associated with expressive factors including social cohesion and trust, in addition to normative factors. As Jackson *et al.* (2009, p. 101) explain:

A more 'expressive' model stands in contrast to the instrumental model, holding that confidence in policing is rooted not in fear of crime, nor in perceptions of risk, but in more symbolic yet 'day-to-day' concerns about neighbourhood cohesion and collective efficacy.

The second difference of note is the results of the interaction term. We find that feelings of insecurity do not seem to have any effect in Brisbane. However, in St Louis County, feelings of insecurity moderate the relationship between procedural justice and the willingness to cooperate with police. These results are consistent with the insecurity model we posed earlier. We suggest that in places where there is a higher rate of crime and citizens feel insecure, procedural justice will matter less (albeit only slightly less) for predicting the willingness to cooperate with police. We position these findings as a function of threat. When under threat (i.e. when feelings of insecurity are high), cooperation with police may be motivated less by expressive and normative factors. This links back to Rosenbaum's thesis. Rosenbaum (1993) suggests that civil rights and issues of procedural justice may take a back seat to more pressing immediate threats to safety. Indeed these results are similar to those found by Tankebe (2009) in his Ghana study. In a high crime context (even within a developed nation) where threats to personal safety are a likely actuality, feelings of insecurity diminish procedural justice concerns as the motive for cooperation with police. These

findings suggest that greater consideration of neighbourhood and cultural context can help us to understand which models best explain cooperation with police.

Policy Implications and Conclusion

In this study we find public views about police matter a great deal for explaining residents' willingness to cooperate with police, but that police are not viewed in isolation. How residents perceive their neighbourhood context—its level of social cohesion and trust and the criminogenic context—matter. In the average neighbourhood with evidence of social cohesion and trust and minimal violence, police can expect cooperation because residents view police as a reflection of the neighbourhood—a good neighbourhood equates to good police (Jackson *et al.* 2009). They can further promote cooperation by focusing on improving police legitimacy by sustaining an image of the police that is lawful, moral and fair.

So what can police do in areas where citizens feel under threat, where they feel insecure about their own safety? We are not suggesting that procedural justice no longer matters in these places. In fact, if police spend considerable time in high crime places, how they treat people is a large part of what will determine cooperation. Furthermore, as we observe in posthoc analyses in St Louis County, it may well be that a lack of perceived procedural justice explains a reduced willingness of African American residents and other minorities to cooperate with police. Our findings strongly demonstrate people still need fair procedures and fair decision-making from police. Yet, importantly, in some places more than others, people also need police to make them *feel* secure.

Therefore, in attempting to maximise public cooperation and support, police may need to focus their efforts somewhat differently, depending on how residents of an area perceive their social context. Clearly one approach that may promote stronger feelings of security among residents is effectively reducing the risk of victimisation in the community by

preventing crime. One challenge, however, is that police assessments about crime-ridden areas may lead to resignation of the area as a bad area about which little can be done. This attitude by police can affect the level and nature of services police deliver to the neighbourhood, which sustains the area's vulnerability to crime (Innes and Jones 2006). However, recently, numerous evidenced-based approaches such as problem oriented policing, hot spots policing, and focused deterrence have demonstrated effectiveness against crime (Braga 2015; Braga *et al.* 2014; Weisburd *et al.* 2010). Of course, the challenge is to implement effective crime fighting strategies that do not backfire and harm perceptions of police legitimacy and procedural justice (see Kochel 2011; Weisburd *et al.* 2011).

Additionally, because crime problems tend to persist in at-risk places, police may concurrently endeavor to promote subjective feelings of security on top of implementing crime prevention approaches. Clearly our results support that “perceptions do have material consequences” (Innes and Jones 2006, p.16). Sometimes what police do can amplify feelings of insecurity, but they may also be able to promote recovery and resilience in a neighbourhood. Innes (2004; Innes and Fielding 2002) and Innes and Jones (2006) offer some solutions for police to utilise in places with high crime and high levels of insecurity. Their research suggests that feelings of insecurity can be triggered by “signal crimes” and disorder. These are conditions in the neighbourhood that residents interpret as indicating threat or potential threats in a neighbourhood, and so their presence reinforces/increases feelings of insecurity. The conditions that resonate as signals differ across neighbourhoods and can include for example: graffiti or vandalism, neighbourhood drugs sales and/or community tension and segregation.

To reduce subjective insecurity, Innes and colleagues (2004; Innes and Fielding 2002; Innes and Jones 2006) advocate for reassurance policing. Reassurance policing involves three elements: 1) increasing objective security, 2) targeting signal crimes and disorders while also

implementing control signals, and 3) strengthening informal social control. A key component is tailoring strategies to the neighbourhood. While foot patrol may promote feelings of security and order in one neighbourhood, an increase in police presence may promote fear in another. Control signals can be behavioral controls implemented by police, residents, or others (e.g., place managers) who can increase natural surveillance, or they can be environmental controls such as target hardening or maintenance in an area. Given the importance of understanding the signals specific to a neighbourhood, engaging residents in discussion about their concerns and priorities and involving them in the coproduction of solutions is an important tool to promote a sense of order and security. Taken together with our key findings, we conclude that by recognising the importance of neighbourhood context, in addition to promoting procedural justice and legitimacy, police have a greater chance of fostering cooperation.

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Table 1 Site Comparison

	Brisbane	St Louis County
Location	Capital city of the state of Queensland and surrounds	Midwestern county in Missouri
Land area	612.3 square miles	507.8 square miles
Population	2,065,996	1,001,876
Population density	3,374.2 per square mile	1,967.2 per square mile
Ancestry/race	27.3% English 25.7% Australian 8.6% Irish 7.2% Scottish 4.4% German	70.3% Caucasian 23.7% African American 3.8% Asian 2.7% Hispanic or Latino
Number of households	732,494	403,293
Household income	Above national median	Above national average
Home ownership rate	64.1%	71.0%
Police department	Queensland Police Service	St Louis County Police

Table 2 Sample Comparison

	Brisbane	St Louis County
	Mean(SD) or %	Mean(SD) or %
Age	51.26 (15.22)	37.87 (15.53)
Female	59%	59%
Minority status	10%	77%
Home ownership	87%	21%
Victimisation (Violent)	3%	6%
Victimisation (Property)	14%	17%
Lived at address 5 years or less	23%	71%
Education (Less than high school)	23%	9%
Education (High school)	22%	31%

Table 3 Construction of Latent Variables

	Brisbane (n=4403)	St Louis County (n=985)
Cooperation with Police	4 indicators (Original Scale: 1-5)	2 indicators (Original Scale: 1-4)
	If the situation arose, how likely would you be to call police to report a crime?	How likely are you to report a crime/ dangerous or suspicious activities in the area to the police.
	If the situation arose, how likely would you be to help police find someone suspected of committing a crime by providing them with information?	When you have information that may help solve a crime, how likely are you to call and give police the information.
	If the situation arose, how likely would you be to report dangerous or suspicious activities to police?	
	If the situation arose, how likely would you be to willingly assist police if asked?	
Social Cohesion and Trust	4 indicators (Original Scale: 1-5)	4 indicators (Original Scale: 1-4)
	Level of agreement: People in this community are willing to help their neighbours.	Level of agreement: People in this area are willing to help each other.
	Level of agreement: This is a close-knit community.	Level of agreement: The people in this area are a close-knit community.
	Level of agreement: People in this community can be trusted.	Level of agreement: People in this area get together or interact with one another.
	Level of agreement: People in this community do not share the same values (reverse coded).	Level of agreement: People in this area share the same values.
Procedural Justice	3 indicators (Original Scale: 1-5)	3 indicators (Original Scale: 1-4)
	Level of agreement: Police treat people fairly.	Level of agreement: Area police address citizens in a respectful manner and appropriate tone.

	Level of agreement: Police treat people with dignity and respect.	Level of agreement: Area police treat people fairly.
	Level of agreement: Police listen to people before making decisions.	Level of agreement: Area police take the time to listen to people.
Police Legitimacy	2 indicators (Original Scale: 1-4)	3 indicators (Original Scale: 1-4)
	Level of agreement: Respect for police is an important value for people to have.	Level of agreement: You should do what the police tell you to even if you disagree.
	Level of agreement: I feel a moral obligation to obey the police	Level of agreement: I feel that I should accept decisions made by area police, even if I do not understand the reasons for their decisions.
		Level of agreement: You should obey police directives because that is the proper or right thing to do.
Model Fit	CFI=.987, TLI=.983, RMSEA=.03	CFI=.981, TLI=.973, RMSEA=.04

Table 4 Descriptive Statistics – POMP Scores

	Brisbane		St Louis County	
	N	Mean(SD)	N	Mean(SD)
Cooperation	4401	86.86(13.00)	980	83.20(26.01)
Legitimacy	4399	78.52(12.56)	986	68.70(26.89)
Procedural justice	4391	70.67(16.64)	987	61.15(30.92)
Social cohesion and trust	4403	70.32(18.66)	975	52.64(30.55)
Feelings of insecurity	4401	31.45(27.52)	976	47.70(38.75)

Table 5 OLS Regression Analyses for Brisbane (n=4194) and St Louis County (n=977) Predicting Willingness to Cooperate with Police

	Model 1						Model 2						Model 3					
	Brisbane			St Louis County			Brisbane			St Louis County			Brisbane			St Louis County		
	B(SE)		β	b(SE)		β	b(SE)		β	b(SE)		β	b(SE)		β	b(SE)		β
Intercept	-.048 (.029)			-.105 (.062)			-.051 (.029)			-.108 (.062)			-.052 (.029)			-.114 (.062)		
Age	.001 (.000)	**	.036	.003 (.001)	***	.115	.001 (.000)	*	.030	.003 (.001)	***	.112	.001 (.000)	*	.030	.003 (.001)	***	.116
Gender	.035 (.011)	***	.042	.118 (.024)	***	.130	.025 (.011)	*	.030	.105 (.026)	***	.115	.025 (.011)	*	.030	.099 (.026)	***	.109
Minority Ethnicity	-.119 (.018)	***	-.087	-.026 (.029)		-.025	-.118 (.018)	***	-.087	-.026 (.029)		-.025	-.118 (.018)	***	-.087	-.025 (.029)		-.024
Owns Home	.036 (.017)	*	.030	.014 (.035)		.013	.028 (.017)		.023	.011 (.035)		.010	.029 (.017)		.023	.011 (.035)		.010
Victim of Violence in the last 12 months	-.003 (.034)		-.001	.011 (.054)		.006	.007 (.033)		.003	.011 (.054)		.006	.007 (.033)		.003	.002 (.054)		.001
Victim of Property Crime in the last 12 months	-.009 (.016)		-.008	.035 (.035)		.029	.000 (.016)		.000	.033 (.035)		.028	.000 (.016)		.000	.035 (.035)		.029
Lived at Current Address 5 Years or Less	.000 (.014)		.000	-.043 (.032)		-.044	.005 (.013)		.005	-.043 (.032)		-.044	.005 (.013)		.005	-.041 (.032)		-.042
Aggregate Violent Crime	-5.618 (1.961)	**	-.039	.002 (.011)		.004	-4.514 (1.949)	*	-.031	.001 (.011)		.004	-4.498 (1.949)	*	-.031	.001 (.011)		.004
Aggregate Property Crime	.244 (.877)		.004	-.001 (.008)		-.004	1.368 (.874)		.021	-.002 (.008)		-.007	1.361 (.874)			-.001 (.008)		-.005

Education Below High School	-.068 (.014)	***	-.070	-.155 (.041)	***	-.101	-.063 (.013)	***	-.065	-.158 (.041)	***	-.103	-.063 (.013)	***	-.065	-.156 (.041)	***	-.102
Education High School	-.059 (.013)	***	-.060	-.100 (.026)	***	-.104	-.054 (.013)	***	-.055	-.100 (.026)	***	-.104	-.054 (.013)	***	-.055	-.102 (.026)	***	-.106
Procedural Justice	.051 (.012)	***	.069	.249 (.019)	***	.441	.023 (.012)		.030	.251 (.020)	***	.444	.029 (.013)	*	.039	.287 (.024)	***	.507
Police Legitimacy	.568 (.019)	***	.480	.058 (.023)	*	.085	.557 (.019)	***	.470	.056 (.023)	*	.083	.556 (.019)	***	.469	.053 (.023)	*	.078
Feelings of Insecurity							.021 (.014)		.020	.040 (.026)		.044	.019 (.014)		.019	.042 (.026)		.046
Social Cohesion and Trust							.116 (.011)	***	.152	.005 (.016)		.009	.116 (.011)	***	.152	.007 (.016)		.013
Feelings of Insecurity*Procedural Justice													-.025 (.023)		-.016	-.078 (.030)	**	-.092
R Squared	.305			.349			.323			.350			.323			.355		
Adjusted R Squared	.303			.340			.321			.340			.321			.344		
F(df)	141.04(13)***			39.54(13)***			132.98(15)***			34.44(15)***			124.76(16)***			32.90(16)***		

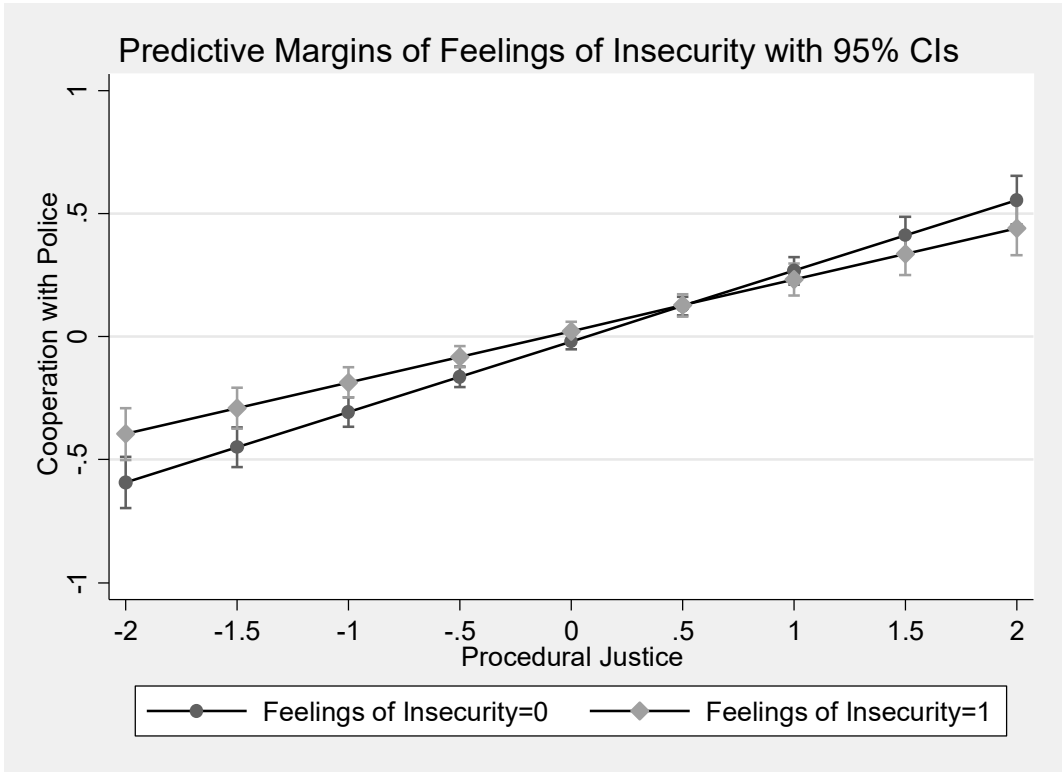


Figure 1. St Louis County Procedural Justice x Feelings of Insecurity Interaction