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Witness Participation in the Criminal Justice System: Perceptions of the Legitimacy of Police and the Reporting of Crime

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For my grandmother, Frances, my second mother, Wainett, and my dear friend, Louie. You started this journey with me, but were not able to see the end of it. I carry your love, strength, and words of wisdom with me always.

ABSTRACT OF THE DISSERTATION

Witness Participation in the Criminal Justice System: Perceptions of the Legitimacy of Police and the Reporting of Crime

by

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Witnesses and victims often choose not to report crimes to police. Previous research suggests that decisions to report and participate in the criminal justice process are the product of a complex, multi-determined confluence of cognitive, social, and cultural factors. The focus of this dissertation was to examine the relationship between attitudes regarding the legitimacy of police, expressed willingness to report crimes, and actual crime reporting. Study 1, conducted with 309 undergraduate students, was designed to assess whether the relationship between perceptions of legitimacy and expressed willingness to report varied depending on the specific crime conditions. The results showed that when presented with broad, hypothetical questions that do not specify the crime conditions (i.e., the typical method used in willingness studies), individuals imagine their own crime scenarios. Willingness to report varied depending on the specific conditions imagined and based on explicitly defined features of the crime. The legitimacy-willingness relationship was robust, regardless of whether respondents

imagined the crime features or they were explicitly provided with them. Study 2 assessed attitudes about the legitimacy of police and crime reporting behavior among 75 undergraduates who had either been a witness or victim of a serious crime within the previous two years. Attitudes about the legitimacy of the police were strongly associated with respondents' expressed willingness to report crimes to the police, but were not associated with actual crime reporting behavior. Expressed willingness was strongly associated with actual crime reporting. The results underscore the importance of social factors associated with actual reporting. Specifically, victims and witnesses were less likely to report crimes when: (a) they were committed by perpetrators they knew; (b) they perceived the crime as not serious; (c) they did not fear retaliation; (d) they feared being labeled a "snitch;" (e) they did not talk to a parent or co-witness after the crime occurred; and, (f) they did not perceive crime reporting as a moral duty. Implications for process-based theories of control, police practice and procedure, and future research are discussed.

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CHAPTER 1: WITNESS PARTICIPATION

The criminal justice system depends on the active and willing participation of eyewitnesses and victims of crime. A 1975 RAND study of criminal investigations showed that in almost half of the cleared cases in their sample witnesses and victims provided identifying information, identified suspects from mugshots or lineups, or in some cases detained suspects until police arrived (Greenwood, Chaiken, Petersilia, & Prusoff, 1975, see Tables 6-4 and 6-3: pp. 68,70). A study by Wellford and Cronin (1999) reported that in 47.7% of homicide cases, police viewed eyewitness identification as the most significant factor in solving the case. Witness participation continues to be important throughout the investigation and prosecution. Phillips and Brown (1998) analyzed arrest rates at 10 police stations in the United Kingdom and found that that the victim was the main source of evidence in violent crime cases. A study of the San Diego County District Attorney's Office showed that charges were more likely to be filed when there was a positive eyewitness identification than when there was not (Flowe, Mehta, & Ebbesen, 2011)[1], and a Washington D.C. study showed that cases that were perceived to

[1] This assessment of the results may appear at odds with that of the authors. Flowe et al. (2011) reported a significantly higher ($p < .05$) filing rate for cases in which there was an identification (compared to when there was not an identification) and the perpetrator was known to the witness but only a marginally higher ($p = .07$) filing rate for cases in which there was an identification and perpetrator was unknown to the witness. However, their statistical conclusions may be tied to the use of the overly-conservative (Camilli & Hopkins, 1978, 1979; Ruxton & Neuhäuser, 2010) Yates correction. Without the Yates "correction," Flowe et al.'s filing rates were significantly higher when there was an identification compared to when there was not an identification, for both known perpetrators, $\chi^2(1, n = 488) = 7.18$, $p = .007$, $r = .121$, and unknown perpetrators ($\chi^2(1, n = 237) = 3.729$, $p = .053$, $r = .125$).

have potential witness cooperation problems were more likely to be dismissed or nol-processed (Cannavale, 1976).

The Cannavale study highlights the other side of witness participation, namely that witnesses and victims often choose not to participate in the criminal justice process. Although reporting rates have increased significantly from the mid-1980's (Baumer & Lauritsen, 2010), the National Crime Victimization Survey (NCVS)[2] has consistently found that less than half of all serious crimes (i.e., assaults, robberies, and burglaries, for example) are reported to police (Hart & Rennison, 2003; Rand & Catalano, 2007; Truman & Rand, 2010; Truman & Langton, 2014). Other studies assessing reporting rates for violent crimes (i.e., assault, rape, personal theft) are consistent with findings from the NCVS (Block, 1974; Skogan, 1976; Tarling & Morris, 2010).

Why do witnesses choose not to report crimes to the police and participate in the criminal justice process? The extant literature shows that citizens' decisions to report crime and participate in the criminal justice process are not determined by a single factor, but rather are the product of a complex, multi-determined confluence of cognitive, social, and cultural factors. Decisions to report may also involve a cost-benefit analysis, weighing of the relative risks of reporting against the benefits (Greenberg and Beach, 2004; Skogan, 1984). For instance, witnesses need to weigh the benefits of a positive outcome, such an arrest or recovering property, against the possible costs, such as the

[2] The NCVS does not assess reporting rates for homicides given that the participants in these studies are all victims (not witnesses) and victims of homicides cannot report their own murder after it has occurred.

level of inconvenience and possibility of retaliation. If the perceived costs outweigh the potential benefits then a witness may choose to not report the crime to police. A review of the research on factors that witnesses consider when making crime reporting decisions is discussed next.

Crime Seriousness

Crime seriousness has consistently been found to be one of the best predictors of crime reporting (Goudriaan, Lynch, & Nieuwbeerta, 2004; Skogan, 1984). Previous empirical evidence shows that witnesses are less likely to report crimes when they perceive the crime as not serious (Avakame, Fyfe, & McCoy, 1999; Bowles, Reyes, & Garoupa, 2009; Goudriaan et al., 2004; Skogan, 1984). For instance, data from the NCVS has revealed that one of the most commonly cited reasons victims of violent crimes provide for not notifying police is that the offense was not perceived "important enough" (Hart & Rennison, 2003; Langton, Berzofsky, Krebs, & Smiley-McDonald, 2012).

A number of factors influence the perception of crime severity, including the type of the crime, the level of injury experienced by the victim, the presence of a weapon, and the amount of financial loss. Specifically, violent crimes are more likely to be reported to police than property crimes (Langton et al., 2012). Completed crimes are also more likely to be reported than attempted crimes (Hart & Rennison, 2003; Skogan, 1984). Victimizations against women are more likely to be reported than those against men (Hart & Rennison, 2003). Additionally, crimes that involve *any* injury to the victim are more likely to be reported than those in which the victim was not injured (Hart &

Rennison, 2003). The more severe the injury the more likely it is to be reported. For instance, violent victimizations that occurred between 2006 and 2010 in the United States were more likely to be reported when the victim's injuries were more serious (i.e., gunshot or stab wound, broken bones, internal injuries, or unconsciousness) than when they were more minor (i.e., bruises, scratches, and black eyes) (Langton et al., 2012; see also Schnebly, 2008). Victims who require medical care are more likely to report crimes to police than those whose injuries were not severe enough to require such assistance (Avakame et al., 1999). Violent crimes committed by perpetrators armed with a weapon are also more likely to be reported to the police than violent crimes committed without a weapon (Hart & Rennison, 2003; Schnebly, 2008). Victims also consider the amount of financial loss sustained as a result of the crime when deciding whether to report the offense to police (Bowles et al., 2009; Goudriaan et al., 2004). Greenberg and Beach (2004), for example, found that property crime victims whose financial loss was greater were more likely to report the offense than those whose monetary damages were not as severe.

Witness Intimidation

Witnesses and victims are less likely to report crimes to police when they feel intimidated or fear retaliation (Dedel, 2006; Hart & Rennison, 2003; Singer, 1988; Whitman & Davis, 2007). Some individuals are at greater risk for witness intimidation than others, including women, those who have a prior relationship with the offender (discussed more below), and those who live geographically close to the perpetrator (Dedel, 2006). Recent or illegal immigrants may also be at increased risk as they may

fear deportation for themselves or their family members (Davis & Henderson, 2003). In addition, they may not yet be fully knowledgeable about the role of police in their new culture (Dedel, 2006).

Fear of reprisal (e.g., "Someone might hurt me for telling the police"), threats of reprisal (e.g., "Someone told me that they'd hurt me if I told the police"), and actual reprisal (e.g., "Someone actually hurt me for talking to the police") have not been clearly disentangled in the previous literature. There is some evidence to suggest that witnesses and victims tend to hear more about threats against others than they are to be threatened themselves. A study by Whitman and Davis (2007), for instance, asked 12- to 19-year olds about their experiences with gang-related crime and found that 38% of adolescent witnesses had heard about a threat against a schoolmate, 28% had heard of a threat against a neighbor, and 12% had personally received a threat. Hearing about others' experiences with intimidation may contribute to a cultural norm of non-participation within a community. Taken together, however, the extant literature suggests that fear of retaliation – even without an actual act or threat of retaliation – can influence the decision to report to police (Hart & Rennison, 2003; Langton et al., 2012).

Victim-Offender Relationship

Witnesses and victims who know or have a prior relationship with the perpetrator are less likely to report the crime to police (Block, 1974; Singer, 1988; Hart & Rennison, 2003). This may be due to fear of retaliation – and in some cases, an increased risk of further victimization – or a desire to protect the perpetrator from arrest and prosecution (Truman, Langton, & Planty, 2013). Black (1976) proposed that citizens rely more on

the criminal justice system for conflict resolution as the relational distance between the victim and offender increases. The closer the relational distance between the victim and offender, the more likely that attempts will be made to resolve conflicts informally and without police intervention.

Criminal Involvement

Witnesses may choose not to report crimes to police if they wish to conceal their own illegal activities or their involvement in the crime (Block, 1974; Brank, Woolard, Brown, Fondacaro, & Luescher, 2007; Skogan, 1984). Dedel (2006) argued that individuals who have prior criminal records, active warrants, or are on parole may also be particularly reluctant to contact the police. In these cases, witnesses may fear self-incrimination and may choose to not report crimes to avoid police accusation.

Discussion with Others

Many witnesses talk to other people besides the police about their victimization and witnessing experiences. Pitts and Schwartz (1993), for example, reported that over 75% of rape victims told someone, often a female friend, about their victimization. Similarly, Fisher, Daigle, Cullen, & Turner (2003) reported that 70 % of rape victims told someone, and again that person was most often a friend. Additionally, when a crime is experienced by multiple witnesses, those individuals often talk to each other. Patterson and Kemp (2006) reported that 86% of witnesses indicated that they had discussed the crime with others who had also viewed the crime. In contrast, Whitman and Davis (2007) found that many adolescents not only do not report gang-related crimes to the police, they do not discuss them with anyone. Forty-six percent of victims and 54% of

witnesses in the Whitman and Davis study said they did not talk to *anyone* about the crimes they witnessed.

Individuals who have experienced stressful and traumatic experiences may feel a strong emotional need to discuss the event with others (Harber & Cohen, 2005). The act of expression may serve as an emotional outlet for stress, and provide a means for coping with and processing the trauma (Kennedy-Moore & Watson, 2001; Pennebaker, 1997; Smyth & Pennebaker, 1999). While discussing the crime with others, witnesses may receive advice about whether or not to report crimes to police (Greenberg, Ruback, & Westcott, 1982).

Witnesses and victims are less likely to report crimes to police when they are advised or discouraged from participating by family members or friends (Greenberg, Wilson, Ruback, & Mills, 1979). Greenberg and Beach (2004), for instance, found that among a variety of cognitive, social, and emotional factors, the decision to report was most strongly predicted by whether victims of property crimes had been advised to do so. Specifically, victims were 12 times more likely to report the crime to police when they had been advised to report.

Previous Exposure to Violence

Citizens living in socioeconomically disadvantaged neighborhoods tend to witness more violent crime, such as homicides and stabbings, than individuals who live in middle- or higher-income neighborhoods (Buka, Stichick, Birdthistle, & Earls, 2001). Witnesses from disadvantaged neighborhoods, who are exposed to more violence, are also less likely to report crimes to police (Goudriaan, Wittebrood, & Nieuwbeerta, 2006).

Previous studies tend to focus on how socioeconomic disadvantage influences reporting, but do not directly examine the association between exposure to violence and reporting.

However, prior exposure to violence may have a direct influence on reporting behavior. Repeated exposure may lead to desensitization toward violence wherein individuals may no longer perceive certain criminal actions as distinctive or disturbing. Recent evidence shows that individuals who have been exposed to more violence in their lifetimes (e.g., hearing gunshots, witnessing assaults) are less likely to perceive subsequent violence as disturbing and are, in turn, less likely to state that they would disclose information about witnessing a violent crime to family and friends (Harber, Podolski, & Dyer, 2014). Desensitization following repeated exposure to violence may also lower the probability of disclosing the crime to police, more specifically.

Presence of Other Witnesses

Assessing the behavior of bystanders is important given that approximately two-thirds of all violent crime victimizations are witnessed by at least one other person besides the victim(s) and perpetrator(s) (Planty, 2002). The bystander effect, the phenomenon that individuals are less likely to provide help someone in need when other bystanders are present, is a well-documented finding in social psychology (Darley & Latané, 1968; Doris, 2002; Fischer et al., 2011; Latané & Nida, 1981). An implication of this research is that citizens may be less likely to report crimes to police when they witness the crime in the presence of others as compared to when they witness the crime alone.

Latané and Darley (1970) proposed three psychological processes that decrease the likelihood of assistance when witnessing in the presence of others. First, *diffusion of responsibility* suggests that the more witnesses that are present at the incident, any single individual will feel less responsibility to help. For instance, a witness who views the crime in the presence of others may feel less responsibility to be the person who notifies the police or may decide that others will report the crime if they do not. Second, *evaluation apprehension* refers to the idea that witnesses fear being judged by others in the group by making the wrong decision. Third, *pluralistic ignorance* suggests that witnesses observe and evaluate others' reactions, particularly in ambiguous situations, in an attempt to figure out how to react themselves. They may choose not to intervene, even if they believe it is the right thing to do, if they observe others also not being of assistance.

Recent data from the NCVS suggests that the presence of at least one third-party bystander may increase the likelihood that violent victimizations are reported to police (Planty, 2002). For instance, violent victimizations that occurred between 1993 and 1999 were significantly more likely to be reported to police when the crime was witnessed by at least one third party bystander (44%) than when there was a lone victim (41%). The data seem to provide preliminary evidence that the bystander effect may not generalize to situations where a crime reporting decision must be made. However, the NCVS did not collect data about the number of bystanders present. Thus, it is not clear whether the likelihood of a reporting varied as a function of bystander size. Additionally, the statistically significant difference between 41% and 44% should be interpreted with

caution given that the sample size was very large as result of data being collected from a national survey across seven years. The result is statistically significant, but the size of the effect is very small.

Cultural and Social Norms against "Snitching"

Witnesses and victims may choose not to report crimes to police if they subscribe to social norms against "snitching" or even talking to the police (Åkerström, 1988; Jacobs & Wright, 2006; Rosenfeld, Jacobs, & Wright, 2003; Whitman & Davis, 2007). "Stop Snitching" codes ("snitches get stitches") are driven by a mistrust of police and beliefs that conflict is better settled informally without police intervention (Rosenfeld et al., 2003; Woldoff & Weiss, 2010). These norms also blur the distinction between reporting crime to the police and being a snitch, i.e., a street criminal who cooperates with the police in exchange for criminal justice system favors (Natapoff, 2009). According to the "Stop Snitching" code, *anyone* who cooperates with the police, under any circumstances, for any reason, is viewed as a snitch and traitor. Talking to the police can be viewed as a betrayal of in-group trust in which the norm that "what happens in the group should stay in the group" is violated (Åkerström, 1989; Asbury, 2010; Woldoff & Weiss, 2010). Some citizens are also likely to view this perceived treachery as a moral issue. For instance, adolescent males with a history of delinquency are more likely to view "snitching" as morally wrong compared with non-delinquent adolescent males (Stein, Sarbin, Chu, & Kulik, 1967).

Violation of cultural or community norms that encourage non-participation with authority figures can lead to negative consequences, such as being labeled as a "snitch"

or “rat,” social isolation, and an increased risk of witness intimidation (Grieger, Kauffman, & Grieger, 1976; Natapoff, 2009; Sheehan, 1978). Fear of being labeled a “snitch” can increase reluctance to report crimes to police. Indeed, urban youth cite fear of being labeled as a “snitch” as a primary reason for why they and their peers do not report gang crimes to police (Whitman and Davis, 2007).

Developmental Considerations

Juveniles are less likely to report violent crimes to the police than adults (Finkelhor & Ormrod, 1999; Hart & Rennison, 2003; Watkins, 2005). However, adolescents between the ages of 12 and 17 are more likely to experience both fatal and non-fatal victimization than other age groups (Klaus & Rennison, 2000). Thus, the age group that has the highest probability of being victimized is also the one that is least likely to report crimes to police.

Adolescence is a period of transformation when juveniles strive to become self-reliant and seek autonomy from their parents (Finkelhor & Wolak, 2003). One of the reasons that adolescents do not report bullying to school authorities is because they do not want their parents to intervene (DeLara, 2012). The social costs of reporting transgressions to authority figures may also significantly increase during middle childhood and adolescence, given that peer relationships become particularly salient during this developmental time period. Scheidlinger (2003, p. 245) suggested that “the adolescent peer group contains important normative forces that foster change and growth, as well as some noxious elements, among them a silent conspiracy against ‘tattling’ to

adults." The potential for peer rejection decreases adolescents' willingness to report crimes to police (Brank et al., 2007).

Juveniles' reluctance to report crimes to the police may be driven, in part, by negative attitudes about and interactions with the police (Carr, Napolitano, & Keating, 2007). In general, adolescents tend to view the police less favorably than adults (Hurst & Frank, 2000; Taylor, Turner, Esbensen, & Winfree Jr., 2001). Fagan and Tyler (2005) found, for instance, that during adolescence legal cynicism increases while moral engagement and the perceived legitimacy of police decrease. Lower legitimacy evaluations regarding the police were also associated with higher self-reported delinquency involvement.

Attitudes about the Police and Legal Authorities

Witnesses of any age group may be less likely to participate in the criminal justice process if they hold negative attitudes towards the police. Specifically, they may be reluctant to report crimes if they mistrust the police or do not view the police as legitimate legal authorities (Kochel, Parks, & Mastrofski, 2013; Sunshine & Tyler, 2003a; Tyler & Fagan, 2008). Past research shows, for instance, that ethnic minorities (particularly African Americans) tend to view the police less favorably and be more distrustful of legal authorities than Caucasians (Hurst, Frank, & Browning, 2000; Huo & Tyler, 2000; Reisig & Parks, 2000; Tyler, 2005; Schuck, Rosenbaum, & Hawkins,

2008).[3] These results are perhaps unsurprising given that minorities are disproportionately more likely to be targets of police use of force (Holmes, 2000; Walker, Spohn, & DeLone, 2007). The specific relation between perceptions of legitimacy and crime reporting is explored in depth in the next chapter.

Summary

In summary, the decision to participate in the criminal justice process is a complex and multi-determined product of instrumental, social, and emotional considerations. Specifically, witnesses may choose not to report crimes if: (a) they perceive the crime as not serious; (b) they feel intimidated or fear retaliation; (c) they know the perpetrator of the crime; (d) they wish to conceal their own illegal activities or their involvement in the crime; (e) they are advised or discouraged from participating by family members or friends; (f) they are desensitized to violence after repeated exposure; (g) they witness the crime with others; (h) they subscribe to social norms against "snitching" or even talking to the police; (g) they are younger in age; or (h) they do not view the police as legitimate legal authorities.

[3] Past research shows the greatest variation in attitudes about the police between African Americas and Caucasians (Cheurprakobkit, 2000; Schuck et al., 2008). The limited research that is available regarding Hispanics suggests that they view the police less favorably than Caucasians, but more favorably than African Americans (Cheurprakobkit, 2000; Lasley, 1994).

CHAPTER 2: PERCEPTIONS OF LEGITIMACY AND CRIME REPORTING

The focus of this dissertation is on the relationship between perceptions of police legitimacy and the reporting of crime. This relationship is considered within the framework of a process-based theory of policing and social control developed by Tyler and colleagues (Lind & Tyler, 1988; Tyler, 1990; Tyler & Huo, 2002; Tyler, 2003). The theory is both simple and elegant. It makes two fundamental claims: (1) Citizens will cooperate with legal authorities and comply with legal directives to the extent that they believe the authorities to be legitimate. (2) Beliefs regarding the legitimacy of legal authorities are shaped in large part by one's personal interactions with those legal authorities. During these personal interactions with legal authorities, citizens form impressions and judgments about procedural justice – that is, the quality of police decision making (i.e., basing decisions on facts and applying rules consistently) and interpersonal treatment (i.e., respect, politeness, and consideration of all views involved). These procedural justice judgments are proposed to be the primary antecedent and key factor in shaping perceptions of police legitimacy. According to the theory, individuals who view the police as more fair and respectful in these previous interactions should be more likely to perceive the police as legitimate, which in turn should increase the likelihood of complying with police directives. Judgments about the legitimacy of the police are proposed to play a larger role in influencing legal compliance and decision acceptance than beliefs about police effectiveness or distributive justice (i.e., perceptions regarding the fairness of police distribution of services across social and demographic groups). This model of citizen-police interactions is consistent with the broader efforts

toward Community Oriented Policing Services (Schnebly, 2008).

The empirical support for the link between citizens' attitudes toward the police and the reporting of crime is mixed. Several studies have reported a positive relationship between perceived legitimacy of the police and a general *willingness* to report crimes to police. General willingness to report crime is most often assessed using hypothetical questions such as, "If the situation arose, how likely would you be to call the police to report a crime?" Responses to such questions, measured on a four-point scale, have been shown to be higher for participants who also respond with higher values on questions about police legitimacy. The initial study that showed this relationship, by Sunshine and Tyler (2003a), has been replicated several times, in the U.S. (Reisig, Bratton, & Gertz, 2007; Tyler & Fagan, 2008), in the U.K. (Tankebe, 2013), in Australia (Murphy & Cherney, 2012; Murphy, Hinds, & Fleming, 2008), and in Ghana (Tankebe, 2009), and partially replicated (with different measures of reporting crime) in Slovenia (Reisig, Tankebe, & Meško, 2012). Reisig and Lloyd (2009) also reported a positive, although statistically non-significant, association between legitimacy and willingness to report crime among adolescents in Jamaica.

Based on their own results Tyler and Fagan (2008) concluded that, "members of the public who evaluated the police as more legitimate were more cooperative with the police. They were cooperative first because they helped the police by reporting crime and criminals and second because they worked with others in their community to fight crime...Hence, attitudes are influencing later actions" (Tyler & Fagan, 2008, p. 252). Others have drawn similar conclusions: Murphy and Cherney (2012) concluded that

"cooperation levels among those respondents who view the law as legitimate, particularly for the non-minority group, were high," (p.195). Based on their results Reisig et al. (2012) concluded that in general, "procedural justice is a strong correlate of police legitimacy, and that the latter influences public cooperation" (p. 147).

However, there were no measures in these studies to assess what participants *actually* did, but rather only what they said they would do in response to general hypothetical questions. Tyler and Fagan (2008) were keenly aware of this limitation, noting that, "…our scenarios about cooperation are hypothetical. Because situations vary, respondents could not be asked if they engaged in behavior" (p. 266).

Research on the *actual* behavior of reporting crime to the police paints a very different picture from the research based on expressions of *willingness* to report crime. Several studies have shown little or no relationship between citizens' attitudes toward the police and their actual reporting of crime (Hawkins, 1973; Goudriaan et al., 2006; Kääriäinen & Sirén, 2011; see Skogan, 1984 for a review). Other studies have reported statistically significant, but small, relationships (Bennett & Wiegand, 1994; Kochel et al., 2013).

One might assume, based on the conclusions of some of studies, that there is a strong relationship between one's expressed willingness and the actual behavior of reporting crime (see Tyler & Fagan, 2008). This assumption has some support from the broader literature on the intention-behavior relationship. For example, a meta-analysis of studies that have assessed the relationship between intentions and actions shows correlations in the range between .40 and .62 (Sheeran, 2002). Although some might

interpret these correlations as a glass half full, effect sizes of this large magnitude are quite rare (Rosenthal & Rosnow, 2008, Table 11.8, pp. 325-326) and provide clear evidence that intentions are indeed strong predictors of future behavior (Ajzen, 1991). Nonetheless, the intention-behavior relationship is far from perfect, and there are many reasons why intentions and behaviors may diverge (Gross & Niman, 1975). In particular, the translation of intentions into behaviors will depend not only on the characteristics of the person (which include his or her attitudes) but also the specific circumstances of the situation in which the behavior might – or might not – occur (see Ross & Nisbett, 1991, for a classic review of the person/situation debate). Thus, the intentions of witnesses – perhaps their very best intentions – may unravel in the face of a host of cognitive, social, and cultural factors (as discussed above).

Process-based theories of policing and social control predict that citizens feel a sense of obligation to the criminal justice system; however, an alternative explanation may be that witnesses feel a sense of social obligation to other members of a community. Specifically, personal moral and religious imperatives may override attitudes about the legitimacy of the police. Judgments about a legal procedure, for instance, are influenced by whether citizens agree with the outcome (e.g., a U.S. Supreme Court ruling). When the outcomes conflict with citizens' moral beliefs, they rate the procedures as being less fair and are less likely to comply with legal authorities than when the outcomes align with their moral beliefs (Skitka, Bauman, & Lytle, 2009). Further research is needed to assess whether moral imperatives extend to crime reporting behavior and if so, if they are a more powerful predictor of reporting than perceptions of legitimacy.

Current Research

The current studies examine the legitimacy-reporting relationship within the context of circumstances and social factors that have been shown to be associated with the reporting of crime. Study 1 assesses whether the relationship between perceptions of legitimacy and willingness to report varies when the conditions of the crime are specified in hypothetical scenarios. Study 2 evaluates the relationship between perceptions of legitimacy, willingness to report crimes, and actual reporting behavior. Previous studies have asked about willingness to report crime or actual reporting, but not both within the same design. The specific aims and hypotheses for each study are detailed in the proceeding chapters.

The questionnaires in the present studies were administered on line, allowing respondents to participate at a time and location of their choosing, thus providing additional protections of privacy and confidentiality. These additional protections, and the anonymity provided by on-line administration, have been shown to reduce social desirability biases, compared to telephone or face-to-face interviews (Chang & Krosnick, 2009). The anonymity, self-pacing, and lack of interaction (i.e., not being able to ask for clarification if a question is confusing) associated with on-line questionnaires can also increase error (Krosnick, 1991; Sargis, Skitka, & McKeever, 2013); however, a growing body of research suggests that on-line questionnaires often provide results that are have less random error (Chang & Krosnick, 2009) and are comparable to other methods (Gosling, Vazire, Srivastava, & John, 2004).

The method and results for Study 1 are presented next in Chapter 3, and the method and results for Study 2 are presented in Chapter 4.

CHAPTER 3: STUDY 1

As discussed in Chapter 2, much of the support for the legitimacy-reporting relationship comes from studies assessing citizens' *willingness* to report crimes to police. Findings from these studies show that individuals who perceive the police as more legitimate also express greater willingness to report crimes to police (Murphy & Cherney, 2012; Murphy et al., 2008; Reisig et al., 2007; Sunshine & Tyler, 2003a; Tankebe, 2009; Tankebe, 2013; Tyler & Fagan, 2008). General willingness to report has frequently been measured with non-specific, hypothetical questions that do not specify the crime conditions such as, "If the situation arose, how likely would you be to call the police to report a crime?"

However, specifying the conditions of the crime may impact willingness to report. As reviewed in Chapter 1, a*ctual* crime reporting varies by the circumstances surrounding the crime (e.g., if the perpetrator was someone known to the victim versus a stranger). Incident-specific features of the crime are consistently found to be major predictors of actual crime reporting behavior (Bennett & Wiegand, 1994; Skogan, 1984). Asking respondents to answer questions about their willingness to report crimes in a broad manner potentially ignores the factors that actual victims and witnesses weigh in order to reach a reporting decision. Consider, for instance, that instead of being asked "If the situation arose, how likely would you be to call the police to report a report?" a participant was asked "How likely would you be to report a gang murder that occurred in front of your home, in such a way that the perpetrators knew where you lived?" It is

possible that adding details about the crime such as these would influence individuals' willingness to report just as it does in the real world with actual victims and witnesses.

There is evidence to suggest that people's willingness to report crime does vary depending on the circumstances of the crime. Brank and colleagues (2007) asked middle school students to rate their willingness to report a student who brought a weapon to school under various circumstances. The results showed that students' willingness to report varied depending on the circumstances. For instance, 83% of students stated that they "would report" [another student who brought a knife, gun, or other weapon to school] if they could do so anonymously. However, willingness to report dropped to 58% when respondents were asked whether they "would report" if the offending student was a friend.

The legitimacy-willingness relationship may also depend of the specific circumstances of the crime. For example, Reisig et al. (2012) presented participants with various hypothetical scenarios, including witnessing the theft of a wallet. The legitimacy-willingness relationship was statistically significant when the measure of reporting involved the passive behavior of providing information if contacted by the police ($t = 2.83$, $p < .05$), but was not significant when the measure of reporting was the more active behavior of contacting the police ($t = -.19$, $p > .05$). The relationship between legitimacy and willingness to report crime also did not hold when the hypothetical crime involved the bribing of a government official, a comparatively

more serious crime than a stolen wallet.[4] The authors concluded that "the effect of police legitimacy is restricted to a narrow form of helping the police fight crime that requires relatively little from individuals and involves a comparatively minor criminal offense" (Reisig et al., 2012, p. 158). Such results suggest that the strength of the legitimacy-willingness relationship may vary depending on the specific circumstances of the crime as well as the perceived consequences of reporting it. One might expect, for instance, that the legitimacy-willingness relationship would weaken when people are provided with incident-specific details that are associated with decreasing actual crime reporting rates.

Individuals may rely on schemas about crime when asked general, hypothetical questions. Schemas are mental frameworks for organizing knowledge and the associations between knowledge structures (Schank & Abelson, 1977). People form event schemas (scripts) about particular crimes (e.g., a robbery in a convenience store) even in the absence of direct experience (Greenberg, Westcott, & Bailey, 1998; Stalans & Diamond, 1990; Stalans & Lurigio, 1990). Eyewitnesses use scripts about a "typical" version of the crime to reconstruct gaps in their memories (Greenberg et al., 1998). What is imagined in these scenarios can also affect judgments, such as sentencing decisions. For instance, Stalans and Lurigio (1990) asked respondents to imagine a typical burglary and found that those who imagined a more severe version (e.g., the perpetrator was carrying a weapon) were less likely to endorse rehabilitation as a sentencing option.

[4] The regression model evaluating willingness to report the bribery of a government official was not significant ($F = 2.64$, $p < .05$) and thus, the individual predictor variables could not be reliably examined.

Expressed willingness to report might similarly vary depending on the characteristics that respondents assign the "typical crime" when asked general, hypothetical questions.

The goals of the present study were twofold. The first was to evaluate how participants interpret the broad, hypothetical willingness questions that are most commonly used in the extant literature. The present study evaluated whether participants interpret ambiguous questions about a crime using their own imagined circumstances and whether these imagined conditions influence their willingness to report. The second goal was to evaluate the relationship between perceptions of the legitimacy of police and willingness to report across different crime scenarios. Specific predictions concerning both of these goals are described next.

Hypotheses

1. Consistent with the broader literature on actual reporting (see Chapter 1), general willingness to report will be greater when the respondents *imagined*: (a) that they were the victim as compared with a witness; (b) that the victim was someone they recognized versus a stranger; (c) that the victim was female rather than male; (d) that the event was a violent crime rather than a property crime; (e) that the perpetrator was a stranger rather than someone they recognize; (f) that witness intimidation was absent versus when it was potentially present; and (g) that the crime was witnessed alone rather than in the presence of other non-victim witnesses.
2. There will be a positive association between legitimacy and willingness to report both when the crime conditions are unspecified and only imagined by respondents and when the conditions are explicitly specified.

3. The legitimacy-willingness relationship will vary depending on the crime conditions that respondents *imagined*. Specifically, the relationship between legitimacy and willingness will be stronger when: (a) the respondent imagined themselves as the witness rather than victim; (b) the victim was a stranger rather than someone they recognize; (c) the victim of the crime was male versus female; (d) the crime was a property rather than a violent crime; (e) the perpetrator was a stranger rather than someone they recognize; (f) the crime did not involve witness intimidation compared to when it potentially did; and (g) the crime was witnessed alone rather than in the presence of other non-victim witnesses.
4. Consistent with the broader literature on actual reporting (see Chapter 1), willingness to report will be greater when respondents are *explicitly* given the following set of crime circumstances: (a) the victim of the crime was female versus male; (b) the perpetrator was a stranger rather someone they recognized; (c) the crime did not include witness intimidation as compared to when it did; and (d) the crime was witnessed alone rather than in the presence of other non-victim witnesses.
5. The legitimacy-willingness relationship will vary when the crime conditions are *explicitly* provided. Specifically, the relationship between legitimacy and willingness will be stronger when: (a) the victim of the crime was male versus female; (b) the perpetrator was a stranger rather someone they recognized; (c) the crime did not include witness intimidation as compared to when it did; and (d) the crime was witnessed alone rather than in the presence of other non-victim witnesses.

Method

Participants

Three hundred and nine undergraduates aged 18 to 25 years (M = 19.29, SD =1.24) participated as one of several options to fulfill a course requirement for introductory psychology. The sample included 143 males (46.3%) and 163 females (52.8%), with three respondents not responding. The ethnic breakdown of the sample will be discussed in depth in the results section. There were no restrictions for participation other than respondents needed to be at least 18 years of age or a minor who had obtained parental consent prior to signing up for the study.

Procedure and Materials

Respondents who signed up for the study were provided with an internet link to the questionnaire items. Prior to the consent process, the voluntary nature of participation in the study was stressed. Specifically, respondents were told that they could withdraw from the study at any point without penalty or risk of not being able to satisfy their course requirement and that they could skip a question that they were not comfortable answering.

They were also told that they would be asked questions about their willingness to report crimes to police as well as questions about their previous interactions with law enforcement and their overall impressions of the criminal justice system. A brief description of the key items used in the study follows next.

General Willingness. The first goal of Study 1 was to assess how respondents interpret a broad set of hypothetical questions concerning willingness that do not specify

the conditions of the crime (i.e., the most commonly used approach to examine willingness in the extant literature). Thus, consistent with Tyler and Fagan's (2008) measure of general willingness, respondents were asked to assess the likelihood that they would call the police to report a crime, help the police to find someone suspected of a crime, or report dangerous or suspicious activity if "the situation arose" using a 4-point scale ranging from 1 = "not likely at all," to 4 = "very likely" ($\alpha = .72$; $M = 3.16$, $SD = .60$, $n = 309$).

Interpretation of General Willingness Questions. Immediately after respondents answered questions about their general willingness to report, they used a checklist to describe the crime scenario that they had *imagined* when answering the previous set of questions. Specifically, they were asked: (a) if they imagined themselves to be the witness or the victim of the crime; (b) if the victim was someone they recognized or not; (c) if the victim was male or female; (d) if the crime was a property crime or a violent crime[5]; (e) if the perpetrator was someone they recognized or a stranger; (f) if the perpetrator of the crime saw them or not; and (g) if they witnessed the crime alone or in the presence of others.

Willingness across Specific Crime Scenarios. The second goal of Study 1 was to assess the extent to which the legitimacy-willingness relationship might vary across specific hypothetical crime scenarios. In order to evaluate this question, respondents were asked to rate their willingness to report when presented with different circumstances

[5] Participants were given some examples of violent (i.e., murder, sexual assault, attempted sexual assault, robbery, assault) and property crimes (i.e., pickpocketing, car theft, burglary) to aid their comprehension of the question.

in which the crime could have taken place. The specific details of the materials and procedure are described next.

Respondents were told that they would be given two passages that described a hypothetical crime scenario and that their task was to read each passage and answer the corresponding questions following each scenario. One hypothetical scenario involved a violent crime: "Imagine that as you left a shopping center one night near closing time you **witnessed a guy beating someone up** in the parking lot" (emphasis in original). The other hypothetical scenario involved a property crime: "Imagine that as you left a shopping center one night near closing time you **witnessed a guy breaking into a car** in the parking lot" (emphasis in original).

After being presented with one scenario and before moving on to the next, respondents were asked to rate the degree to which they would be willing to report the crime to police under the following circumstances: (a) the perpetrator was someone the respondent knew (i.e., "the perpetrator of the crime was someone that you recognized from one of your classes") versus a stranger (i.e., "the perpetrator of the crime was a stranger"); (b) witness intimidation was present (i.e., "the perpetrator saw you as he was running away and told you, 'you didn't see nothing,' and that if you called the police he would 'fuck you up.'") versus absent (i.e., "the perpetrator looked in your direction, but didn't see you"); and (c) other witnesses were present (i.e., "you looked around and there were eight or nine other people in the parking lot who saw it happen, too") versus absent (i.e., "you looked around and there was no one else in the parking lot"). There was one additional set of circumstances that respondents considered for the violent crime scenario

– that is, the gender of the victim ("the person getting beaten up was female" vs. "the person getting beaten up was another male"). The gender of the victim was not varied for the property crime condition in order to make it clear that the crime did not involve a personal victimization. Thus, each respondent rated their willingness to report across 14 conditions (i.e., eight for the violent crime scenario and six for the property crime scenario). Willingness to report was rated using a 4-point scale ranging from "definitely would not report" (1) to "definitely would report" (4).

Legitimacy. Questions about perceived legitimacy were directly adapted from measures used by Tyler and colleagues (i.e., Tyler & Fagan, 2008; Tyler & Huo, 2002; Sunshine & Tyler, 2003a).[6] Attitudes regarding the legitimacy of police were evaluated using three indices: (1) obligation (e.g., "I feel that I should accept the decisions made by police even if I think they are wrong."), (2) trust and confidence in the police (e.g., I have confidence that the police in my city can do their job well."), and (3) affective attitudes towards and identification with the police (e.g., "I generally like the police officers who work in my neighborhood). For a list of all of the questions used in this scale, see Appendix A. Consistent with previous studies (e.g., Tyler & Fagan, 2008), obligation, trust in the police, and attitudes toward the police were highly correlated, (average r = .58, $p < .001$). A composite score was created that combined these three scales into one

[6] Other conceptualizations of legitimacy have been proposed (see Jackson et al., 2012; Tankebe, 2013). Measures developed by Tyler and colleagues (Sunshine & Tyler, 2003a; Tyler & Fagan, 2008) and that have been adapted by others (Tankebe, 2009) were specifically used in order to facilitate a direct comparison between willingness to report crime and the actual reporting of crime (see Chapter 4, which describes Study 2).

index of legitimacy (α = .90; *M* = 2.68, *SD* = .37, *n* = 307). The order of the sets of legitimacy and willingness questions were counterbalanced.

Results

Preliminary Analyses

The respondents self-identified as Caucasian (8.1%, *n* = 25) or as a member of at least one ethnic minority group (90.9%, *n* = 281): 42.7% Asian (*n* = 132), 34.0% Latino/Hispanic (*n* = 105), 3.9% African American (*n* = 12), and 1.9% Middle Eastern (*n* = 6). An additional 7.8% (*n* = 24) reported a multi-ethnic heritage, 0.6% self-identified as other (*n* = 2), and 1.0% of respondents did not answer the ethnicity question (*n* = 3). In general, the sample obtained for the present study reflects the ethnic diversity of the UC Riverside undergraduate student population. In the present sample, however, Caucasians were underrepresented (8.1%) as compared with the overall student population (17.4%) of this university (University of California, 2012).

Frequencies were calculated to examine how respondents interpreted the general willingness questions (see Table 1). There were some clear patterns in how respondents imagined the crime. Specifically, they overwhelmingly envisioned themselves as a witness rather than the victim to the crime and that the perpetrator was a stranger rather than someone they knew. Additionally, the majority of respondents imagined the victim as a stranger rather than someone they recognized, the event as a property rather than a violent crime, the crime occurring without being seen by the perpetrator, and witnessing stated that the gender of the hypothetical victim was unknown. The respondent's gender

Table 1. *Proportion of Crime Features Imagined by Respondents*

Condition	Proportion (*n*)
Identity of Respondent	
Victim	.07 (23)
Witness	.93 (286)
Recognized Victim	
Yes	.26 (79)
No	.74 (229)
Victim Gender	
Male	.38 (119)
Female	.29 (91)
Unknown	.32 (98)
Crime Type	
Violent	.38 (116)
Property	.61 (188)
Relationship to Perpetrator	
Non-Stranger	.08 (26)
Stranger	.92 (283)
Seen by Perpetrator	
Yes	.25 (78)
No	.75 (231)
Presence of Other Witnesses	
Witnessed with Others	.60 (187)
Witnessed Alone	.40 (122)

and the hypothetical victim's gender were correlated, $r = .29$, $p < .001$. Male respondents were more likely to imagine a male victim and female respondents were more likely to imagine a female victim. However, the consistency between the respondent's gender and the hypothetical victim's gender was stronger for male participants (72.2%) than for female participants (56.4%).

The means, standard deviations, and frequencies for the general willingness questions and the questions about willingness to report across specific crime conditions questions are listed in Tables 2 and 4, respectively. The results are discussed in depth in the following sections.

Interpretation of General Willingness Questions

As Table 2 illustrates, willingness to report crimes to police varied depending on what respondents envisioned while responding to the general willingness questions. Independent samples t-tests were conducted to examine whether any of these differences were statistically significant. (A one-way ANOVA was conducted for the gender variable given that there were three levels of this independent variable – male, female, and unknown.)

The analyses revealed three statistically significant differences in willingness to report, partially supporting Hypothesis 1. First, respondents who pictured a female victim were more willing to report crimes to police, $F(2, 307) = 3.41$, $p = .03$. Second, respondents were more willing to report when they envisioned a violent rather than a property crime, $t(302) = 2.51$, $p = .01$. Last, willingness scores were higher when respondents imagined that the perpetrator was a stranger as compared with someone they

Table 2. *Means, Standard Deviations, and Frequencies for General Willingness Questions*

Condition	*M*	*SD*	*N*
Identity of Respondent			
Victim	3.03	.67	23
Witness	3.17	.60	286
Recognized Victim			
Yes	3.10	.64	79
No	3.18	.59	229
Victim Gender			
Male	3.10	.58	119
Female	3.30	.64	91
Unknown	3.10	.59	98
Crime Type			
Property	3.08	.57	118
Violent	3.26	.63	116
Relationship to Perpetrator			
Non-Stranger	2.92	.69	26
Stranger	3.18	.59	283
Seen by Perpetrator			
Yes	3.15	.67	78
No	3.16	.58	231
Presence of Other Witnesses			
Other Witnesses	3.20	.56	187
Witnessed Alone	3.10	.67	122

recognized, $t(307) = 2.10$, $p = .04$. Willingness to report, however, did not differ depending on whether they imagined themselves as the victim or witness, $t(307) = 1.08$, $p = .28$, whether they imagined being seen by the perpetrator or not, $t(307) = -.10$, $p = .92$, or whether they imagined witnessing the crime with another third-party or alone, $t(307) = 1.32$, $p = .19$. In summary, the results suggest that although there is some consistency in how people interpret a non-specific question about crime reporting, there are also wide differences in interpretation. More important, people's willingness to report crime, based on such broad questions, will vary depending on the specific circumstances of the crime as they imagine them.

Legitimacy-Willingness Relationship for Imagined Crimes

The strength of the legitimacy-willingness relationship for the imagined crimes was assessed (see Table 3). First, the correlations between legitimacy and general willingness were calculated for each set of conditions imagined (e.g., whether the perpetrator was pictured as a stranger or non-stranger). Each of the correlations was statistically significant at the $p < .01$ level. In support of Hypothesis 2, there was a consistent positive association between legitimacy and willingness to report. The magnitude of the effect sizes ranged from .35 to .57.

Analyses were then conducted to determine whether the correlations between legitimacy and willingness were significantly different from each other (e.g., whether the legitimacy-willingness relationship was stronger when the respondent imagined that the perpetrator was a stranger compared to a non-stranger). Specifically, Fisher's z-test

Table 3. *Correlations between Legitimacy and Willingness to Report for Imagined Crimes*

Condition	*r (n)*
Identity of Respondent	
Victim	.57 (23)
Witness	.39 (284)
z	.99
p	.32
Recognized Victim	
Yes	.50 (78)
No	.38 (228)
z	1.16
p	.25
Victim Gender	
Male	.42 (118)
Female	.40 (91)
z	.14
p	.89
Crime Type	
Property	.44 (186)
Violent	.38 (116)
z	.65
p	.52
Relationship to Perpetrator	
Non-Stranger	.54 (26)
Stranger	.39 (281)
z	.90
p	.37
Seen by Perpetrator	
Yes	.46 (77)
No	.39 (230)
z	.60
p	.55
Presence of Other Witnesses	
Other Witnesses	.35(186)
Witnessed Alone	.46 (121)
z	-1.12
p	.26

transformation was employed. The *z*-score in Table 3 therefore represents the difference between two correlation coefficients and follows the normal rules for a *z* distribution. Pairwise comparisons of the correlations were non-significant across every condition; thus, Hypothesis 3 was not supported. The results showed variation in the legitimacy-willingness relationship in the predicted direction for only three of the seven conditions (i.e., victim gender, crime type, and presence of other witnesses). Additionally, the magnitude of the correlations did not vary in a statistically significant fashion for any of the conditions.

Willingness to Report across Specific Crime Conditions

As illustrated in Table 4, willingness to report crimes to police also varied when the specific crime conditions were explicitly described to respondents. Paired sample t-tests were conducted to examine whether any of these differences were statistically significant.

The analyses revealed statistically significant differences in willingness to report across every crime condition, fully supporting Hypothesis 4. Specifically, respondents expressed greater willingness to report when: (a) the victim of the violent crime was a female rather than male, $t(307) = 11.03$, $p < .001$; (b) the perpetrator in both the property and violent crimes was a stranger compared to a non-stranger, $t(307) = 5.67$, $p < .001$ and $t(307) = 4.95$, $p < .001$, respectively; (c) witness intimidation was absent versus present during both the property and violent crimes, $t(308) = 7.27$, $p < .001$ and $t(308) = 7.58$, $p < .001$, respectively; (d) they hypothetically witnessed the property and violent crimes alone as compared to with others, $t(306) = 5.70$, $p < .001$ and $t(306) = 6.33$, $p < .001$.

Table 4. *Means and Standard Deviations for Willingness to Report across Specific Crime Conditions*

	Property Crime		Violent Crime	
Condition	*M*	*SD*	*M*	*SD*
Victim Gender				
Male	-	-	3.39	.69
Female	-	-	3.76	.50
Relationship to Perpetrator				
Non-Stranger	3.33	.75	3.33	.75
Stranger	3.50	.69	3.51	.62
Seen by Perpetrator				
Yes	3.18	.87	3.21	.83
No	3.45	.72	3.50	.67
Presence of Other Witnesses				
Other Witnesses	3.23	.82	3.23	.80
Witnessed Alone	3.43	.73	3.49	.65

Legitimacy-Willingness Relationship across Specific Crime Conditions

The strength of the legitimacy-willingness relationship across different specified crime conditions was next assessed (see Table 5). Correlations between legitimacy and willingness were calculated for each set of explicitly-described crime conditions (e.g., whether the perpetrator was a stranger or non-stranger). The majority of correlations were statistically significant at the $p < .01$ level. The one exception was a marginal relationship ($p = .07$) for the violent crime condition that had a female victim. The results again showed a positive relationship between legitimacy and willingness for each crime scenario, furthering support for Hypothesis 2. The magnitude of the effect sizes was smaller than for the imagined crimes and ranged from .10 to .25.

Analyses were then conducted to determine whether the correlations between legitimacy and willingness were significantly different from each other (e.g., whether the legitimacy-willingness relationship was stronger when it was *explicitly* specified that the perpetrator was a stranger compared with a non-stranger). Given the within-subjects nature of the design – that is, the fact that respondents rated their willingness across every crime condition, and as such, all the legitimacy-willingness correlations were correlated with each other – a z score was computed that took into account the non-independent nature of the correlations (Meng, Rosenthal, & Rubin, 1992).

Hypothesis 5 was partially supported. For both violent crimes and property crimes, the relationship between legitimacy and general willingness was stronger in magnitude when (a) the perpetrator was a stranger rather than a non-stranger, (b) witness intimidation was absent rather than present, and (c) the crime was hypothetically

Table 5. *Correlations between Legitimacy and Willingness to Report across Specific Crime Conditions*

	Legitimacy	
	Property Crime	Violent Crime
Condition	*r*	*r*
Victim Gender		
Male	--	.16*
Female	--	.10+
z	--	-1.03
p	--	.30
Relationship to Perpetrator		
Non-Stranger	.21**	.16*
Stranger	.23**	.23**
z	.45	1.27
p	.65	.20
Witness Intimidation		
Present	.18**	.16*
Absent	.25**	.24**
z	1.46	1.66
p	.14	.10+
Presence of Other Witnesses		
Other Witnesses	.14*	.15*
Witnessed Alone	.22**	.20**
z	1.87	.93
p	.06+	.35

Note. * $p < .01$, ** $p \leq .001$; + Indicates marginal significance ($p \leq .10$)

witnessed alone as compared with others. Additionally, the legitimacy-willingness relationship was stronger when the victim of a violent crime was male rather than female. Pairwise comparisons of the correlations, however, revealed only one statistically significant effect. Collapsing across crime type, the legitimacy-willingness relationship was stronger when witness intimidation was absent rather than present, $z = 2.21$, $p = .03$.

Discussion

Researchers have often used a general measure of willingness to assess the legitimacy-willingness relationship. The results of the present study suggest that participants interpret these general questions by imagining specific crime conditions. For instance, they are overwhelmingly more likely to imagine a crime scenario in which the perpetrator of the crime is a stranger rather than someone they know. These results are consistent with previous studies showing that when presented with ambiguous information about a crime, people use schemas to imagine specific features of the offense (Greenberg et al., 1998; Stalans & Diamond, 1990; Stalans & Lurgio, 1990).

Willingness to report varied depending on the crime conditions imagined. The factors that increased willingness in the present study were consistent with those that also increase actual crime reporting rates. Specifically, willingness was stronger when respondents imagined that the victim of the crime was female rather than male, that the perpetrator was a stranger rather than a non-stranger, and that the crime was a violent crime rather than property offense. In addition, willingness to report varied in the predicted directions when the features of the crime were explicitly defined. These results extend the results of Brank et al.'s (2007) study with middle school children to college

aged students. The results suggest that even if a general measure of willingness is used, participants may imagine a specific crime scenario that has not been specified and that the factors associated with their imagined scenarios can affect their stated willingness to report.

The legitimacy-willingness relationship was robust across both imagined and explicitly-described circumstances. Respondents who viewed the police as more legitimate also expressed greater willingness to report crimes across a wide range of hypothetical crime scenarios. These results are consistent with previous research that has shown a significant legitimacy-willingness relationship when a measurement of general willingness was used (e.g., Murphy & Cherney, 2012; Sunshine & Tyler, 2003a; Tankebe, 2009; Tyler & Fagan, 2008). However, consistent with previous results by Reisig et al. (2012) the strength of the legitimacy-willingness relationship can vary depending on the circumstances of the crime. For instance, the legitimacy-willingness relationship was stronger when the hypothetical scenario suggested that witness intimidation was absent rather than present.

As previously mentioned, the magnitude of the effect sizes examining the legitimacy-willingness relationship for the imagined crimes was stronger (range: .35 to .57) than for the explicitly-defined crime scenarios (range: .10 to .25). In the imagined crime condition, participants were not explicitly asked to think about a crime scenario when answering the general willingness questions. This method is consistent with how general willingness is typically assessed (e.g., Murphy & Cherney, 2012; Sunshine & Tyler, 2003a; Tankebe, 2009; Tyler & Fagan, 2008); however, there may be limitations

to this method as discussed below. Additionally, participants were provided with a checklist of possible crime scenarios that they could have imagined only *after* they had answered the general willingness questions. Given that participants were not asked to imagine a specific crime scenario and did not freely describe the crime scenario imagined, it is possible that they did not actually imagine the crime features endorsed on the checklist when they answered the willingness questions. Rather, they might have only considered these specific features when they were provided with the checklist.

This methodological difference between the imagined crime and explicitly-defined crime conditions could help to explain the difference in effect sizes for the legitimacy-willingness relationship. The strength of the relationship may have been stronger in the imagined scenarios because some of the specific details outlined in the explicitly-defined crime conditions had not yet been considered when asked the general willingness questions. However, it is not possible to determine what participants only imagined when they were provided with the general willingness questions versus the features pictured post-hoc when provided with the checklist. Additionally, there may have been an order effect. The imagined scenarios were always presented first. It is possible that doing so made the crime features more salient when participants were presented with the explicitly-defined scenarios.

There are several important avenues for future research. First, factors that influence imagined crime features should be explored. The present study did not examine, for instance, if prior victimization experiences influenced the type of crime that participants imagined. Second, future research ought to assess how well imagined crime

features map onto the frequency of actual crimes. For instance, participants in the present study were more likely to imagine a property offense rather than a violent crime. These results are consistent with data showing that property crimes are more likely to occur than violent crimes (U.S. Department of Justice, 2013; Hart & Rennison, 2003). However, other comparisons are not as straightforward. For instance, the gender of the victim and the crime type imagined may be related and this is hard to disentangle in the present study. Actual victims of sexual assault are more likely to be female (Catalano, Smith, Snyder, & Rand, 2009); however, victims of homicides are more likely to be male (Smith & Cooper, 2013). To be able to assess the degree to which imagined crimes map onto actual crimes, participants will need to be asked to provide more specific details about the crime type imagined.

Third, future research should counterbalance the presentation of the imagined and explicitly defined crime conditions to explore order effects. Fourth, the use of a free response or narrative prompt should be employed instead of a checklist. In addition, participants should be asked about the crime features imagined before being presented with the general willingness questions. Last, combinations of factors should be explored to identify possible modal narratives. For example, the frequency with which respondents imagined a violent crime in which the participant was a witness rather than a victim, and both the victim and the perpetrator were unknown to the participant, and the perpetrator did not see the participant could be explored using latent class analysis. Also, the legitimacy-willingness relationship may vary depending on a number of crime

features. The present study looked only looked at how the relationship varied depending on at most two explicitly-defined features.

In summary, three major findings emerged from the present study. First, willingness to report crimes to the police may vary across specific crime circumstances. Second, there was a positive association between legitimacy and willingness to report when the crime conditions were both imagined and when they were explicitly specified. Last, the strength of the legitimacy-willingness relationship may vary depending on the circumstances of the crime.

CHAPTER 4: STUDY 2

The primary purpose of Study 2 was to examine the relationship between perceptions of legitimacy, general willingness, and actual reporting. The study included a wider range of violent crimes and property crimes than used in previous studies (e.g., Kochel et al., 2013), and examined the legitimacy-reporting relationship within the context of circumstances and social variables that have been shown to be associated with the reporting of crime and may mitigate the legitimacy-reporting relationship.

Hypotheses

1. Consistent with process-based models of policing and social control (see Chapter 2), perceptions of police legitimacy should be positively associated with both general willingness and actual reporting.
2. Based on theoretical grounds and previous research findings (as discussed in Chapter 1), actual reporting should be related to a host of incident-specific and social variables. Witnesses and victims should be less likely to report crimes to police when: (a) they know the perpetrator of the crime; (b) they witness the crime with others; (c) they perceive the crime as not serious; (d) they are advised or discouraged from participating by family members or friends; (e) they fear retaliation; (f) they fear being labeled a "snitch;" (g) they are desensitized to violence after repeated exposure; (h) they have a history of delinquency; or (i) they do not view crime reporting as a moral duty.

Method

Participants

Seventy-five undergraduates aged 17 to 35 years (M = 19.65, SD =2.53) participated as one of several options to fulfill a course requirement for introductory psychology.[7] The sample included 33 males (44%) and 42 females (56%). The ethnic breakdown of the sample will be discussed in depth in the results section.

There were two eligibility restrictions on participation. First, respondents needed to be at least 18 years of age or a minor who had obtained parental consent prior to signing up for the study. Second, respondents needed to be either a witness to or victim of a serious crime within the previous two years. A "serious crime" was defined as a murder, sexual assault/rape, attempted sexual assault, robbery, assault, robbery, burglary, theft, motor vehicle theft, or arson. Participants answered a prescreening question that asked whether they had been a witness to or victim of a serious crime within the previous two years prior to knowing that this study was an option to fulfil their course requirement.

[7] A large number participant data collected for Study 2 could not be reliably evaluated (n = 435, 88.8%). There was evidence to suggest some participants had not been truthful about being a victim or witness of a serious crime. As a result data from these 435 participants were excluded from the analyses and additional prescreening measures were added to ensure that participants who signed up for the study were actually victims and witnesses of a serious crime and were not just saying so to get credit for participating. The data presented in the current study are only from those who passed these additional prescreening measures. Additionally, these data were collected both before and after the Michael Brown shooting in Ferguson, Missouri.

Procedures and Materials

Respondents who signed up for the study were provided with an internet link to the questionnaire items. Prior to the consent process, the voluntary nature of participation in the study was stressed. Specifically, respondents were told that they could withdraw from the study at any point without penalty or risk of not being able to satisfy their course requirement and that they could skip a question that they were not comfortable answering. They were also told that they would be asked questions about their experiences as a victim or witness of a serious crime, whether they reported the crime, their reasons for reporting or not reporting, as well as questions about their previous interactions with law enforcement and their overall impressions of the criminal justice system. A brief description of the key items used in the study follows next (see Appendix A for a full list of items used for legitimacy, procedural justice, police effectiveness, self-reported delinquency, and exposure to violence).

Participant Characteristics. Basic demographic information was obtained (i.e., age, sex, and ethnicity). Respondents were asked to indicate whether they experienced the crime as either a victim or witness.

Incident-Specific Details. Respondents were asked more detailed information about the crime they experienced. Specifically, they indicated the crime type and their relationship to the offender (i.e., stranger, acquaintance, friend, romantic interest – boyfriend, girlfriend, or spouse – or family member). They were also asked if there

were other witnesses present during the crime.[8] Crime types were later categorized into violent and property crimes using the FBI Uniform Hierarchy Rule. According to this Rule, when multiple crimes are committed within the same incident, the most serious offense is coded and the others are ignored (U.S. Department of Justice, 2004). Also following these guidelines, attempted murders were reclassified as assaults. Participants were also asked to indicate the degree to which they thought the crime was serious using a 3-point scale (i.e., 1 = "not very serious," 2 = "fairly serious," 3 = "very serious").

General Willingness and Actual Reporting. The two main outcome variables of interest were general willingness to report crimes to police and actual reporting behavior. Consistent with Tyler and Fagan's (2008) measure of general willingness, respondents were asked to assess the likelihood that they would call the police to report a crime, help the police to find someone suspected of a crime, or report dangerous or suspicious activity if "the situation arose" using a 4-point scale ranging from 1 = "not likely at all," to 4 = "very likely" ($\alpha = .83$). Actual reporting was measured by the question, "Did you tell the police?" about the crime experienced.

Social Influences. Six questions assessed the role of social interactions on the decision to report. Three of these questions were related to discussion about the crime. Specifically, respondents were asked if they discussed the crime with anyone (and if so, who) and if anyone advised or directed them to report or not report the crime. They were also asked to rate the degree to which they feared retaliation and being labeled a "snitch"

[8] The victim-offender relationship and the presence of other victims could also be considered social factors. The reason for categorizing them as incident-specific instead of social factors is discussed in the results section.

if they reported the crime on a 4-point scale ranging from "strongly disagree" (1) to "strongly agree" (4). Last, they indicated the number of times that they had contact with the police within the last year.

Legitimacy and Procedural Justice. Consistent with Study 1, questions about perceived legitimacy were directly adapted from measures used by Tyler and colleagues (i.e., Tyler & Fagan, 2008; Tyler & Huo, 2002; Sunshine & Tyler, 2003a). The three components of legitimacy – obligation, trust in the police, and attitudes toward the police – were again highly correlated, (average $r = .50$, $p < .001$). Thus, a composite score was created that combined these three scales into one index of legitimacy ($\alpha = .90$). Perceptions of procedural justice were assessed using two indices: (1) the quality of police decision-making (e.g., "The police make their decisions based on facts, not their personal biases and opinions"), and (2) the quality of interpersonal treatment (e.g., "The police treat people with dignity and respect"). The two indices were highly correlated ($r = .76$, $p < .001$), and thus were combined to create a composite score for procedural justice ($\alpha = .91$).

Police Effectiveness. Questions about perceived police effectiveness were adapted from measures used by Tyler and colleagues (i.e., Sunshine & Tyler, 2003a; Sunshine & Tyler, 2003b). Respondents used a 4-point scale ranging from "very ineffective" (1) to "very effective" (4) to rate five items related to police effectiveness in fighting and controlling crime in their neighborhoods (e.g., "How effective have the police been at controlling violent crime in your city?"), $\alpha = .86$.

Self-Reported Delinquency. Questions about prior delinquent or criminal activity were adapted from measures used in previous studies (Elliot, Huizinga, & Menard, 1989; Megens & Weerman, 2010; Nagin & Paternoster, 1991). Participants were asked if they had ever engaged in 19 delinquent or criminal activities (e.g., "Have you ever been in a physical fight that involved hitting, slapping, punching, beating, stabbing, or shooting another person?"). They responded by either answering "yes, this has occurred in my lifetime" or "no, this has not occurred during my lifetime." A composite score for self-reported delinquency across the lifetime was created by summing the "yes" response across the 19 questions.

Exposure to Violence. Questions from the My Exposure to Violence (ETV) structured interview (Selner-O'Hagan, Kindlon, Buka, Raudenbush, & Earls, 1998) were adapted for online use. Respondents answered "yes" or "no" to questions about lifetime exposure to 16 violent events that could have either been witnessed or personally experienced (e.g., "Have you ever been in a physical fight that involved hitting, slapping, punching, beating, stabbing, or shooting another person?"). A composite score for lifetime exposure to violence was created by taking the sum of "yes" answers across the 16 questions.

Moral Duty to Report. Three questions assessed the role of moral imperatives on the decision to report crimes to police. The items were adapted from measured used by Skitka and colleagues (2009). Respondents used a 4-point scale ranging from (1) strongly disagree to (4) strongly agree to rate the degree to which they endorsed the following items: "My feelings about reporting crimes to the police are a reflection of my

core moral values and convictions;" "My feelings about reporting crimes to the police are deeply connected to my beliefs about right and wrong;" "My attitude about reporting crimes to the police is closely connected to my religious beliefs."

Satisfaction with Reporting Decision. Participants answered one question designed to evaluate satisfaction with their reporting decision. They rated the degree to which they agreed with the following statement using a 4-point scale ranging from (1) "strongly disagree" to (4) "strongly agree:" "I regret the decision that I made about either reporting or not reporting the crime to police."

Results

The proportion of crimes reported to police by gender, ethnicity, victim-witness status, victim-offender relationship, and crime type are listed in Table 6. The respondents self-identified as Caucasian (4.0%, $n = 3$) or as a member of at least one ethnic minority group (96.0%, $n = 72$): 34.7% Latino/Hispanic ($n = 26$), 26.7% Asian ($n = 20$), 8.0% African American ($n = 6$), 2.7% Middle Eastern ($n = 2$), and 1.3% Native American ($n = 1$). An additional 20.0% ($n = 15$) reported a multi-ethnic heritage, and 2.7% self-identified as other ($n = 2$). In general, the sample obtained for the present study reflects the ethnic diversity of the UC Riverside undergraduate student population. In our sample, however, Caucasians were underrepresented (4.0%) as compared with the overall student population (17.4%) of this university (University of California, 2012). This result is consistent with research showing that ethnic minorities are more likely to be exposed to and witness violence (Buka et al., 2001) as well as be victims of violent crime compared with Caucasians (Truman & Rand, 2010; Sampson & Lauritsen, 1997).

Table 6. *Descriptive Statistics for Reporting Behavior*

Variable (*n*)	Proportion Reported to Police (*n*)
Gender	
Males (33)	.48 (16)
Females (42)	.52 (22)
Ethnicity	
Latino/Hispanic (26)	.54 (14)
Asian (20)	.55 (11)
Multiethnic (15)	.53 (8)
African American (6)	.50 (3)
European-Caucasian (3)	.67 (2)
Middle Eastern (2)	.00 (0)
Other (2)	.00 (0)
Native American (1)	.00 (0)
Victim vs. Witness Status	
Victim (41)	.51 (21)
Witness (34)	.50 (17)
Relationship to Perpetrator	
Family Member (3)	1.00 (3)
Girlfriend, Boyfriend, or Spouse (5)	.00 (0)
Friend (9)	.11 (1)
Acquaintance (6)	.50 (3)
Stranger (52)	.60 (31)
Crime Type	
Violent Crimes (47)	.43 (20)
Murder (3)	.67 (2)
Sexual Assault/Rape (8)	.12 (1)
Attempted Sexual Assault/Rape (8)	.50 (4)
Armed Robbery (7)	.71 (5)
Unarmed Robbery (6)	.50 (3)
Aggravated Assault (14)	.36 (5)
Simple Assault (1)	.00 (0)
Property Crimes (28)	.64 (18)
Burglary (8)	.88 (7)
Theft (16)	.50 (8)
Motor-Vehicle Theft (4)	.75 (3)

Descriptive Analyses

The majority of crimes in this sample were experienced by victims (54.7%, *n* = 41) rather than witnesses (45.3%, *n* = 34), committed by strangers (69.3%, n = 52) rather than people who had a prior relationship with the respondent (30.7%, *n* = 23), and violent crimes (62.3%, *n* = 47) rather than property crimes (37.3%, *n* = 28). The most frequently experienced violent crimes in this sample were attempted or completed sexual assaults (34.0%, *n* = 16) and aggravated assaults (29.8%, *n* = 14). It is worth noting that there were also three cases in which respondents stated that they had witnessed a murder. The most frequently experienced property crimes were thefts (57.1%, *n* = 16) and burglaries (28.6%, *n* = 8).

The sample drawn for this study was unique in that violent crimes were overrepresented. Of the over 25 million crimes documented by the NCVS between 1992 and 2000, approximately 24.3% were violent (Hart & Rennison, 2003). More recent data from the NCVS also show that property crimes were more prevalent than violent crimes (Rand & Catalano, 2007; Truman & Rand, 2010; Truman & Langton, 2014).

Overall, 50.7% (*n* = 38) of crimes were reported to police. There was not a statistically significant difference in reporting rates between victims and witnesses, χ^2 (1, *N* = 75) = .01, *p* = .92, *r* = .012. Crimes that were committed by strangers were reported more often to the police than those committed by perpetrators known to the victim/witness (i.e., family members, romantic interests, friends, and acquaintances), χ^2 (1, *N* = 75) = 5.43, *p* = .02, *r* = -.27.

Violent crimes were marginally less likely to be reported to police than property crimes, χ^2 (1, N = 75) = 3.32, p = .07, r = .15. However, the relationship between crime type (property vs. violent) and reporting was statistically non-significant when attempted and completed sexual assaults/rapes were removed from the analysis, χ^2 (1, N = 59) = 1.51, p = .22. There were no significant differences in reporting based on whether the perpetrator had a weapon, χ^2 (1, N = 74) = .17, p = .68, r = -.05, or if the victim/witness was injured during the crime, χ^2 (1, N = 75) = 2.32, p = .13, r = -.18.

Prior contact with police varied across respondents. Approximately 10.7% (n = 8) of the sample stated that they had no previous personal contact with the police. Additionally, 63.2% of reporters (n = 24) and 45.9% of non-reporters (n = 17) had at least one interaction with the police after the crime occurred. The most recent interaction with police was more likely to be related to the crime in question for reporters than non-reporters, χ^2 (1, N = 66) = 11.35, p < .001, r = .42.

Legitimacy, General Willingness, & Reporting

The central questions of the present study concern the extent to which respondents' perceptions regarding the legitimacy of the police were associated with their general willingness to report crime and with their actual reporting of crime. These relationships were examined through path analysis. The variables chosen for the path analysis were selected on theoretical grounds (see Chapter 2 for a detailed discussion). Given the cross-sectional nature of the present study, the path model provides a conceptual framework for examining the relationships between variables and thus, conclusions regarding causality could not be made. The analyses were conducted in

version 6 of the Mplus statistical software package. The weighted least squares estimator (WLSMV) for handling missing data was employed given that it provides the best option for dealing with a combination of categorical and continuous dependent variables (Brown, 2006) and yields measures of model fit.

Means, standard deviations, and correlations among the variables used in the path analyses can be found in Tables 7 and 8. The results of the first path analysis are shown in Figure 1. Model fit statistics were good, χ^2 (2, N = 75) = 1.93, p = .38, *RMSEA* = < .001, *CFI* = 1.00, *TLI* = 1.00, *WRMR* = .37.

Table 7. *Means and Standard Deviations for Variables in Path Models*

Variable	*M*	*SD*
Actual Reporting	.51	.50
General Willingness	3.17	.76
Legitimacy	2.69	.40
Police Effectiveness	2.54	.79
Procedural Justice	2.88	.63

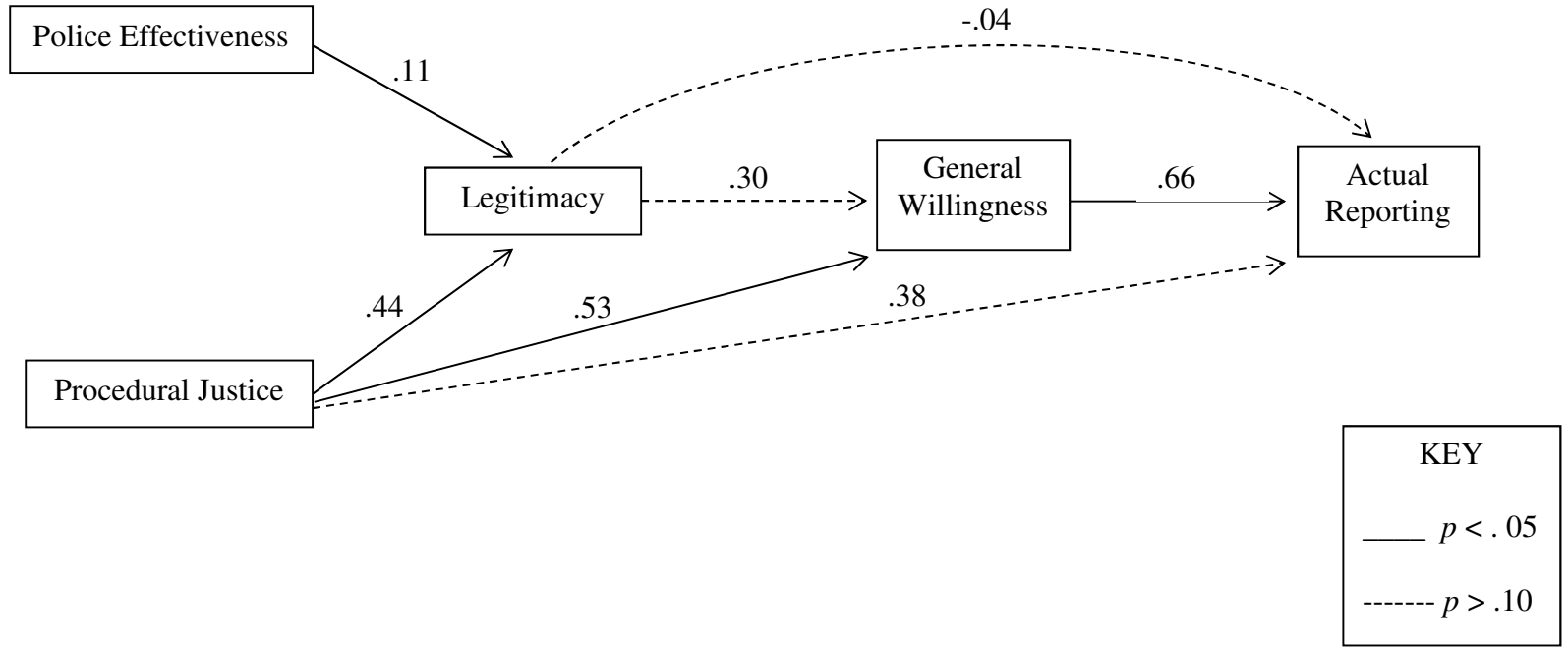
Note. Actual reporting: 0 = did not report crime, 1 = reported crime

Table 8. *Correlations among Variables in Path Models*

Variable	(1)	(2)	(3)	(4)	(5)
(1) Actual Reporting	--	.44***	.30**	.07	.36**
(2) General Willingness	.	--	.50***	.30**	.59***
(3) Legitimacy			--	.38***	.75***
(4) Police Effectiveness				--	.26*
(5) Procedural Justice					--

Note. $^{*}p < .05$; $^{**}p \leq .01$; $^{***}p \leq .001$

Figure 1. *Results of Path Analysis*



Direct relationships between the variables were examined. Consistent with the results reported by Kochel et al. (2013), police effectiveness was positively associated with legitimacy, $b = .11$, $SE = .05$, $p = .03$, 95% *CI* [.01, .21]. Individuals who were more likely to view the police as effective were also more likely to perceive them as legitimate. In addition, consistent with the prior research (e.g., Tyler & Fagan, 2008) individuals who had more positive perceptions regarding the quality of police interpersonal treatment and decision-making (i.e., procedural justice) were more likely to view the police as legitimate authorities, $b = .44$, $SE = .06$, $p < .001$, 95% *CI* [.33, .55].

Of key interest to the present study was the relationship between perceptions of legitimacy, willingness, and actual reporting. Contrary to expectations and previous research (Murphy & Cherney, 2012; Murphy et al., 2008; Reisig et al., 2007; Sunshine & Tyler, 2003a; Tankebe, 2009, 2013; Tyler & Fagan, 2008) perceptions of legitimacy were not associated with general willingness, $b = .30$, $SE = .33$, $p = .36$, 95% *CI* [-.34, .94]. However, individuals who had higher procedural justice scores were more willing to report crimes to police, $b = .53$, $SE = .21$, $p = .01$, 95% *CI* [.11, .94]. General willingness was positively associated with actual reporting, $b = .66$, $SE = .20$, $p = .001$, 95% *CI* [.27, 1.05]. Compared with non-reporters, reporters of actual crimes were more likely to express willingness to notify the police about future crimes. Neither perceptions of legitimacy nor procedural justice were associated with actual reporting, $b = -.04$, $SE = .56$, $p = .94$, 95% *CI* [-1.14, 1.06] and $b = .38$, $SE = .37$, $p = .30$, 95% *CI* [-.34, .99], respectively.

Indirect relationships between the variables were also examined. Significance testing was conducted using Preacher and Hayes' (2008) *INDIRECT* macro for Mplus. The macro estimates path coefficients for mediation models and produces bootstrap confidence intervals. The pathway from legitimacy to actual reporting via general willingness was not statistically significant, $b = .20$, $SE = .23$, $p = .39$, 95% *CI* [-.25, .65]. Additionally, the pathway from procedural justice to actual reporting via legitimacy was not significant, $b = -.02$, $SE = .25$, $p = .94$, 95% *CI* [-.50, .46], nor was pathway from procedural justice to actual reporting via legitimacy and general willingness, $b = .09$, $SE = .10$, $p = .39$, 95% *CI* [-.11, .28]. However, the pathway from procedural justice to actual reporting via general willingness was significant, $b = .35$, $SE = .18$, $p = .05$, 95% *CI* [.004, .69]. Thus, procedural justice had an indirect effect on actual reporting through general willingness; however, it was not directly associated with actual reporting behavior.

The result that the relationship between perceptions of legitimacy and willingness was not statistically significant was surprising. Further examination of the variables used in the path analysis revealed that there may have been issues with multicollinearity (i.e., two or more independent variables in the model could have been highly correlated leading to the incorrect assumption that one or more of those independent variables was not associated with the dependent variable). The bivariate relationship between legitimacy and procedural justice was strong, $r = .75$, $p < .001$. Multicollinearity statististcs were obtained using linear regression. Allison (1999) suggested that Variance Inflation Factor (VIF) values – a statistic measuring the degree to which the variance of a

regression coefficient is increased due to collinearity – above 2.5 indicate cause for concern. Legitimacy had a VIF of 2.48 and procedural justice had a VIF of 2.66. Thus, there was evidence that multicollinearity was an issue. In order to deal with this issue and because the relationship between legitimacy, willingness, and actual reporting was of primary interest to the present study, procedural justice was dropped from the model. When procedural justice was removed, the VIF for legitimacy dropped to 1.44.

Figure 2 shows the results of the path analysis without procedural justice. Comparing the two path analyses, the better fitting model was the one that removed procedural justice, χ^2 (2, N = 75) = 1.75, p = .42, *RMSEA* = < .001, *CFI* = 1.00, *TLI* = 1.02, *WRMR* = .34.

Importantly, perceptions of legitimacy were associated with general willingness, b = .99, *SE* = .22, p < .001, 95% *CI* [.57, 1.42], but not actual reporting, b = .34, *SE* = .41, p = .41, 95% *CI* [-.47, 1.14]. Witnesses and victims who viewed the police as more legitimate authorities were more likely to express willingness to report crimes, but were not actually more likely to report. However, the indirect pathway from legitimacy to actual reporting via general willingness was statistically significant, b = .66, *SE* = .23, p = .004, 95% *CI* [.21, 1.11]. Thus, general willingness mediated the relation between legitimacy and actual reporting. The positive association between police effectiveness and perceptions of legitimacy, as well as general willingness and actual reporting remained statistically significant in this model, b = .21, *SE* = .06, p < .001, 95% *CI* [.09, .32], and b = .66, *SE* = .18, p = .001, 95% *CI* [.31, 1.01], respectively.

Figure 2. *Results of Path Analysis without Procedural Justice*

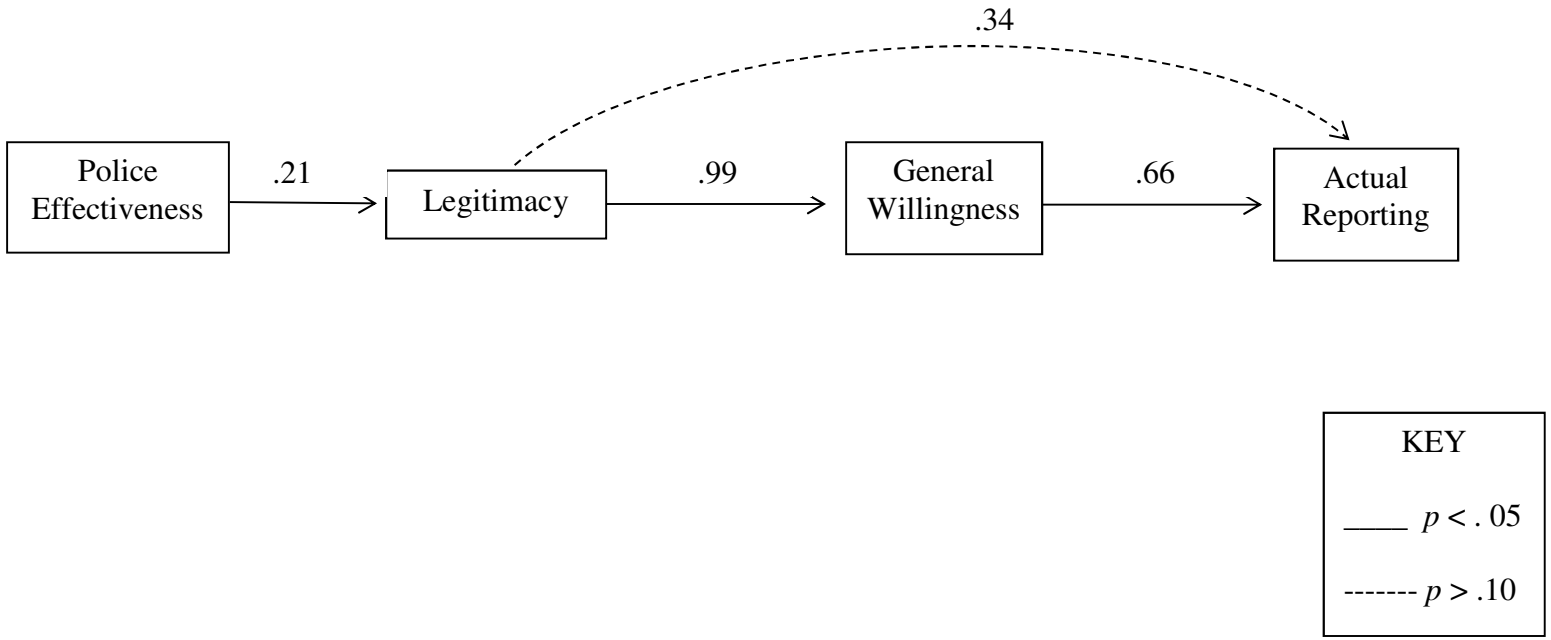


Figure 3 shows the results of a path analysis without procedural justice and general willingness, χ^2 (1, N = 75) = .24, p = .62, *RMSEA* = < .001, *CFI* = 1.00, *TLI* = 1.15, *WRMR* = .18. In this model, perceptions of legitimacy were associated with actual reporting behavior, b = .99, SE = .32, p = .002, 95% CI [.35, 1.61]. This provides additional evidence that the relation between actual reporting and perceptions of legitimacy was mediated by general willingness.

Summary. In summary, Hypothesis 1 was partially supported. Perceptions of legitimacy were associated with general willingness, but not with actual reporting. Perceptions of procedural justice had an indirect effect on actual reporting through general willingness; however, it was not directly associated with actual reporting behavior. General willingness was positively associated with actual reporting.

Other Factors Associated with Crime Reporting

Given the lack of association between perceptions of legitimacy and actual reporting, the association between reporting and other incident-specific, social, and cognitive factors was examined. Correlations between these factors and actual reporting are listed in Table 9 and are discussed in depth below.

Crime Seriousness. Crime seriousness was positively associated with crime reporting. Crime reporters perceived the crime as more serious (M = 2.53, SD = .56) than non-reporters (M = 2.24, SD = .49), t(73) = -2.23, p = .02.

Social Influences. The vast majority of respondents discussed the crime with at least one other person, such as a parent/caregiver, co-witness, significant other, friend, or family member (96%, n = 72). Witnesses who talked specifically to their parents or

Figure 3. *Results of Path Analysis without Procedural Justice and General Willingness*

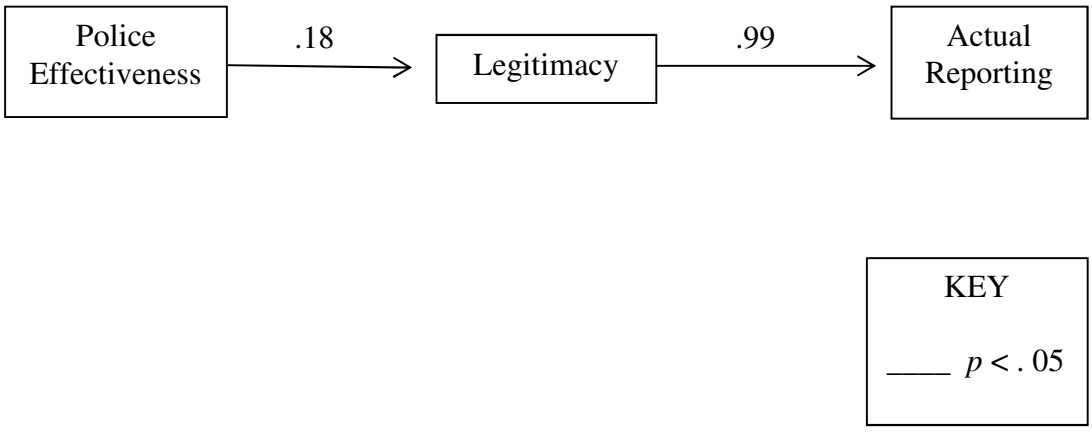


Table 9. *Correlations between Incident-Specific, Social, Historical, and Cognitive Factors and Actual Reporting*

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Actual Reporting	--	.26*	-.02	.32**	.31**	.01	-.16	.12	-.28**	-.19+	-.20+	.33**
(2) Crime Seriousness		--	.11	.15	.32**	.08	.16	.10	-.12	.20+	.04	.20+
(3) Other Witnesses Present			--	-.17	-.04	-.26*	.01	-.16	.02	-.19+	-.20+	-.04
(4) Discussion with Co-Witness				--	.15	.14	.20+	.04	-.12	-.10	-.06	.07
(5) Discussion with Parent					--	.17	.08	-.04	-.18	< -.01	-.07	.20+
(6) Advised to Report						--	.22+	.03	.13	-.01	.06	.26*
(7) Discouraged to Report							--	.23*	.36**	.07	.03	-.05
(8) Feared Retaliation								--	.33**	.26*	-.04	.07
(9) Feared "Snitch" Label									--	.28*	.28*	-.35**
(10) Exposure to Violence										--	.47***	-.14
(11) Delinquency											--	-.21+
(12) Moral Duty to Report												--

Note. $p < .10^{+}$; $^{*}p < .05$; $^{**}p \leq .01$; $^{***}p \leq .001$

caregivers about the crime after it occurred (n = 55) were more likely to report the incident to police compared to those who did not talk to their parents or caregivers (n = 20), χ^2 (1, N = 75) = 7.19, p = .007, r = .31. Approximately 61% of the crimes (n = 46) were witnessed with at least one other person besides the respondent. Having other witnesses present during the crime was not associated with crime reporting, χ^2 (1, N = 75) = .02, p = .88, r = -.02. However, talking with a co-witness after the crime occurred was positively associated with reporting. Individuals who talked to their co-witness (if they had one) were more likely to report the crime to police than those who did not talk to their co-witness, χ^2 (1, N = 46) = 7.56, p = .006, r = .32. Contrary to the results reported by Greenberg et al. (2004), being advised to or discouraged from reporting was not associated with actual reporting, χ^2 (1, N = 75) = .01, p = .90, r = .01 and χ^2 (1, N = 74) = 1.77, p = .18, respectively. The relationship between being discouraged to report and actual reporting behavior was not statistically significant, however there was a small effect size, r = -.16. The bivariate relationship shows that those who were discouraged from reporting were less likely to actually do so. The relationship between fear of retaliation by the perpetrator or an associate of the perpetrator and crime reporting was not statistically significant, t(73) = -1.03, p = .31, and was not in the predicted direction. The effect size measuring the bivariate relationship between fear of retaliation and crime reporting was small, r = .12. Last, individuals who reported the crime were less fearful about being labeled a "snitch" (M = 1.60, SD = .94) compared with those who did not report the crime to police (M = 2.19, SD = 1.05), t(73) = 2.53, p = .01, r = -.28.

Exposure to Violence and Delinquency. Both lifetime exposure to violence and involvement in delinquent or criminal activities (or at least disclosure of such behaviors) was very low in this sample. Out of a possible score of 16 on the exposure to violence measure (with higher scores representing more exposure), the mean was .33 (*SD* = .18). Additionally, out of a possible score for 19 on the delinquency measure (with higher scores representing more involvement in delinquency), the mean was .22 (*SD* = .15). Regardless, exposure to violence and self-reported delinquency had marginally statistically significant associations with crime reporting. Specifically, individuals were marginally less likely to report crimes to police when they had more exposure to violence during their lifetimes, $t(72) = 1.67$, $p = .10$, $r = -.19$. Additionally, individuals who had engaged in more delinquent behaviors during their lifetimes were marginally less likely to report crimes, $t(72) = 1.75$, $p = .09$, $r = -.20$.

Moral Duty to Report. Crime reporting was positively associated with viewing the act of reporting as a moral duty. Specifically, reporters were more likely to perceive crime reporting as a moral imperative (*M* = 2.82, *SD* = .66) compared with non-reporters (*M* = 2.34, *SD* = .73), $t(73) = -3.00$, $p = .004$.

A series of logistic regressions were conducted to examine which incident-specific, social, and cognitive factors explained the most variance in crime reporting behavior. Following the guidelines outlined by Green (1991), the appropriate number of predictor variables used in the analyses was determined by using the equation, $N > 50 + 8m$, where m is the number of independent variables (see also Van Voorhis and Morgan, 2007). Thus, three predictor variables could appropriately be used for each logistic

regression given the small sample size in the present study (n = 75). The variables for this analysis were selected on theoretical grounds and because they were shown to have a significant association with the outcome variable on their own. The variables were grouped into categories: (a) incident-specific factors, (b) social factors, and (c) historical and cognitive factors. The results and statistical details (β, SE, and p) for each of these models are listed in Table 10.

The first logistic regression model examined incident-specific factors on the decision to report. The incident-specific factors included in this model were the victim-offender relationship (stranger vs. non-stranger), the presence of other witnesses, and perceived crime seriousness. The victim-offender relationship and the presence of other witnesses variables could also be considered social factors. Given that victim-offender relationship and the presence of other witnesses could be categorized as either incident-specific or social factors, they were classified as the former. The reason for this was because of data-analytic constraints (i.e., the limited number of variables that could be included in each model). If they had been categorized as social factors, there would not have been enough independent variables to run a model with incident-specific features and too many independent variables to be able to run a model with all of the social factors. The full model was significant, χ^2 (3, N = 75) = 10.79, p = .01. Crimes that were perceived as more serious were more likely to be reported. Crimes that were committed by perpetrators known to the victim/witness were reported less often to the police than those committed by perpetrators who were strangers. The presence of other witnesses at the crime was not associated with crime reporting.

Table 10. *Logistic Regression Examining Incident-Specific, Social, Historical, and Cognitive Factors associated with Crime Reporting*

Variable	*Exp(B)*	*SE*	*p*
Model using Incident-Specific Factors			
Victim-Offender Relationship	.29	.55	.03
Other Witnesses Present	.80	.52	.67
Crime Seriousness	2.86	.53	.007
Model using Social Factors			
Discussion with Parent or Co-Witness	6.42	.73	.01
Fear Retaliation	1.77	.28	.04
Fear “Snitch” Label	.49	.30	.02
Model using Historical and Cognitive Factors			
Exposure to Violence	.27	1.53	.40
Delinquency	.24	1.88	.45
Moral Duty to Report	2.53	.38	.02

The second logistic regression examined social factors on the decision to report. The social factors included in this model were discussion with either a parent or co-witness, fear of retaliation, and fear of being labeled a "snitch." The full model was significant, χ^2 (3, N = 75) = 18.49, p = .001. Compared with reporters, non-reporters were less likely to have discussed the crime with a parent/caregiver or co-witness after the incident occurred. They were also less likely to report if they feared being labeled a snitch. Contrary to expectations, individuals were more likely to report crimes to police if they feared retaliation. Individuals who feared retaliation may have been more likely to report crimes to police in an attempt to seek protection

The last logistic regression examined historical and cognitive factors on the decision to report. The factors included in this model were prior exposure to violence, previous engagement in delinquent behaviors, and perceptions regarding the moral duty to report crimes to police. The full model was significant, χ^2 (3, N = 74) = 10.76, p = .01. Individuals who perceived crime reporting as a moral duty were more likely to report the incident to police. Exposure to violence and delinquency were not associated with crime reporting.

Summary. In summary, the results suggest that the decision to report is influenced by a host of incident-specific, social, and cognitive factors. Consistent with Hypothesis 2, witnesses/victims were less likely to report crimes to police when: (a) they knew the perpetrator of the crime; (b) they perceived the crime as not serious, (c) they did not fear retaliation; (d) they fear being labeled a "snitch;" and, (e) they do not view crime reporting as a moral duty. Also, discussing the crime with a parent/caregiver or co-

witness was positively related to actual reporting. Contrary to predictions, the presence of other witnesses, exposure to violence, and delinquency were not related to actual reporting.

Satisfaction with Reporting Decision

Satisfaction with the reporting decision was evaluated. Non-reporters (M = 2.11, SD = .91) were more likely to express regret with their decision than reporters (M = 1.39, SD = .72), $t(73) = 3.78$, $p < .001$.

Discussion

There were two key findings across the present study. First, consistent with previous studies (Murphy & Cheney, 2012; Reisig et al., 2007; Sunshine & Tyler, 2003a; Tankebe, 2009, 2013; Tyler & Fagan, 2008), people's perceptions regarding the legitimacy of the police were associated with their general willingness to report crime and this relationship was robust.

Second, the relation between legitimacy and reporting was complex. There was a bivariate relationship between legitimacy and actual reporting (r = .30) and it was in the expected direction. However, there was not a direct association between perceptions of legitimacy and actual reporting in the path analysis. Rather, the relation between legitimacy and actual reporting was mediated by general willingness to report. There was a strong association between people's general willingness to report and their actual behavior. Those who reported the target crime did express a greater general willingness to report crime to the police. It is possible that respondents were simply forecasting their future reporting behavior based on what they had previously done. Thus, it is not clear

how general willingness is specifically related to actual reporting. Additionally, the present study cannot provide any identifiable clues as to the causal mechanisms by which general willingness might work as a mediator between perceptions of legitimacy and actual reporting given the cross-sectional design.

The relationship between legitimacy, willingness, and reporting will need to be disentangled in a longitudinal study. For instance, general willingness to report could be assessed at Wave 1 and actual reporting behavior at Wave 2. There are, of course, challenges to this approach. For example, this design assumes that there will be enough participants who have witnessed or been victims of crimes between waves to conduct appropriate analyses. To deal with this issue, the longitudinal study should be conducted with a population at high risk for victimization (e.g., citizens living in lower socioeconomic neighborhoods).

The lack of a direct relationship between legitimacy and actual reporting in the present study may have occurred because individuals' attitudes could have changed over time. Attitudes regarding the legitimacy of the police were assessed after the crime reporting decision had already been made. There was some evidence to suggest that people who experienced the crime more recently had more positive attitudes about the police. For instance, the bivariate relationship between legitimacy and reporting was only significant for those who experienced the crime within the previous six months (r = .55, p = .002, n = 29).

An additional possibility is that there were some negative consequences of reporting that could have undermined the relationship between legitimacy and reporting.

Perhaps reporting the crime led to some type of additional police contact that made those witnesses view the police less positively. For example, if the police appeared unconcerned or disrespectful it may have led to a reduction in positive attitudes as measured at the time of the study. If this were the case, crime reporters should have lower scores on the legitimacy measure. However, the data in the present study showed that reporters had higher legitimacy scores. Thus, there was no evidence in the present study that the lack of relationship between perceptions of legitimacy and actual reporting was due to negative consequences of reporting.

Other conceptualizations of legitimacy that were not assessed in the present study may be related to crime reporting. For example, Tankebe (2013) has suggested that legitimacy hinges on police lawfulness, distributive justice, procedural justice, and police effectiveness. Additionally, he has proposed that obligation to obey the police is better conceptualized as a consequence, rather than as a component, of perceiving the police as legitimate authority figures. Thus, it is possible that other conceptualizations of legitimacy may have shown a relationship with actual crime reporting.

The results underscore the importance of incident-specific, social, and cognitive factors on people's decisions to report crimes to the police. People were less likely to report crimes committed by people they knew, less likely to report the crime if they perceived the crime as less serious, less likely to report if they did not fear retaliation, and less likely to report if they feared being labeled a "snitch." Contrary to prior research (Greenberg & Beach, 2004), being advised or discouraged to report was not associated with crime reporting; however, people were less likely to report if they had not talked

about it with a parent, caregiver, or co-witness. These results are consistent with a broader literature demonstrating the importance of social factors on the reporting of crime (see Burgess & Holstrom, 1975, and Greenberg & Beach, 2004, for a review). However, the present results should not be interpreted as showing causal relationships. One cannot conclude from the results that discussion of the crime with others, for example, *caused* witnesses and victims to report it. In addition, conclusions about the contributions of multiple social factors relative to each other are constrained given data-analytic restrictions.

There was also evidence to suggest that witnesses feel a sense of social obligation to other members of a community. People who reported the crime were more likely to cite a moral duty to notify the police. In general, reporters were also more satisfied with their decision than non-reporters. Specifically, non-reporters expressed more regret about their decision than reporters. The results of the present study, however, do not provide any information regarding the source of this regret.

In conclusion, the results suggest that citizens' perceptions of legitimacy are be related to their general willingness to report crime. However, the relationship between perceptions of legitimacy and actual reporting is likely to be complex and nuanced. The legitimacy-reporting relationship may be mediated by other factors, such as general willingness. Additionally, actual reporting is associated with a host of incident-specific and social factors.

CHAPTER 5: GENERAL DISCUSSION

The general discussion is divided into four sections: (1) a summary of the current state of research on witness participation; (2) a summary of the results from the present two studies; (3) implications of the results for public policy and practice; and, (4) limitations of the present studies and a discussion of future research directions.

Current State of Research on Witness Participation

Witnesses often choose not report crimes to police (Block, 1974; Hart & Rennison, 2003; Rand & Catalano, 2007; Skogan, 1976; Tarling & Morris, 2010; Truman & Rand, 2010; Truman & Langton, 2014). Past research shows that decisions to report and participate in the criminal justice process are the product of a complex interplay between cognitive, social, and cultural factors (e.g., Greenberg & Beach, 2004). One factor of particular interest to the present studies was citizens' attitudes about legal authorities, specifically perceptions regarding the legitimacy of police.

Previous research has shown that people's attitudes about the legitimacy of the police are strongly associated with their general willingness to report crimes to police (Murphy & Cherney, 2012; Reisig et al., 2007; Sunshine & Tyler, 2003a; Tankebe, 2009, 2013; Tyler & Fagan, 2008). The relationship between legitimacy and general willingness is very robust: It has been found with telephone interviews (Reisig et al., 2007; Sunshine & Tyler, 2003a; Tyler & Fagan, 2008), face-to-face interviews (Reisig et al., 2012; Tankebe, 2009, 2013), and mail-in surveys (Sunshine & Tyler, 2003a; Murphy & Cherney, 2012). However, studies examining this relationship have typically employed broad, hypothetical questions to assess willingness to report. No previous

published studies have assessed how respondents interpret these non-specific questions and if their willingness to report varies depending on the crime conditions that they imagine. Additionally, the limited available evidence – one study by Reisig et al. (2012) – suggests that the legitimacy-willingness relationship may vary (and in some cases, may not be statistically significant) when the circumstances of the crime are specified.

Results regarding the relationship between perceptions of legitimacy and actual crime reporting is mixed. Several studies show either statistically significant, but small, relationships, or no statistically significant relationships, between citizens' perceptions of police effectiveness and their reporting of crime (Bennett & Wiegand, 1994; Hawkins, 1973; Goudriaan et al., 2006). The relationship between perceptions of legitimacy – or components of legitimacy (e.g., trust in the police) – and the actual reporting of crime has been examined less frequently than police effectiveness.

The findings from two studies assessing the relationship between perceptions of legitimacy and reporting are conflicting. Kochel et al. (2013) assessed reporting decisions made by victims of burglary, robbery, and assault in Trinidad and Tobago. Victims who viewed the police as more legitimate (defined as an obligation to obey the police or the law) were marginally more likely to report crimes, $b = .52$, $SE = .29$, $p = .07$. On the other hand, a study by Kääriäinen and Sirén, (2011) showed that trust in police – a component of legitimacy – was associated with the reporting of property crimes (i.e., theft), but not violent crimes (i.e., assaults) in Finland. Specifically, there was a positive, but non-statistically significant relationship between trust in the police and the reporting of property crimes, χ^2 (2, $N = 1142$) = .61, $p = .74$. Surprisingly, there

was an *inverse* relationship between trust in police and the reporting of violent crimes, χ^2 (2, N = 541) = 9.15, p = .01. Citizens with greater trust in the police were actually *less* likely to report crimes than those who did not trust the police. Thus, the relationship between perceptions of legitimacy and reporting varied depending on the crime type.

The evidence from the extant literature suggests that the relationship between perceptions of legitimacy, willingness to report, and actual reporting behavior is likely to be nuanced and complex. The relationship between perceptions of legitimacy and actual reporting may vary depending on incident-specific or social factors, such as the crime type. Previous work has not examined the relationships between perceptions of legitimacy, willingness, and actual reporting within the same design. The present studies were designed to disentangle the relationships between these variables.

Summary of the Present Results

Study 1 addressed five research questions: (1) what crime scenarios do respondents imagine when asked broad, hypothetical questions about general willingness?; (2) do the specific crime conditions imagined influence general willingness, and if so, how?; (3) does the legitimacy-willingness relationship vary depending on the crime conditions imagined?; (4) does general willingness vary when the circumstances of the crime are explicitly specified?; and, (5) does the legitimacy-willingness relationship vary when the circumstances of the crime are explicitly specified?

The results suggest that respondents interpret broad, hypothetical questions by imagining specific crime scenarios. For instance, they were more likely to imagine themselves as a witness rather than a victim and the crime as a property rather than

violent offense. The results are consistent with previous studies showing that when presented with ambiguous information about a crime, people use schemas to imagine specific features of the offense (Greenberg et al., 1998; Stalans & Diamond, 1990; Stalans & Lurgio, 1990). Respondents in the present study may have relied on their schema for a "typical crime" when asked the general willingness questions.

Willingness to report varied depending on the specific conditions imagined and based on explicitly defined features of the crime. For example, willingness to report was stronger when respondents envisioned a violent rather than a property crime. These results extend the work of Brank et al.'s (2007) study with middle school children to college aged students and suggest that willingness to report varies depending on the conditions of the crime scenario.

The results also showed that the legitimacy-willingness relationship was robust, regardless of whether respondents imagined the crime features or they were explicitly provided with them. Individuals who viewed the police as more legitimate authorities were more likely to express willingness to report crimes. However, consistent with the results by Reisig et al. (2012), the strength of the legitimacy-willingness relationship varied depending on the circumstances of the crime.

Study 2 addressed two research questions: (1) what is the relationship between perceptions of legitimacy, general willingness, and actual reporting?; and, (2) what incident-specific, social, and cognitive factors are associated with the decision to report actual crimes to police?

Consistent with process-based theories of policing and social control, perceptions of legitimacy were associated with general willingness to report. Witnesses and victims who perceived the police as more legitimate were more willing to report crimes in the future. However, perceptions of legitimacy were not directly associated with actual reporting behavior. It should be noted that the results showed a statistically, non-significant, but positive association between perceptions of legitimacy and actual reporting. The effect size between legitimacy and actual reporting was moderate, $r = .30$. Thus, the direction of the relationship was consistent with process-based theories and with the results of Kochel et al. (2013). One cannot rule out the possibility that with more participants in the study the relationship between legitimacy and actual reporting may have emerged.

The results underscore the importance of incident-specific, social, and cognitive factors on people's decisions to report crimes to police. Victims and witnesses were less likely to report crimes committed by perpetrators they knew, less likely to report if they perceived the crime as not serious, less likely to report if they did not fear retaliation, less likely to report if they feared being labeled a "snitch," less likely to report if they did not talk to a parent, caregiver, or co-witness after the crime occurred, and less likely to report when they did not perceive crime reporting as a moral duty. The results suggest that these factors play a larger role in determining citizens' decisions to report than perceptions of police legitimacy.

Implications for Police Practice and Procedure

The most pessimistic and potentially unproductive message one might draw from the present results is that citizens' perceptions of the police have no effect on their actual reporting of crime. However, it is important to emphasize that the present results speak only to a specific aspect of compliance, namely the voluntary reporting of crime. It is important to distinguish between those who decide not to report crime versus those who actively defy legal authorities by refusing to answer questions, or by falsely asserting that no crime occurred or that they did not in fact witness it. There is no evidence that the cases of non-reporting in the present study were based on willful non-cooperation or false statements. This is not to suggest that failures to report crime are not serious; however, they may represent a special case of non-compliance.

Legitimacy also has other important values in the criminal justice system that were not examined in the present studies. Crime reporting is but one aspect of citizen cooperation with the law (see Tyler & Huo, 2002 for review). None of the results obtained in the current study speak to other issues related to citizen cooperation or compliance with the law (e.g., civic engagement). Tyler and Fagan (2008) suggest that willingness to report crimes to police and citizen compliance "appear to be largely distinct from one another, suggesting that the reasons why people obey the law may differ from why they may actively engage with police in the social regulation of crime" (p. 249). Therefore, the lack of relationship between legitimacy and crime reporting may be unique and may not extend to other aspects of citizen compliance.

Legitimacy may be associated with crime reporting in ways that were not revealed

in the present study. Previous studies show that questions measuring legitimacy attitudes are correlated with other attitude measures, such as general willingness to report crimes (Murphy & Cheney, 2012; Reisig et al., 2007, Reisig et al., 2012; Sunshine & Tyler, 2003a; Tankebe, 2009, 2013; Tyler & Fagan, 2008). However, it is not known whether these questions capture key aspects of legitimacy that are related specifically to crime reporting. There may be components of legitimacy that do predict crime reporting but were not assessed in the present study (see, for example, Beetham, 1991).

Even though a relationship between legitimacy and actual reporting was not found in the present study, there are still benefits to implementing programs that focus on strengthening trust and cooperation between the police and community. Community-oriented policing efforts have been shown to increase reporting rates in some contexts (Schnebly, 2008); however, there is a dearth of empirical research that has examined the relation between police involvement in community-orienting policing and citizen reporting. Given the design of the present study, one cannot rule out the possibility that community-oriented policing would increase reporting rates, irrespective of the lack of relationship between legitimacy and reporting.

Limitations and Future Directions

The limitations of both studies and avenues for future research will be discussed next. There is an important limitation of Study 1. Simply put, crimes in the real-world are more complex than what was represented in the present study. For the purposes of the present study, the legitimacy-willingness relationship was examined by varying at most two circumstantial or social factors. However, witnesses and victims do not

experience all of these factors in isolation. The present study could not examine how more complicated combinations of these factors influenced the legitimacy-willingness relationship.

There are five important limitations of Study 2. First, the sample size was relatively small. Given the small number of subjects included in the study, the analyses that could be conducted were restricted. For example, it restricted the number of variables that could be included in the path model and regression analyses. With the addition of more subjects, circumstantial and social factors could be included in the path analysis. This would more directly allow examination of the effect of these factors on actual reporting compared with perceptions of legitimacy. For example, a larger sample size would have enabled examination of whether the relationship between perceptions of legitimacy and actual reporting varied depending on the crime type, as it did in the Kääriäinen and Sirén (2011) study. In addition, a larger array of incident-specific and social variables could have been included within the same regression analysis.

Second, the use of a cross-sectional, rather than a longitudinal, design precludes causal conclusions. Previous studies that have examined the relationship between legitimacy and general willingness to report crime also have this limitation with one exception (Tyler & Fagan, 2008). Future research on the relationship between legitimacy and actual crime reporting, beyond the first step taken here, must use a longitudinal, panel design in order to establish the causal mechanisms underlying decisions to report crime to the police.

Future studies should also use a panel design in order to examine the development

of attitudes regarding the police. A cross-sectional study by Fagan and Tyler (2005) showed that adolescents tend to become increasingly disengaged and cynical about legal authorities over time. The use of a longitudinal design would enable researchers to directly examine the factors that influence the development of these attitudes and how these developmental changes affect the trust-participation relationship.

The third limitation of Study 2 is its restricted population – college students between the ages of 17 and 35 who had been a victim or witness to a serious crime in the previous two years. Although this is a limitation, the age group in the present study is one that is consistently shown to be at high risk for victimization and involvement in crime (Hart & Colvalito, 2011; Sloan & Fisher, 2011). It is also important to put aside stereotypes of "college kid" research respondents in terms of greater privilege or higher socioeconomic status, as UCR admits a large proportion of minority, first-generation, and low-income students (University of California, Office of the President, 2012; Selingo, Carey, Pennington, Fishman, & Palmer, 2013).

The sample had other limitations. There was little variation in legitimacy attitudes. This is a limitation in other studies as well. There have not been any studies to date that have focused specifically on individuals who *deeply* distrust the police: teenagers (Fagan & Tyler, 2005) and members of minority groups (Schuck et al., 2008; Tyler, 2005), who are likely to be exposed to, and influenced by "Stop Snitching" messages, who may have had, or know peers who have had, negative interactions with the police. Studies that have not focused on these groups may be missing the very low end of the trust distribution; and it may be that that is the end of the distribution where the

relationship between perceptions of legitimacy and the reporting of crime is the strongest.

The fourth limitation is that satisfaction with the reporting decision could not be assessed in detail. The study showed that individuals who reported the crime to police were less likely to express regret with their decision compared with non-reporters. The reasons underlying the regret are unclear. Reporting decisions may have consequences independent of the criminal justice system. On the one hand, research has shown a relationship between the disclosure of important, emotional experiences and mental and physical health (Finkenauer & Rimé, 1998; Greenberg & Stone, 1992; Pennebaker & Chung, 2011; Pennebaker, Zech, & Rimé, 2001). On the other hand, involvement in the criminal justice system may require a large investment of time and energy, and may be a source of anxiety, disappointment, depression, and frustration. Thus, future research should examine the personal, psychological, and health outcomes that are associated with reporting decisions – for those who report to the police, those who tell others, and for those who tell no one.

Fifth, the present study did not distinguish between compulsory versus voluntary participation with the police. The distinction is about whether the citizen contacts the police or the police contact the citizen. In both cases, the citizen state that they reported the crime to police and yet, the two cases are quite different. People who spoke to the police, only because the police contacted them, might respond that they are not particularly willing to report crime to the police in general, consistent with the fact that they did not take the initiative to report *this particular crime*, but also respond that they *did* report this particular crime to the police when the police asked them about it directly.

Such cases of compelled reporting would suggest a negative relationship between willingness and actual reporting. By combining those cases with the cases of people who indicated a general willingness to report, and did in fact voluntarily report a crime, the two subsets of cases might cancel each other out, implying (incorrectly) no relationship between the intent to report crime and the actual reporting of crime.

Despite these limitations, the results of the present studies show that attitudes about the police were associated with respondents' expressed willingness to report crime, but were not associated with their actual reporting behavior. The relationships between perceptions of police legitimacy, attitudes and intentions regarding the reporting of crime, and the actual reporting of crime are likely to be nuanced and complex. The unraveling of these complexities remains for future research.

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Appendix A

Legitimacy

A total of thirty items assessed perceptions of legitimacy. Legitimacy was broken into three indices: (1) obligation, (2) trust and confidence in the police, and (3) affective attitudes towards and identification with the police. Respondents used a 4-point scale to indicate the degree to which they agreed or disagreed with each item (1 = strongly disagree, 2 = somewhat disagree, 3 = somewhat agree, 4 = strongly agree).

Eleven items evaluated perceptions of citizen *obligation* to abide by police directives and obey the law: "Overall the police are a legitimate authority and people should obey the decision that police officers make;" "I feel that I should accept the decisions made by police, even if I think they are wrong;" "I feel that I should do what the police tell me to do even when I don't understand the reasons for their decisions;" "It is difficult to break the law and keep one's self-respect;" "I feel that I should do what the police tell me to do even when I disagree with their decisions;" "I feel that I should do what the police tell me to do even when I don't like the way they treat me;" There are times when it is ok to ignore what the police tell you to do"(R); "Sometimes you have to bend the law for things to come out right" (R); "The law represents the values of people in power, rather than the values of people like me" (R); "People in power use the law to try to control people like me" (R); and, "The law does not protect my interests" (R).

Ten items assessed citizen *trust and confidence* in the actions taken by the police: "I have confidence that the police in my city can do their job well;" "Most police in my city do their job poorly" (R); "I trust the leaders of the police department to make

decisions that are good for everyone in the city;" "The basic rights of citizens in my city are well protected by the police;" "Most police in my city treat people with respect;" "Most police in my city treat some people better than others" (R); "The police care about the well-being of everyone they deal with;" "The police are often dishonest" (R); "Some of the things the police do embarrass our city" (R); and, "There are many things about the police department and its policies that need to be changed" (R).

Nine items evaluated *affective attitudes and identification* with the police: "If I talked to most of the police officers who work in my neighborhood, I would find they have similar views to my own on many issues;" "My background is similar to that of many of the police officers who work in my neighborhood;" "I can usually understand why the police who work in my neighborhood are acting as they are in a particular situation;" "I generally like the police officers who work in my neighborhood;" "If most of the police officers who work in my neighborhood knew me, they would respect my values;" "Most of the police officers who work in my neighborhood would value what I contribute to my neighborhood;" "Most of the police officers who work in my neighborhood would approve of how I live my lifestyle;" "I am proud of the work of the police;" and, "I agree with many of the values that define what the police stand for."

Procedural Justice

Eleven items assessed perceptions of procedural justice. Respondents used a scale ranging from 1 to 4 to indicate the degree to which they agreed or disagreed with each item (1 = strongly disagree, 2 = somewhat disagree, 3 = somewhat agree, 4 = strongly agree).

Procedural justice was broken into two indices: (1) the quality of police decision-making, and (2) the quality of interpersonal treatment. Five items assessed the *quality of police decision-making*: "The police accurately understand and apply the law;" "The police make their decisions based on facts, not their personal biases and opinions;" "The police try to get the facts in a situation before deciding how to act;" "The police give honest explanations for their actions to the people they deal with;" and, "The police apply the rules consistently to different people."

Six items evaluated the *quality of interpersonal treatment*: "The police treat people with dignity and respect;" "The police are not concerned about my problems" (R); "The police respect people's rights;" "The police consider the views of people involved;" "The police take account of the needs and concerns of the people they deal with;" and, "The police do not listen to your views before deciding how to handle problems." (R)

Police Effectiveness

Respondents used a 4-point scale (1 = very ineffective, 2 = somewhat ineffective, 3 = somewhat effective, 4 = very effective) was used to rate five items related to police effectiveness in fighting and controlling crime in their neighborhoods: "How effective have the police been at controlling violent crime in your city?; "How effective have the police been at controlling gang violence in your city?;" "How effective have the police been at controlling drugs in your city?;" "How effective have the police been at controlling gun violence in your city?;" and, "How effective have the police been at controlling burglary in your city?"

Self-Reported Delinquency

Respondents responded “yes, this has occurred during my lifetime” or “no, this has not occurred during my lifetime” to nineteen questions assessing lifetime involvement in delinquent or criminal activities: “Have you ever been in a physical fight that involved hitting, slapping, punching, beating, stabbing, or shooting another person?;” “Have you ever threatened someone with a weapon or threatened to beat them up?;” “Have you ever performed some kind of unwanted sexual conduct on another person that was forced or that the other person felt pressured into?;” “Have you ever attempted to engage in some kind of unwanted sexual conduct, but was stopped before it could occur?;” “Have you ever attempted to or actually stolen a motor vehicle that did not belong to you?;” “Have you ever robbed someone (i.e., stolen or attempted to steal something that didn't belong to you. Could have been completed through threats, using violence, or a weapon)?;” “Have you ever engaged in burglary (i.e., breaking and entering)?;” “Have you ever engaged in theft (i.e., stolen or attempted to steal something without threat, violence, or a weapon. Examples include pickpocketing, purse-snatching, and stealing a bicycle.)?;” “Have you ever shoplifted (i.e., took property from a store that you didn't pay for)?;” “Have you ever set illegal fires?;” “Have you ever used illegal drugs (e.g., marijuana, heroin, cocaine, ecstasy)?;” “Have you ever sold illegal drugs (e.g., marijuana, heroin, cocaine, ecstasy)?;” “Have you ever engaged in underage drinking?;” “Have you ever engaged in public drunkenness?;” “Have you ever driven a vehicle under the influence of alcohol?;” “Have you ever damaged property (e.g., destroyed, used graffiti/pens) that did not belong to you?;” “Have you ever cheated on a

school test or assignment?;" "Have you ever knowingly bought stolen goods?;" and, "Have you ever carried a hidden weapon (e.g., knife, gun, blunt object)?"

Exposure to Violence

Participants responded "yes" or "no" to 16 items adapted from the My ETV structured interview (Selner-O'Hagan et al., 1998): "In your whole life, have you ever seen someone else get chased when you thought that they could really get hurt?;" "In your whole life, have you ever been chased when you thought that you could really get hurt?;" "In your whole life, have you ever seen someone else get hit, slapped, punched, or beaten up? This does not include when they were playing or fooling around;" "In your whole life, have you ever been hit, slapped, punched, or beaten up? Again, this does not include when you were playing or fooling around;" "In your whole life, have you ever seen someone else get attacked with a weapon, like a knife or bat? This does not include getting shot or shot at." "In your whole life, have you ever been attacked with a weapon, like a knife or bat? Again, this does not include getting shot or shot at;" "In your whole life, have you ever seen someone else get shot? This doesn't include seeing someone shot with a BB gun or any type of toy gun, like a paintball gun or air rifle;" "In your whole life, have you ever been shot? Again, this does not include being shot with a BB gun or any type of toy gun;" "In your whole life, have you ever seen someone else get shot AT, but not actually wounded? Again, do not include shots from a BB gun or any type of toy gun;" "In your whole life, have you ever been shot AT? Again, do not include shots from a BB gun or any type of toy gun;" "In your whole life, have you ever heard gunfire nearby (other than what you have already stated)? This does not include hearing gunfire

while hunting or at a shooting range;" "In your whole life, have you ever seen someone else get killed as a result of violence, like being shot, stabbed, or beaten to death?" "In your whole life, have you ever seen someone else get sexually assaulted, molested, or raped?;" "In your whole life, have you ever been sexually assaulted, molested, or raped?;" "In your whole life, have you ever seen someone else threaten to seriously harm another person. This includes being threatened with a weapon;" and, "In your whole life, has someone ever threatened to seriously hurt you? Again, this includes being threatened with a weapon."