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ABOUT THE JOURNAL

Criminology, Criminal Justice, Law & Society (CCJLS), formerly *Western Criminology Review (WCR)*, is the official journal of the Western Society of Criminology. This peer-reviewed journal builds on the mission of its predecessor by promoting understanding of the causes of crime; the methods used to prevent and control crime; the institutions, principles, and actors involved in the apprehension, prosecution, punishment, and reintegration of offenders; and the legal and political framework under which the justice system and its primary actors operate. Historical and contemporary perspectives are encouraged, as are diverse theoretical and methodological approaches. *CCJLS* publishes theoretical and empirical research on criminology, criminal justice, and criminal law and society; practice-oriented papers (including those addressing teaching/pedagogical issues); essays and commentary on crime, law, and justice policy; replies and comments to articles previously published in *CCJLS* or *WCR*; book and film reviews; and scholarly article reviews.

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Paul Tappan Award Winner Keynote Address:

The Justice Gap and the Promise of Criminological Research¹

Richard A. Leo

University of San Francisco

Keywords:

justice, criminology, police interrogation, false confession, wrongful conviction

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In the little world in which children have their existence,” says Pip in Charles Dickens’s Great Expectations, “there is nothing so finely perceived and finely felt, as injustice.... But the strong perception of manifest injustice applies to adult human beings as well. What moves us, reasonably enough, is not the realization that the world falls short of being completely just—which few of us expect—but that there are clearly remediable injustices around us which we want to eliminate.

Amartya Sen, *The Idea of Justice* (2009, p. vii).

It is always an honor to receive an academic award, especially a career achievement award, because it serves as a recognition of the many lonely, and often invisible, hours, days, weeks, and years put into conducting and writing up research, as well as, presumably, the quality and impact of the research itself. But in highlighting the achievements of the individual, it is easy to lose sight of the influence of the collective. Very few things in life are done in isolation. Academic research and writing are no

different: Scholarship is always a collective endeavor (Merton, 1965).

Like all of us, I owe a major debt of gratitude to those who have raised and socialized me into the discipline of criminology. In my career, I have had the good fortune to be mentored by a number of outstanding criminologists (such as Frank Zimring, Jerome Skolnick, Malcolm Feeley, and the late Sheldon Messinger), and later to be surrounded by excellent colleagues (such as Joan Petersilia, the late Gilbert Geis, Henry Pontell, Cheryl Maxson, Michael

Gottfredson, and Elliott Currie), who have all been recipients of the Paul Tappan Award from the Western Society of Criminology. This is one, among many, of the reasons that receiving this Award is such an honor.

The research and scholarship of my former criminological mentors and colleagues, as well as that of virtually all (if not all) members of this Society, shares at least one common, unifying feature. Regardless of our methodological approach or theoretical bend, through our scholarship we all seek, in one form or another, to help the criminal justice system become more just—or, in the words of Nobel Prize-winning economist Amartya Sen, to eliminate “the clearly remedial injustices around us” (Sen, 2009, p. vii). I call this the justice gap. It can be defined as the difference between the promise of justice inherent in our formally democratic, legal institutions and the actual delivery of justice in these institutions on the ground.

So much of our best criminological scholarship seeks to understand and close the justice gap. Consider research on prisons and the effects of incarceration (Clear, 2009, 2014; Calavita & Jenness, 2013; Simon, 2014), plea bargaining and lower criminal courts (Feeley, 1979; Vera Institute, 1974), capital punishment (Baldus, Woodworth, & Pulaski, 1990; Kaplan, 2012; Zimring, 2003), juvenile justice (Feld, 1999; Zimring, 2005), and policing (Marx, 1988; Skolnick, 1966; Zimring, 2012), to take just a few examples. These studies tend to be purpose-driven and problem-based (Miller, 2011), and they demonstrate the promise that criminological research holds to expose the justice gap in specific legal practices and institutions and to lead the way to a better understanding of the reforms necessary to close (or at least mitigate) it. Criminologists are in a unique position to expose and study the justice gap in the American legal system. Bringing methodologically rigorous empirical research skills and data-driven knowledge to bear on these problems is our comparative advantage. Put differently, we are uniquely situated to identify and help redress the justice gap.

In the remainder of this article, I will discuss how several justice gaps in the American criminal justice system have motivated the arc of my research career so far. More specifically, I will describe my empirical interest in American police interrogation, false confessions and the wrongful conviction of the innocent, as well as my applied efforts to improve the quality and delivery of justice in these areas. Like so many of us, I am interested in studying a set of related problems in order to contribute to a collective body of knowledge that may help a variety of constituencies—researchers, criminal justice officials, the media, policy-makers, and ordinary individuals—better

understand why certain justice gaps occur and what can be done to remedy them. My hope is that this essay will offer broader scholarly lessons beyond the study of American interrogation, false confessions to police, and the erroneous conviction of the innocent.

The (Coercive) Interrogation and (False) Confession of Bradley Page

In the fall of 1984, I was a senior at the University of California, Berkeley. So was Bradley Page, though I did not know him. On November 4, 1984, his girlfriend Roberta “Bibi” Lee, also a Berkeley undergraduate, disappeared after jogging in the Redwood Regional Park in the Oakland Hills. She would be found murdered—from three massive breaks at the back of her skull—in the same area five weeks later on December 9, 1984. Although there was zero evidence linking Page to the crime, the Oakland police detectives investigating the homicide assumed from the moment that Lee’s body was found that Page had murdered Lee—for no other reason than that he was the victim’s boyfriend, as one of the detectives would later explain on national television—and asked him to come in for questioning on the very next day. After more than 16 hours of sustained, high pressure interrogation and custody, Page eventually gave a vague, confused, and speculative confession statement to murdering Bibi Lee as well as to raping her dead body. A jury would eventually acquit Page of first degree and second degree intentional murder at his first trial in 1986, but he was later convicted of voluntary manslaughter at his second trial in 1988 and served almost three years in state prison.

Numerous social scientists have analyzed Page’s case and concluded that there is overwhelming evidence that his confession statement is false, and no evidence either corroborating it or linking him to the crime has been found (Davis, 2010; Leo & Ofshe, 1998, 2001; Pratkanis & Aronson, 1991; Wrightsman & Kassin, 1993). After extensively analyzing primary source documents in Page’s case, I came to believe Page’s confession statement to be completely false (Leo & Ofshe, 1998, 2001)—“bogus” in the words of the famous social psychologist Elliott Aronson (“Eye to Eye with Connie Chung,” 1994)—and Page to be completely innocent of Lee’s murder, for which he was wrongfully convicted and incarcerated. Page’s confession statement contains numerous indicia of unreliability that we now know are the hallmarks of a false confession (see Leo, Neufeld, Drizin, & Taslitz, 2013). It is replete with provable errors, physical impossibilities, contradictions, inconsistencies, implausibilities, and incoherencies; it does not fit the known crime facts; it contains no details that only the true perpetrator and not the police would have known;

and it is not corroborated. Instead, Page's confession statement is contradicted and all but rendered impossible by the physical evidence. Consider, for example, the following facts:

1. Page stated that Lee died after he slapped her with the back of his hand, causing her to fall and become unconscious as a trickle of blood came from her nose. But the backhanded slap described in Page's confession statement could have not killed Lee because it could not have caused Lee's three large skull fractures, which neither the police nor Page were aware of at the time of his interrogation. (It was subsequently learned that Lee's death resulted from three separate blows to the head by a sharp-edged weapon.)
2. Page stated that he had sex with Bibi Lee's dead body (a police theory at the time) after killing her, but due to rigor mortis, it was later learned that this would have been impossible, and no semen was found during the autopsy.
3. Page stated that he made love to the dead body on the blanket taken from his car, but the blanket contained no evidence of any sexual activity; no bloodstains (which would have been expected from Lee's massive, and massively bloody, head injuries); no signs of having been washed; and no hairs from Lee.
4. Page stated that he used a spare hubcap that was in his vehicle to bury Lee, but the fibers and soil from the hubcap did not match either the fibers of Lee's clothing or the soil where Lee's body was found.
5. Page stated that he dragged Lee's body more than one-hundred yards before burying it, but no trail of blood was found by the 16 explorer scouts and six dog tracking teams who, beginning the day after Lee's disappearance, spent hundreds of hours combing the area where Lee's body was eventually found.

In addition, Oakland police and Alameda County prosecutors ignored eyewitness evidence pointing to another suspect in Lee's murder. A witness, Karen Marquardt, reported seeing a bearded man abducting a woman into a van near the Redwood Regional Park on the day Lee disappeared and subsequently identified Lee as the person she saw struggling with her apparent abductor. Twelve days later, a bloodhound picked up Lee's sent where Marquardt had observed the struggle and then lost it, which is consistent with a woman

having gotten into vehicle there. Moreover, in 1994, the CBS news show "Eye to Eye" identified Michael Ihde as Lee's probable murderer. As Richard Ofshe and I wrote more than a decade ago,

Ihde, a convicted multiple murderer, had told fellow prisoners in the State of Washington that he had killed several women in the San Francisco Bay Area, one of whom was non-White, a decade earlier. Ihde's appearance resembled the man seen hustling Lee into a van shortly before her disappearance. Lee was within Ihde's territory at the time, and her killing matched the victim type and murder-rape pattern Ihde had established. When Alameda County Sheriff's Department learned of Ihde, they re-opened several contemporaneous murder files and discovered that Ihde's DNA matched semen found in a woman who had been kidnapped (as was Lee according to eyewitness testimony), murdered (as was Lee), and raped (as Lee might have been) in the East Bay only three weeks after Lee's murder. (Leo & Ofshe, 2001, pp. 357–358)

Ihde not only fit the description of Lee's abductor, thus corresponding to Marquardt's identification, but also worked as a delivery man at the time and had access to a van only six miles away from where Lee was killed. But Alameda County prosecutors disregarded the evidence implicating Ihde and refused to re-open the case.

Whether or not Michael Ihde killed Bibi Lee, there was never any meaningful evidence that Bradley Page killed her or any meaningful evidence corroborating his bogus confession². So why did Bradley Page falsely confess? The answer: psychologically deceptive, manipulative and coercive police pressures and strategies that, over the course of a lengthy interrogation, scared and confused a naive young man into (a) losing confidence in his memory; (b) temporarily believing that he might have blacked out and killed his girlfriend, if he killed her, despite having no memory of doing so, and then (c) speculating about how this might have hypothetically happened to satisfy the demands of his overbearing interrogators. From 10:12 A.M. on December 10, 1984 to 2:15 A.M. on December 11th, Page was repeatedly interrogated at the Oakland Police Department, first by two detectives (Sergeants Harris and Lacer), then by a polygraph examiner (Sergeant Furry), then by the Sergeants Harris and Lacer again, and finally by Alameda County Deputy District attorney Aaron Payne and Inspector Kevin Leong (see Davis, 2010 for a fuller account). Parts of Page's non-

confrontational interviews were recorded, but all of the interrogations, including the post-polygraph interrogation, were not.

During the many hours of unrecorded interrogation, Sergeants Harris and Lacer repeatedly accused Page of murdering Lee; repeatedly attacked his denials as false, implausible, or impossible; and repeatedly lied to him about overwhelming evidence that they pretended to have, claiming it objectively and irrefutably established his guilt beyond any doubt³. Sergeants Lacer and Harris repeatedly told Page that he failed the polygraph test, that eyewitnesses had seen him kill Bibi Lee, and that his fingerprints were found at the crime scene—none of which was true. Harris and Lacer's guilt-presumptive, accusatory interrogation techniques caused Page to lose confidence in the reliability of his memory, to doubt himself and to entertain the possibility that he may have blacked out and killed Lee without realizing it. When Page asked how he could possibly have killed Lee without any memory of it, Harris and Lacer repeatedly suggested that he had repressed his memory of the murder. If he tried to remember hard enough, it would come back. As the lengthy interrogation wore on, Page became more confused, exhausted, desperate, and uncertain.

Lacer and Harris continued to pressure Page by threatening him with the specter of spending the rest of his life in prison if he did not admit to killing Lee and supply them with details of the crime. Convinced by Lacer and Harris that he must have somehow killed Lee and frightened that he would go to prison for the rest of his life if he did not come up with a story that satisfied them, Page began to confabulate an account of how he might have killed Lee even though he possessed no memory of the event. Harris and Lacer persuaded Page to imagine a scenario in which he could have killed Lee. After Lacer asked Page to close his eyes and try to remember what happened, Page began to describe the images that came to him but could not remember a time, place, or motive for these images. According to Page, the detectives then educated him about the details of the crime—such as the location of Bibi Lee's body, the location of her head and nose injuries, and the method of burial—and they rehearsed his account of the crime. As Davis (2010) notes,

Page reported that the officers would suggest something, and he would imagine their suggestion, or they would ask if something happened and he would put it into the scenario (such as if he had a branch or rock, or she had hit her head on something—things the detectives would have expected based on what they knew of the location of the body

and the nature of her injuries). Page later described the process as using his imagination to construct a story, much like making a movie, recounting how he would have killed her if he had killed her. (p. 2016)

After hours of unrecorded interrogation, Harris and Lacer turned the tape recorder back on, walked Page through the rehearsed story, and recorded Page's confession statement.

Page retracted his confession statement almost immediately after it was given, first to the district attorney who subsequently questioned him at the Oakland Police Department and later to detectives Harris and Lacer. But Page's retraction did not matter. As social science studies would many years later show, once prosecutors decided to introduce Bradley Page's confession statement into evidence against him at trial, it was almost certain that he would be convicted (see Drizin & Leo, 2004; Gould, Carrano, Leo, & Hail-Jares, 2014; Kasson, 2012). It did not matter that his confession statement was vague, hypothetical, inconsistent, contradictory, and not supported by any independent evidence. As the United States Supreme Court noted in the same year as Page's first trial (*Colorado v. Connelly*, 1986),

No other class of evidence is so profoundly prejudicial.... Triers of fact accord confessions such heavy weight in their determinations that the introduction of a confession makes the other aspects of trial in court superfluous, and the real trial, for all practical purposes, occurs when the confession is obtained. (p. 182)

Notwithstanding the "profoundly prejudicial" impact of confession evidence on jurors, Bradley Page was a victim out of time. He had falsely confessed, but the modern social science of false confessions had not yet arrived—Kassin and Wrightman's (1985) seminal book chapter that described, typologized, and, in effect, defined a field of study would be published one year after Bradley Page had falsely confessed. He was convicted years before the DNA revolution in criminal justice would set free scores of innocent prisoners, some on death row, who had been convicted of crimes they did not commit (Garrett, 2011; Scheck, Neufeld, & Dwyer, 2000;). Bradley Page was falsely accused and factually innocent, but he did not have a conceptual language with which to persuasively express his innocence. Bradley Page's lawyers had not been trained in how to analyze police interrogation techniques, understand the psychology of police coercion and contamination, or how to put on a false confession defense—because criminal defense

attorneys in that era had yet to develop an understanding of these areas. In 1984, it was still widely assumed that “false confessions are made by freaks and occur freakishly” (Ayling, 1984, p. 1155). Bradley Page’s defense attorney hired one of the leading social psychologists in the world, but Professor Elliott Aronson, like virtually all social psychologists of his era, had never actually studied the psychology of police interrogations or interrogation-induced false confessions.

In other words, in a historical sense, the deck was stacked against Bradley Page. Had Page falsely confessed one decade later in 1994, there would have been a thriving social science research literature on interrogation, coercion, and police-induced false confessions; his defense attorney would have been schooled in interrogation techniques and how to put on a false confession defense; and numerous academic experts would have been available to testify at his trial, explaining to the jury how and why psychological police interrogation methods can, and sometimes do, elicit false confessions from the innocent (Gudjonsson, 1992; Ofshe, 1989; Wrightsman & Kassir, 1993).

Although I did not know Bradley Page, his case has stayed with me over the years. When he “confessed” to Oakland Police, we were the same age and in the same graduating class at UC Berkeley, though Page would not graduate. Under different circumstances, I could have been Bradley Page. The Oakland Police had not only coerced a false confession statement from Page that led to an erroneous arrest, prosecution, conviction, and incarceration but also, as in so many other cases of false confession and wrongful conviction (see Leo & Ofshe, 1998; Warden & Drizin, 2009), the police interrogators who coerced his false statements on December 10, 1984 had essentially wrecked his life (Page, 1998). And, if Michael Ihde really did kill Bibi Lee, the Oakland police effectively enabled the true perpetrator to rape and murder other young women.

Inside the Interrogation Room

Bradley Page was still in prison in the fall of 1990 when I entered the graduate program in Jurisprudence and Social Policy Program at U.C. Berkeley. My research interests at the time were focused broadly on the history and practice of police interrogation in America and its implications for law, public policy, and justice. More specifically, I was interested in whether police interrogation in routine felony cases resembled the kinds of interrogations described in appellate court opinions, particularly those by the United States Supreme Court—in what used to be called the study of law in action (Gould & Barclay,

2012). In my initial library research on the subject, I was surprised to learn that there was not a thriving empirical criminological literature describing and analyzing what occurred, on the ground, in police interrogation rooms across the country. In fact, there was almost no empirical criminological research describing and analyzing what occurred, on the ground, in police interrogation rooms across the country. It was this void that my doctoral dissertation sought to contextualize and fill.

My doctoral research involved the analysis of archival and historical materials (e.g., government commission reports, newspaper stories, court cases, early police interrogation training manuals and materials, etc.), as well as contemporary case documents (e.g., police interrogation tapes and transcripts, police reports, pre-trial and trial transcripts, contemporary police interrogation training manuals and materials, etc.). Perhaps most significantly, I contemporaneously observed 122 felony interrogations inside the Oakland Police Department—yes, the same police department that had wrung a false confession from Bradley Page less than a decade earlier—as well as another 60 felony interrogations by videotape in the nearby Hayward and Vallejo Police Departments. I also attended and participated in numerous introductory police interrogation training courses and seminars across the country, including one inside the Criminal Investigation Division of the Oakland Police Department, and I interviewed many police interrogators, criminal suspects, and criminal justice officials, such as police managers, prosecutors, and judges. Among those I interviewed were Sergeant Ralph Lacer, who (along with Sergeant Harris) had extracted Bradley Page’s false confession statement, and Kenneth Burr, who had successfully prosecuted Bradley Page.

The empirical findings and analysis of my doctoral research (Leo, 1994) were published in several articles preceding and following the dissertation itself (Leo, 1992, 1996a, 1996b). I was the first criminologist to contemporaneously observe and analyze, both qualitatively and quantitatively, the interrogation process in America (Leo, 1996a, 1996b; see also Feld, 2013). The results of this empirical research carried implications for understanding and closing the justice gap. My big picture analysis documented and analyzed a historical shift from physically coercive interrogation techniques to psychologically manipulative and deceptive ones that had occurred over the course of the twentieth century, as well as a corresponding normative shift in public attitudes and a significant increase in police professionalism. This research also documented smaller changes such as the various psychological

interrogation techniques police used (e.g., accusation, confrontation with false evidence, overcoming denials, appeals to self-interest, minimization, etc.); which interrogation techniques were more and less successful at eliciting admissions and confessions; overwhelming police compliance with the letter of the required fourfold Miranda warnings, but nevertheless various police strategies to induce criminal suspects to waive their Miranda rights; that most criminal suspects waive their Miranda rights and consent to interrogation, though this is far less likely among suspects with prior criminal records (especially felony records); and that most routine felony interrogations last less than an hour in length (Leo, 1992, 1996a, 1996b). This research was designed to shed light on one of the earliest and most influential stages of the legal process.

Shortly after publishing my doctoral research, I turned my attention to the social psychology of police interrogation and confession-taking to explain the process of influence and decision-making through which police elicit admissions and confessions. After analyzing more than 150 case files, Richard Ofshe and I argued that police interrogation in America is a sequential two-step process of psychological pressure and persuasion (Ofshe & Leo, 1997a, 1997b). In the first step of interrogation the investigator usually relies on several well-known interrogation techniques and strategies to persuade the suspect that he is caught and thus powerless to change his situation. The investigator is likely to accuse the suspect of committing the crime, cut off the suspect's denials, block any objections, and interrupt or ignore the suspect's assertions of innocence. If the suspect offers an alibi, the interrogator will attack it as inconsistent, contradicted by all of the case evidence, implausible or simply impossible. One of the most effective techniques used to persuade a suspect that his situation is hopeless is to confront him with seemingly objective and incontrovertible evidence of his guilt, whether or not any actually exists (Drizin & Leo, 2004; Moston, Stephenson & Williamson, 1992; Ofshe & Leo, 1997a).

Richard Ofshe and I first named this technique the false evidence ploy (Ofshe & Leo, 1997a), and it has since been studied extensively by psychologists (Forrest, Woody, Brady, Batterman, Stastny, & Bruns, 2012; Kassin & Keichel, 1996; Kebbell, Hurren, & Roberts, 2006; Nash & Wade, 2009; Perillo & Kassin, 2011; Redlich & Goodman, 2003; Woody & Forrest, 2009; Woody, Forrest, & Yendra, 2014; Wright, Wade, & Watson, 2013). American police often confront suspects with fabricated evidence, such as nonexistent eyewitnesses, false co-conspirator testimony, false fingerprints, make-believe videotapes, and fake polygraph results (as in the case

of Bradley Page). The purpose of false evidence ploys is to convince the suspect that the state's case against him is so compelling and irrefutable that his guilt can be established beyond any conceivable doubt and therefore that arrest, prosecution, and conviction are inevitable. These techniques—accusation, cutting off of denials, attacking alibis, confronting the suspect with real or non-existent evidence—are often repeated as the pressures of interrogation escalate. They are designed to increase a suspect's anxiety and reduce a suspect's subjective self-confidence that he will survive the interrogation without being arrested, effectively conveying that there is no way out of his predicament (Davis & O'Donohue, 2004; Leo, 2008; Ofshe & Leo, 1997a, 1997b).

The second step of interrogation is designed to persuade the suspect that the benefits of compliance and confession outweigh the costs of resistance and denial—and thus that the only way to improve his otherwise hopeless situation is by admitting to some version of the offense. In this part of the interrogation process, the investigator presents the suspect with inducements that communicate that he will receive some personal, moral, communal, procedural, material, legal, or other benefit if he confesses, but that he will experience some corresponding personal, moral, communal, procedural, material, legal, or other cost if he fails to confess. Ofshe and Leo (1997a, 1997b) have suggested that these inducements can be arrayed along a continuum ranging from appeals to morality (at the low end) to appeals to how the criminal justice system is likely to react to the suspect's denial versus confession (in the mid-range) to implicit or explicit promises or suggestions of leniency and threats or harsher treatment or punishment (at the high end). Interrogators sometimes communicate—either indirectly through pragmatic implication (Davis, Leo, & Follette, 2010; Horgan, Russano, Meissner, & Evans, 2012; Kassin & McNall, 1991; Klaver, Lee, & Rose, 2008; Narchet, Meissner, & Russano, 2011) or more explicitly—that the suspect will receive more lenient treatment if he confesses but harsher punishment if he does not (Leo, 2008). In some cases, the coercion involves blatant threats of punishment or harm (such as threats of longer prison sentences, the death penalty, or harm to one's family members) and/or explicit promises of leniency and/or immunity (such as offers of outright release from custody, counseling instead of prison, or reduced charges).

Many suspects confess only after the techniques and strategies of the interrogator have persuaded them that—in light of what they perceive to be their limited options and the consequences of choosing denial over silence—confession is the most rational course of action (Leo, 2008; Ofshe & Leo, 1997a, 1997b; Yang,

Madon, & Gyuill, in press). The psychological logic of modern interrogation is that it makes the irrational—admitting to a crime that will likely lead to punishment—appear rational, especially if the suspect believes that he is inextricably caught or perceives his situation as hopeless and cooperating with authorities as the only viable course of action (Davis & O'Donohue, 2004; Leo, 2008; Ofshe & Leo, 1997a, 1997b). One of the reasons that the techniques of psychological interrogation are so effective is that they exert relentless time pressure on suspects to confess (Ofshe & Leo, 1997a, 1997b), interrupting their ability to evaluate the actual long-term consequences of making or agreeing to a confession by focusing instead on the immediate perceived benefits of escaping the short term pressures of interrogation (Madon, Gyuill, Scherr, Greathouse, & Wells, 2012; Madon, Yang, Smalarz, Gyuill, & Scherr, 2013; Ofshe & Leo, 1997a, 1997b; Yang et al., in press).

False Confessions: Causes and Consequences

An Overview

I have studied the psychological dynamics of interrogation techniques and their influence on the perceptions and decision-making of suspects inside police stations in order to better understand how and why they lead to true and false confessions in the real world (Leo, 2008). A number of social psychologists have subsequently studied how and why certain interrogation techniques lead to both true and false confessions inside the laboratory, including the greater risk that some techniques pose for eliciting false confessions (Horgan et al., 2012; Houston, Meissner, & Evans, 2014; Narchet et al., 2011; Russano, Meissner, Narchet, & Kassin, 2005). False confessions, and the wrongful convictions of the innocent that they sometimes spawn, profoundly implicate the justice gap in American criminal justice. As the Bradley Page case has illustrated, false confessions and wrongful convictions raise deeply troubling questions: In a system with so many constitutional rights and procedural safeguards—a Fifth Amendment privilege against self-incrimination and proof “beyond a reasonable doubt,” among them—how is it possible for an innocent suspect to be made to falsely incriminate himself and then be erroneously convicted? Why does it happen so often? And what can be done to prevent, or at least minimize, false confessions and the wrongful convictions they create?

While Bradley Page may have seemed like an outlier or a “freak” (Ayling, 1984) in 1984, in the last 30 years empirical social scientists have documented

and analyzed hundreds of police-induced false confessions in the American criminal justice system (Bedau & Radelet, 1987; Drizin & Leo, 2004; Garrett, 2011, in press; Gould et al., 2014; Gross, Jacoby, Matheson, Montgomery, & Patel, 2005; Gross & Shaffer, 2012; Leo & Ofshe, 1998; Warden, 2003) and even more erroneous convictions of the innocent (Innocence Project, 2014; University of Michigan Law School, 2014). We now know the stories of hundreds of Bradley Pages in the American criminal justice system, many of whom have suffered more lengthy incarceration before their eventual release from prison. Moreover, in many of these cases, police elicited false confessions from multiple innocent suspects (Drizin & Leo, 2004). Given the historical values that underlie our system of criminal justice, there is arguably no worse error in the American legal system than the erroneous conviction of the innocent (Findley, 2008; Leo, 2008). And yet, as many as a quarter of all wrongful convictions involve interrogation-induced false confessions (Innocence Project, 2014). As the late Welsh White (2001) pointed out, “as soon as a police-induced false confession is accepted as true by the police, the risk that the false confession will lead to a wrongful conviction is substantial” (p. 185).

Despite their prevalence, false confessions to police remain highly counter-intuitive to most people, as multiple recent surveys of the American public have shown (Blandon-Gitlin, Sperry, & Leo, 2011; Chojnacki, Cicchini, & White, 2008; Costanzo, Shaked-Schroer, & Vinson, 2010; Henkel, Coffman, & Dailey, 2008; Leo & Liu, 2009). Most people are highly skeptical that an innocent person could be made to falsely confess during police interrogation and thus tend to assume that all confessions are true unless the suspect has been physically tortured or is mentally ill. Elsewhere I have called this the Myth of Psychological Interrogation (Leo, 2001). The recent survey studies mentioned above bear this out.

The myth of psychological interrogation persists for several reasons. Most people do not know what occurs during interrogation because they have not experienced it firsthand and do not know anyone who has. They are also not familiar with how police are trained to interrogate suspects or with studies that describe actual interrogation practices. Most people are therefore unaware of the highly deceptive, manipulative, and stress-inducing techniques and strategies that interrogators use to elicit confessions. Nor are they typically aware that these methods have led to numerous false confessions. Further, most people assume that individuals do not act against their self-interest or engage in self-destructive or irrational behaviors. They therefore assume that an innocent person would not confess to a crime he did not commit

unless there existed an understandable reason (like physical coercion or mental illness) for doing so.

Thus, most people cannot imagine that they themselves would falsely confess, especially to a serious crime. More generally, most people fall prey to what social psychologists have called the fundamental attribution error (Davis & Leo, 2010; Ross, 1977): the tendency to discount situational influences on behavior and assume that behavior is fundamentally voluntary, even in coercive environments. It is perhaps not surprising to social psychologists that most people continue to view false confessions as irrational; cannot understand why an innocent person would make one; and believe that they themselves could never be made to falsely confess to a crime, especially a serious crime, in response to psychological interrogation pressures.

Though highly counter-intuitive, false confessions are not a unitary phenomenon; they are caused by a combination of factors. Synthesizing the existing psychological and legal literature at the time, Kassir and Wrightsman (1985) first suggested three distinct types of false confession, which they called voluntary, coerced-compliant, and coerced-internalized false confessions. While other scholars have since critiqued, modified, and extended this typology (for a review, see Leo, 2008), what remains important to understand is that there are three conceptually distinct psychological processes at work in the production and elicitation of false confessions. Voluntary false confessions occur in the absence of police interrogation and are thus explained by the internal psychological states or needs of the confessor (Gudjonsson, 2003) or by external pressure brought to bear on the confessor by someone other than the police (McCann, 1998). Compliant false confessions are given in response to police coercion, stress, or pressure in order to achieve some instrumental benefit—typically, either to terminate and thus escape from an aversive interrogation process, to take advantage of a perceived suggestion or promise of leniency, or to avoid an anticipated harsh punishment. Internalized or persuaded false confessions are given in response to police interrogation methods that cause the innocent suspect to doubt his memory and become persuaded—usually temporarily—that it is more likely than not that he committed the crime, despite having no memory of doing so (Ofshe & Leo, 1997a). Bradley Page's was a persuaded false confession (Davis, 2010; Leo & Ofshe, 1998, 2001).

There is no single cause of false confession, and there is no single logic or type of false confession. Police-induced false confessions result from a multistep process and sequence of influence, persuasion and compliance, and they usually involve psychological coercion. Police are more likely to elicit

false confessions under certain conditions of interrogation, however, and individuals with certain personality traits and dispositions are more easily pressured into giving false confessions. In the remainder of this section, I analyze the three sequential errors that occur in the social production of every false confession: (a) investigators misclassify an innocent person as guilty; (b) they next subject him to a guilt-presumptive, accusatory interrogation that invariably involves lies about evidence (false evidence ploys) and often the repeated use of implicit or explicit promises and threats as well; and (c) once they have elicited a false admission, they pressure the suspect to provide a post-admission narrative that they jointly shape, often supplying the innocent suspect with the (public and non-public) facts of the crime. I have previously referred to these as the misclassification error, coercion error, and contamination error, respectively (Leo, 2008; Leo & Drizin, 2010).

The Sequence and Snowballing of Error

The Misclassification Error. The first mistake occurs when detectives erroneously decide that an innocent person is guilty. As Davis and Leo (2006) pointed out, “the path to false confession begins, as it must, when police target an innocent suspect. . . . Once specific suspects are targeted, police interviews and interrogations are thereafter guided by the presumption of guilt” (pp. 123–124). Whether to interrogate or not is therefore a critical decision point in the investigative process. Absent a classification error at this stage, there will be no false confession or wrongful conviction. Put another way, if police did not erroneously interrogate innocent people, they would never elicit false confessions. Because misclassifying innocent suspects is a necessary condition for all police-induced false confessions and wrongful convictions, it is both the first and arguably the most consequential error police will make.

Several related factors lead police to mistakenly classify an innocent person as a guilty suspect. The first stems from poor and erroneous interrogation training. American police are trained, falsely, that they can become human lie detectors capable of distinguishing truth from deception at high rates of accuracy (Inbau, Reid, Buckley, & Jayne, 2013; Kassir, 2006). Detectives are taught, for example, that subjects who avert their gaze, slouch, shift their body posture, fidget, touch their nose, adjust or clean their glasses, chew their fingernails, or stroke the back of their head are likely to be lying and thus guilty. Subjects who are guarded, uncooperative, and offer broad denials and qualified responses are also believed to be deceptive and therefore guilty (Inbau et al., 2013; Leo, 2008). These types of behaviors and responses are merely a few examples from lengthy laundry lists

of so-called non-verbal and verbal “behavior symptoms” of lying that police manuals, training materials, and trainers instruct detectives to look for when deciding whether to prejudge a suspect as guilty and subject him or her to an accusatorial interrogation (Masip, Barba, & Herrero, 2012; Masip & Herrero, 2013; Masip, Herrero, Garrido, & Barba, 2011; Vrij, Mann, & Fisher, 2006). Although police trainers usually mention that no single non-verbal or verbal behavior is, by itself, indicative of lying or truth-telling, they nevertheless teach detectives that they can reliably infer whether a subject is deceptive if they know how to interpret his body language, mannerisms, gestures, and style of speech. In the absence of any supporting evidence, some police trainers boast of extraordinarily high accuracy rates: The Chicago-based firm Reid & Associates, for example, claims that detectives can learn to accurately discriminate truth and deception 85% of the time (Kassin, 2006).

The deeply ingrained police belief that interrogators can be trained to be highly accurate human lie detectors is both wrong and dangerous (Leo, 2008). It is wrong because it is based on inaccurate speculation that is explicitly contradicted by the findings of virtually all the published scientific research on this topic (Bond & Depaulo, 2006; Depaulo, Lindsay, Malone, Muhlenbruck, Charlton, & Cooper, 2003; Vrij, 2008; Vrij, Fisher, Mann, & Leal, 2010). Social scientific studies have repeatedly demonstrated across a variety of contexts that people are poor human lie detectors and thus highly prone to error in their judgments about whether an individual is lying or telling the truth. Most people get it right at rates that are no better than chance (i.e., 50%) or the flip of a coin (Bond & Depaulo, 2006; Hartwig & Bond, 2011; Vrij, 2008). Social scientific studies have also shown that even professionals who make these judgments on a regular basis—such as detectives, polygraph examiners, customs inspectors, judges, and psychiatrists (Ekman & O’Sullivan, 1991)—typically cannot distinguish truth-tellers from liars at levels significantly greater than chance. Even specific studies of police interrogators have found that they cannot reliably distinguish between truthful and false denials of guilt at levels greater than chance; indeed, they routinely make erroneous judgments (Hartwig, Granhag, Stromwall, & Vrij, 2004; Kassin & Fong, 1999; Masip, Alonso, Garrido, & Herrero, 2009; Vrij, 2004). The method of behavior analysis taught by Reid and Associates has been found empirically to actually lower judgment accuracy, leading Kassin and Fong (1999) to conclude that “the Reid technique may not be effective—and, indeed, may be counterproductive—as a method of distinguishing truth and deception” (p. 512). Empirical studies have shown that detectives and other professional lie

catchers are accurate approximately 45–60% of the time (Kassin & Gudjonsson, 2004), with a mean of 54% (Bond & DePaulo, 2006).

The reasons police interrogators misclassify the innocent as guilty so often are not hard to understand. There is no human behavior or physiological response that is unique to deception, and therefore no tell-tale behavioral signs of deception or truth telling (Lykken, 1998). The same behaviors, mannerisms, gestures and attitudes that police trainers believe are the deceptive reactions of the guilty may just as easily be the truthful reactions of the innocent. As Kassin and Fong (1999) note, “part of the problem is that people who stand falsely accused of lying often exhibit patterns of anxiety and behavior that are indistinguishable from those who are really lying” (p. 501). Police detectives acting as human lie detectors are therefore relying on cues that are simply not diagnostic of human deception (Vrij et al., 2006; Vrij et al., 2010; Masip et al., 2011). Instead, the manuals are replete with false and misleading claims—often presented as uncontested fact—about the supposed behavioral indicia of truth-telling and deception (Hirsch, 2014). At least one prominent police trainer, Reid & Associates president Joseph Buckley, has insisted with a straight fact that “we don’t interrogate innocent people” (Kassin & Gudjonsson, 2004, p. 36). As Alan Hirsch has pointed out (2014), “extensive evidence belies the suggestion that Reid-trained investigators interrogate only the innocent” (p. 821).

This police-generated mythology of the interrogator as human lie detector is not only wrong but also dangerous for the obvious reason that it can easily lead a detective to make an erroneous judgment about an innocent suspect’s guilt based on little or nothing more than his “body language” and then mistakenly subject him to an accusatorial interrogation that can lead to a false confession. For example, police in Escondido, California, decided that Michael Crowe was lying (and thus guilty of murdering his sister Stephanie) in large part because they believed he initially seemed “curiously unemotional” and thus, unlike other members of his family, was not grieving his sister’s death normally (White, 2001). In Illinois, McHenry County Sheriff’s deputies decided that Gary Gauger was lying to them and thus guilty of brutally slaying both of his parents because of what they perceived to be his unemotional response to the bloody murders (Lopez, 2002). Peekskill, New York detectives believed that Jeffrey Deskovic was lying and thus guilty of killing his high school classmate not because he was unemotional but because he was overly distraught at the classmate’s death (Leo & Drizin, 2010). Crowe, Gauger, and Deskovic each falsely confessed to murders and were subsequently proven innocent (though Deskovic spent 16 years in

prison and Gauger spent two years in prison, on death row). The Crowe, Gauger, and Deskovic cases are not exceptional: The social science research literature is replete with case examples of innocent suspects who were coercively interrogated (and ultimately confessed falsely) only after they were misclassified as guilty because detectives misinterpreted their nonverbal behavior and demeanor and thereafter erroneously presumed their guilt (Drizin & Leo, 2004).

The human lie detector mythology is dangerous not only because it leads police to mistakenly classify the innocent as guilty on the flimsiest of criteria (see Risinger & Loop, 2002) but also because it significantly increases detectives' confidence in the accuracy of their erroneous judgments (Kassin & Fong, 1999; Masip et al., 2009; Meissner & Kassin, 2002, 2004). Misplaced confidence in one's erroneous judgments is a significant concern in investigative police work because the stakes—an innocent person's freedom and reputation, the escape of the guilty and their ability to commit additional crimes—can be so high. Erroneous prejudgments of deception lead to what Meissner and Kassin (2002, 2004) called the investigator response bias (i.e., the tendency to presume a suspect's guilt with near or complete certainty). The overconfident police detective who mistakenly decides an innocent person is a guilty suspect will be far less likely to investigate new or existing leads, evidence, or theories of the case that point to other possible suspects. As Kassin and others have demonstrated, erroneous but confidently-held prejudgments of deception also increase the likelihood that the investigators will subject the innocent suspect to an accusatorial interrogation in which they seek to elicit information and evidence that confirms their prejudgments of guilt and discount information and evidence that does not (Hill, Memon, & McGeorge, 2008; Kassin, Goldstein & Savitsky, 2003; Meissner & Kassin, 2002, 2004).

The findings of Kassin and his colleagues are consistent with my own field observations. Detectives sometimes refer to their superior human lie detection skills as stemming from a "sixth sense" common to police detectives (Leo, 1996c). The unfortunate effect is that interrogators will sometimes treat their hunch (or "gut reaction") as somehow constituting direct evidence of the suspect's guilt and then confidently move into an aggressive interrogation. In our analysis of both proven and disputed confession cases, I have found that interrogators are often more certain in their belief in a suspect's guilt than the objective evidence warrants and tenaciously unwilling to consider the possibility that their intuition or behavioral analysis is wrong (Drizin & Leo, 2004; Leo & Ofshe, 1998). These tendencies may be reinforced by an

occupational culture that teaches police to be suspicious generally and does not reward them for admitting mistakes or expressing doubts in their judgments (Simon, 1991, 2012; Skolnick, 1966).

The human lie detector mythology is but one of many mythologies that can lead police officers to misclassify an innocent person as a suspect and then to subject that suspect to the kinds of confrontational and aggressive interrogation techniques that can lead to false confessions. A second mythology is that trained police officers can create a detailed and accurate profile of a suspect by reading police reports and examining crime scene photographs and other evidence related to the crime (Leo & Drizin, 2010). For example, nearly three months after Lori Roscetti was raped and murdered in 1986, Chicago detectives contacted FBI profiler Robert Ressler, and asked him to create a profile of the man or men who had murdered Roscetti. Ressler opined that the crime was committed by three to six young Black males between the ages of 15 and 20, who had previously been incarcerated and had lived close to the spot where Roscetti's body had been found (Drizin & Leo, 2004). With Ressler's profile in hand, Chicago detectives focused in on three 17-year-old Black teenagers, Marcellus Bradford, Larry Ollins, and Omar Saunders, all of whom lived in the nearby housing project and had done time as juveniles. On January 27, 1987, detectives brought the boys in for questioning. More than 15 hours after the start of the interrogations, police emerged with a confession from Bradford which implicated himself; Larry Ollins; and Larry's 14-year-old, learning-disabled cousin, Calvin, whom police then picked up and grilled until he confessed (Drizin & Leo, 2004).

Although early DNA testing of semen samples taken from the victim should have excluded the boys as the rapists, all four defendants were convicted at trial. Larry Ollins, Calvin Ollins, and Omar Saunders were sentenced to life in prison while Marcellus Bradford, who agreed to plead guilty and testify against Larry Ollins, was promised and received a 12-year sentence. In 2001, new DNA testing conclusively failed to link any of the defendants to the Roscetti rape and murder, and they were subsequently set free. Shortly afterwards, police arrested Duane Roach and Eddie "Bo" Harris, who gave videotaped confessions to raping and murdering Roscetti and were later linked to the crime through fingerprint and DNA testing. Roach and Harris also did not fit Ressler's profile. Harris, who was 46 years old at the time of his arrest, would have been 31 when Roscetti was killed, while Roach, who was 38 years old at the time of his arrest, would have been 23. Police believe that Roach and Harris were the only two men involved in the crime,

not six as Ressler had theorized (Possley, Ferkenhoof, & Mills, 2002).

Apart from their training, experience, and job culture, police detectives are—just like everyone else—subject to normal human decision-making biases and errors that cause people to believe things that are not true (Gilovich, 1991). These decision-making biases include the tendency to attribute more meaning to random events than is warranted, to base conclusions on incomplete or unrepresentative information, to interpret ambiguous evidence to fit one's preconceptions, and to seek out information that confirms one's pre-existing beliefs while discounting or disregarding information that does not. All of these normal human decision-making biases are not only amply present in police work, but also compounded by the adversarial nature of American criminal investigation (Findley & Scott, 2006; Leo, 2008). As I have argued elsewhere, police interrogators are not likely to recognize their misclassification errors (Leo, 2013).

The Coercion Error: Coercive Interrogation.

Once detectives misclassify an innocent person as a guilty suspect, they will often subject him to an accusatorial interrogation. This is because getting a confession becomes particularly important when there is no other evidence against the suspect, and typically no credible evidence exists against an innocent but misclassified suspect. Thus detectives typically need a confession to successfully build a case. By contrast, when police correctly classify and investigate the guilty, there is often other case evidence, and so getting a confession may be less important. Interrogation and confession-taking also become especially important forms of evidence-gathering in high-profile cases where there is great pressure on police detectives to solve the crime and no other source of potential evidence to be discovered (Gross, 1996). Hence, the vast majority of documented false confessions cases occur in homicides and high profile cases (Drizin & Leo, 2004; Garrett, 2011, in press; Gross & Shaffer, 2012).

Once interrogation commences, the primary cause of police-induced false confession is psychologically coercive police methods that sequentially manipulate a suspect's perception of this situation, expectations for the future, and motivation to shift from denial to admission (Ofshe & Leo, 1997a). By psychological coercion, we mean either one of two things: police use of interrogation techniques that are believed to overbear a suspect's will—such as promises and threats—and are thus regarded as inherently coercive in psychology and law, or police use of interrogation techniques that, cumulatively, cause a suspect to perceive that he has no choice but to comply with the interrogators' demands. Usually these amount to the

same thing. Psychologically coercive interrogation techniques include some examples of the old third degree, such as deprivations (of food, sleep, water, or access to bathroom facilities, for example), incommunicado interrogation, and inducing extreme exhaustion and fatigue. In the modern era, however, these techniques are rare. Instead, when today's police interrogators employ psychologically coercive techniques, it usually consists of (implicit or express) promises of leniency and threats of harsher treatment. As Ofshe and Leo (1997b) wrote, "the modern equivalent to the rubber hose is the indirect threat communicated through pragmatic implication" (p. 1115). Threats and promises can take a variety of forms, and they are usually repeated, developed, and elaborated over the course of the interrogation. The vast majority of documented false confessions in the post-Miranda era either have been directly caused by or involved promises or threats (Drizin & Leo, 2004; Leo & Ofshe, 1998).

The second form of psychological coercion—causing a suspect to perceive that he has no choice but to comply with the wishes of the interrogator—is not specific to any one technique but may be the cumulative result of the interrogation methods as a whole. The psychological structure and logic of contemporary interrogation can easily produce this effect. The custodial environment and physical confinement are intended to isolate and disempower suspects. Interrogation is designed to be stressful and unpleasant, and it becomes more stressful and unpleasant the more intensely it proceeds and the longer it lasts. Interrogation techniques are meant to cause suspects to perceive that their guilt has been established beyond any conceivable doubt, that no one will believe their claims to innocence, and that by continuing to deny the detectives' accusations, they will only make the situation (and the ultimate outcome of the case against them) much worse. Suspects may perceive that they have no choice but to comply with the detectives' wishes because of their fatigue, being worn down, or simply seeing no other way to escape an intolerably stressful experience. Some suspects—like Bradley Page—come to believe that the only way they will be able to leave is if they do what the detectives say. Others comply because they are led to believe that it is the only way to avoid a feared outcome (e.g., homosexual rape in prison). When suspects perceive there is no choice but to comply, their resulting compliance and confession are, by definition, involuntary and the product of coercion (Ofshe & Leo, 1997a, 1997b).

The Coercion Error: Vulnerable Suspects.

Even though psychological coercion is the primary cause of police-induced false confessions, individuals differ in their ability to withstand interrogation

pressure and thus in their susceptibility to making false confessions (Gudjonsson, 2003). All other things being equal, those who are highly suggestible or compliant are more likely to falsely confess. Individuals who are highly suggestible tend to have poor memories, high levels of anxiety, low self-esteem, and low assertiveness—personality factors that also make them more vulnerable to the pressures of interrogation and thus likely to falsely confess (Kassin, Drizin, Grisso, Gudjonsson, Leo, & Redlich, 2010). Interrogative suggestibility tends to be heightened by sleep deprivation, fatigue, and drug or alcohol withdrawal (Blagrove, 1996; Frenda, Patihis, Loftus, Lewis, & Fenn, 2014; Harrison & Horne, 2000). Individuals who are highly compliant tend to be conflict avoidant, acquiescent, and eager to please, especially authority figures (Gudjonsson, 2003).

But highly suggestible or compliant individuals are not the only ones who are unusually vulnerable to the pressures of police interrogation. So are juveniles and people with intellectual disabilities, cognitive impairments, and mental illness.

Intellectual disability. Intellectual disability (formerly known as mental retardation) is, of course, a cognitive disability that limits a person's ability to learn, process, and understand information (American Psychiatric Association, 2013). Psychologists typically measure a person's cognitive disability through IQ or other intelligence tests. The standard for intellectual disability is an IQ of 70 or below. There are four levels of intellectual disability: mild, moderate, severe, and profound. The vast majority of people with intellectual disabilities (close to 90%) fall into the mild range (Cloud, Shepherd, Barkoff, & Shur, 2002). Because a person's intellectual disabilities may not always be obvious, it can be easy to overestimate his or her intellectual capacity.

The mentally retarded are more likely to confess falsely for a variety of reasons (Clare & Gudjonsson, 1995; Cloud et al., 2002; Conley, Luckasson, & Bouthilet, 1992; Perske, 1991). First, because of their subnormal intellectual functioning—low intelligence, short attention span, poor memory, and poor conceptual and communication skills—they are simple-minded, slow-thinking, and easily confused. They do not always understand statements made to them or the implications of their answers. They often lack the ability to think in a causal way about the consequences of their actions. Their limited intellectual intelligence translates into a limited social intelligence as well: They do not always fully comprehend the context or complexity of certain social interactions or situations, particularly adversarial ones, including a police interrogation. They are not, for example, likely to understand that the police detective who appears to be friendly is really

their adversary, or to grasp the long-term consequences of making an incriminating statement. They are, therefore, highly suggestible and easy to manipulate. They also lack self-confidence, possess poor problem-solving abilities, and have tendencies to mask or disguise their cognitive deficits and to look to others—particularly authority figures—for the appropriate cues to behavior. For all of these reasons, people with intellectual disabilities are highly susceptible to leading, misleading, and erroneous information. It is therefore easy to get them to agree with and repeat back false or misleading statements, even incriminating ones.

Second, as many researchers have noted, the people with intellectual disabilities are eager to please. They tend to have a high need for approval and thus are prone to being acquiescent. They have adapted to their cognitive disability by learning to submit to and comply with the demands of others, especially authority figures (Ellis & Luckasson, 1985; Gudjonsson, Clare, Rutter, & Pearse, 1993). Because of their desire to please, they are easily influenced and led to comply in situations of conflict. Some observers refer to this as "biased responding": people with intellectual disabilities answer affirmatively when they perceive a response to be desirable and negatively when they perceive it to be undesirable. They will literally tell the person who is questioning them what they believe he or she wants to hear. A related trait is the "cheating to lose" syndrome: people with intellectual disabilities eagerly assume blame or knowingly provide incorrect answers in order to please, curry favor with, or seek the approval of an authority figure (Ellis & Luckasson, 1985). It is not difficult to see how their compliance and submissiveness, especially with figures of authority, can lead people with intellectual disabilities to make false confessions during police interrogations.

Third, because of their cognitive disabilities and learned coping behaviors, people with intellectual disabilities are easily overwhelmed by stress. They simply lack the psychological resources to withstand the same level of pressure, distress, and anxiety as individuals whose intellectual functioning fall within normal parameters (Ellis & Luckasson, 1985; Gudjonsson et al., 1993). As a result, they tend to avoid conflict. They may experience even ordinary levels of stress—far below that felt in an accusatorial police interrogation—as overwhelming. They are therefore less likely to resist the pressures of confrontational police questioning and more likely to comply with the demands of their accusers, even if this means knowingly making a false confession. The point at which they are willing to falsely tell a detective what he wants to hear in order to escape an aversive interrogation is often far lower than for

people of typical intellectual functioning, especially if the interrogation is prolonged. There have been numerous documented cases of false confessions from people with intellectual disabilities in recent years (see, e.g., Drizin & Leo, 2004).

Juveniles. Youth is also a significant risk factor for police-induced false confessions (Drizin & Colgan, 2004; Owen-Kostelnik, Reppucci, & Meyer, 2006; Redlich, 2010). Many of the developmental traits that characterize people with intellectual disabilities may also characterize young children and adolescents. Many juveniles too are highly compliant. They tend to be immature, naively trusting of authority, acquiescent, and eager to please adult figures. They are thus predisposed to be submissive when questioned by police. Juveniles also tend to be highly suggestible. Like the people with intellectual disabilities, they are easily pressured, manipulated, or persuaded to make false statements, including incriminating ones. Youth (especially young children) also lack the cognitive capacity and judgment to fully understand the nature or gravity of an interrogation or the long-term consequences of their responses to police questions. Like the people with intellectual disabilities, juveniles also have limited language skills, memory, attention span, and information-processing abilities compared to normal adults. And juveniles too are less capable of withstanding interpersonal stress and thus more likely to perceive aversive interrogation as intolerable. All of these traits explain why they are more vulnerable to coercive interrogation and more susceptible to making false confessions.

Mental illness. Finally, people with serious mental illnesses (e.g., psychoses) are also disproportionately likely to falsely confess (Redlich, 2004; Redlich, Kulish, & Steadman, 2011), especially in response to police pressure. People with serious mental illness possess any number of psychiatric symptoms that make them more likely to agree with, suggest, or confabulate false and misleading information to detectives during interrogations. These symptoms include faulty reality monitoring, distorted perceptions and beliefs, an inability to distinguish fact from fantasy, proneness to feelings of guilt, heightened anxiety, mood disturbances, and a lack of self-control (Kassin et al., 2010). In addition, the mentally ill may suffer from deficits in executive functioning, attention, and memory; become easily confused; and lack social skills such as assertiveness (Redlich, 2004). These traits also increase the risk of falsely confessing. Although people with mental illness are likely to make voluntary false confessions, they may also be easily coerced into making compliant ones. As Salas (2004) points out, "Mental illness makes people suggestible and susceptible to the

slightest form of pressure; coercion can take place much more easily, and in situations that a 'normal' person might not find coercive" (p. 264). As a result, people with mental illness "are especially vulnerable either to giving false confessions or to misunderstanding the context of their confessions, thus making statements against their own best interests that an average criminal suspect would not make" (p. 274).

It is important to emphasize, however, that police induce most false confessions from mentally normal adults (Drizin & Leo, 2004; Gross et al., 2005).

The Contamination Error. A confession is more than an "I did it" statement. It also consists of a subsequent narrative that contextualizes and attempts to explain the "I did it" statement. Though it has not received the scholarly attention it deserves, the post-admission narrative—and the interrogation process through which it is constructed—is central to properly understanding and evaluating confession evidence (Leo & Ofshe, 1998). Psychologically-coercive police methods (and how they interact with an individual's personality) may explain how and why a suspect is moved, often painstakingly, from denial to admission. But it is the post-admission narrative that transforms the fledgling admission into a fully formed confession. The post-admission narrative is the story that gets wrapped around the admission and thus makes it appear, at least on its face, to be a compelling account of the suspect's guilt. The content of and rhetorical force of a suspect's post-admission narrative explains, in part, why confessions are treated as such powerful evidence of guilt and sometimes lead to the arrest, prosecution, and conviction of the innocent (Appleby, Hasel, & Kassin, 2013; Leo, 2008).

Police detectives understand the importance of the post-admission phase of interrogation. They use it to influence, shape, and sometimes even script the suspect's narrative. The detective's goal is to elicit a persuasive account that successfully incriminates suspects and leads to their conviction. A persuasive post-admission narrative requires a convincing story line; it must tell, or provide the elements of, a story that will cohere and make sense to the audience evaluating it. Either implicitly or explicitly, a persuasive post-admission narrative must have a believable plotline; especially important is an explanation of the suspect's motive or motives for committing the crime. Interrogators are adept at inventing, suggesting, and/or eliciting an account of the suspect's motivation; indeed, the "theme development" technique is simply a method of attributing a motive to the suspect—typically one that minimizes his culpability—that the suspect agrees to and then repeats back, even if it is completely inaccurate. To incriminate the suspect, it is more

important that the story be believable than that it be reliable (Leo, 2008). To bolster the believability and persuasiveness of confessions, detectives will seek to make the confession seem credible and authentic. They will encourage the suspect to attribute the decision to confess to an act of conscience, to express remorse about committing the crime, and to provide vivid scene details that appear to corroborate the suspect's guilty knowledge and thus confirm his culpability. Interrogators will also try to make the admission appear to be voluntarily given, portraying the suspect as the agent of his own confession and themselves merely as its passive recipient.

The detective helps create the false confession by pressuring the suspect to accept a particular account and suggesting crime facts to him. The detective in effect contaminates the suspect's post-admission narrative. Unless he has learned the crime scene facts from percipient witnesses, community gossip or the media, an innocent person will not know either the mundane or the dramatic details of the crime (Leo & Ofshe, 1998). Thus the innocent suspect's post-admission narrative will be replete with errors when responding to questions for which the answers cannot easily be guessed by chance. Unless, of course, the answers are implied, suggested, or explicitly provided to the suspect—which, in fact, does occur, whether advertently or inadvertently, in many false confession cases (Garrett, 2010; Leo & Ofshe, 1998; Leo et al., 2013).

The contamination of the suspect's post-admission narrative is thus the third mistake in the trilogy of police errors that, cumulatively, lead to the elicitation and construction of a persuasive false confession. Elsewhere I have argued that

Confession contamination occurs because (1) the guilt-presumptive psychology of American police interrogation is designed to trigger and perpetuate confirmation biases, which (2) lead investigators, seemingly inadvertently, to provide detailed case information to suspects as part of their pre- and post-admission accusatory interrogation strategies, but (3) there is no internal corrective mechanism to catch or reverse investigators' misclassification errors or their confirmatory, information-conveying interrogation techniques. Put differently, contamination is common in false confessions because the psychological design of American interrogation methods virtually dictate the contamination once detectives have selected an innocent target for questioning. (Leo, 2013, p. 211).

Police interrogation contamination during interrogation is both counter-intuitive and difficult to detect, thus creating a high risk of wrongful conviction (Leo et al., 2013). Contamination leads to what Gisli Gudjonsson (1992) has called misleading specialized knowledge, which refers to the misleading details incorporated into a suspect's confession narrative when police investigators feed the suspect unique non-public crime facts—facts that are not likely guessed by chance—and then insist that these facts originated with the suspect (Leo, 2008). Awareness of the facts is sometimes referred to as “guilty” or “inside” knowledge. When included in the suspect's post-admission narrative, the facts are believed to reveal that he possesses information that only the true perpetrator would know, and, therefore, he must be guilty. Unlike truly guilty knowledge, however, misleading specialized knowledge is pernicious because it is used so effectively to convict an innocent person. When police interrogators feed nonpublic crime facts to a false confessor and then insist, often under oath in court testimony, that these facts originated with him, they are, in effect, fabricating evidence against him (Garrett, 2010, in press).

Misleading specialized knowledge is powerful evidence because it appears to corroborate the defendant's confession. In many documented wrongful convictions, some or all of the following pattern emerges: When the reliability of the defendant's confession is called into question, police rely on misleading specialized knowledge to persuade prosecutors that the confession must be true, prosecutors rely on misleading specialized knowledge to persuade judges and juries that the confession must be true, defense attorneys rely on misleading specialized knowledge to persuade their clients to accept plea bargains, judges and juries rely on misleading specialized knowledge to convict false confessors, and appellate courts rely on misleading specialized knowledge to uphold their convictions (Leo & Davis, 2010).

Whether intentional or not, police use of misleading specialized knowledge poses a serious problem for the American criminal justice system because its presence in an unrecorded false confession virtually guarantees that the innocent defendant will be wrongfully convicted. Whether it is due to inadvertent influence, strong institutional pressure to solve cases (especially high-profile ones), or some other combination of factors, misleading specialized knowledge is present in many of the documented wrongful convictions based on police-induced false confessions. For example, in a study of the 63 DNA exonerations which involved false confessions, misleading specialized knowledge was used to convict innocent defendants in 59 (or 94%) of the cases

(Garrett, in press). Because misleading specialized knowledge is incorporated into the defendant's confession and taken by police and prosecutors as corroboration of the defendant's guilt, it is difficult to overcome.

The Consequences of False Confessions

Confessions are the most incriminating and persuasive evidence of guilt that the state can bring against a defendant. False confessions are therefore the most incriminating and persuasive false evidence of guilt that the state can bring against an innocent defendant. Former U.S. Supreme Court Justice William Brennan's observation that "no other class of evidence is so profoundly prejudicial" (Colorado v. Connelly, 1986, p. 182) that was noted earlier in this essay is amply supported by social science research (Drizin & Leo, 2004; Kassin & Neumann, 1997; Kassin & Sukel, 1997; Leo & Ofshe, 1998; Miller & Boster, 1977). Confessions strongly bias the perceptions and decision-making of criminal justice officials and jurors alike because most people assume that a confession—especially a detailed one—is, by its very nature, true. Confession evidence therefore tends to define the case against a defendant, usually overriding any contradictory information or evidence of innocence (Kassin, 2012; Leo & Ofshe, 1998). If introduced against a defendant at trial, false confessions are highly likely to lead to wrongful convictions—even when they are elicited by questionable interrogation methods and are not supported by other case evidence.

A confession sets in motion a seemingly irrefutable presumption of guilt among justice officials, the media, the public, and jurors (Kassin, 2012; Leo & Ofshe, 1998). This chain of events, in effect, leads each part of the system to be stacked against the confessor; he will be treated more harshly at every stage of the investigative and trial process (Leo, 1996a). He is significantly more likely to be incarcerated prior to trial, charged, pressured to plead guilty, and convicted. Moreover, the presence of a confession creates its own set of confirmatory and cross-contaminating biases (Findley & Scott, 2006), leading both officials and jurors to interpret all other case information in the worst possible light for the defendant. For example, a weak and ambiguous eyewitness identification that might have been quickly dismissed in the absence of a confession will instead be treated as corroboration of the confession's validity (Castelle & Loftus, 2001; Hasel & Kassin, 2009). As the case against a false confessor moves from one stage to the next in the criminal justice system, it gathers more force and the error becomes increasingly difficult to reverse.

The Role of Police. Once police obtain a confession, they typically close their investigation, deem the case solved, and make no effort to pursue any exculpatory evidence or other possible leads—even if the confession is internally inconsistent, contradicted by external evidence, or the result of coercive interrogation (Leo & Ofshe, 1998). For once they elicit a confession, it serves to confirm their presumption of guilt. Even if other case evidence emerges suggesting or even demonstrating that the confession is false, police almost always continue to believe in the suspect's guilt and the accuracy of the confession (Drizin & Leo, 2004; Leo & Ofshe, 1998).

Another reason police typically close their investigation after obtaining a confession is their poor training about the risks of psychological interrogation and police-induced false confessions (Davis & O'Donohue, 2004; Leo & Ofshe, 1998). From their inception in the early 1940s, interrogation training manuals and programs have virtually neglected the subject of police-induced false confessions, despite considerable published research documenting their existence and effects. The widely cited Inbau and Reid manual, for example, did not discuss the problem of false confessions until its fourth edition in 2001. And despite adding a chapter on the subject then, it (2001)—like every other American interrogation manual and training program—continues to insist that the methods it advocates are not "apt to lead an innocent person to confess," an erroneous assertion that is contradicted an sizeable body of empirical research (p. 212; for critiques, see Davis & O'Donohue, 2004; Drizin & Leo, 2004; Gudjonsson, 2003; Kassin et al., 2010; Leo & Ofshe, 1998; Ofshe & Leo, 1997a, 1997b). And although Inbau and colleagues (2013) have since come out with a 5th edition of their interrogation manual, as Alan Hirsch (2014) has noted, "in crucial respects it has ignored or distorted what has been learned about false confessions, thereby assuring that this disturbing phenomenon will remain pervasive" (p. 805; see also Moore & Fitzsimmons, 2011). As a result, American police remain poorly trained about the psychology of false confessions, why their methods can cause the innocent to confess, the types of cases in which false confessions are most likely to occur, and how to recognize and prevent them.

The Role of Legal Actors. The presumption of guilt and the tendency to treat more harshly those who confess extend to prosecutors. Like police, prosecutors rarely consider the possibility that an innocent suspect has falsely confessed. Some are so skeptical of the idea of police-induced false confessions that they stubbornly refuse to admit that one occurred even after DNA evidence has unequivocally established the defendant's innocence

(Kassin & Gudjonsson, 2004). Once a suspect has confessed, prosecutors tend to charge him or her with the highest number and types of offenses (Ofshe & Leo, 1997a); set his or her bail higher, especially in serious or high-profile cases (Leo & Ofshe, 1998); and are far less likely to initiate or accept a plea bargain to a reduced charge (Leo & Ofshe, 1998). The confession becomes the centerpiece of the prosecution's case.

Even defense attorneys tend to presume confessors are guilty and treat them more harshly. They often pressure confessors to accept a guilty plea to a lesser charge in order to avoid the higher sentence that will inevitably follow from a jury conviction (Nardulli, Eisenstein, & Fleming, 1988). As the California Supreme Court noted, "the confession operates as a kind of evidentiary bombshell which shatters the defense" (People v. Cahill, 1993, p. 497). American judges also tend to presume that confessors are guilty and treat them more punitively (Leo & Ofshe, 1998; Wallace & Kassin, 2012). Conditioned to disbelieve defendants' claims of innocence or police misconduct, judges rarely suppress confessions, even highly questionable ones (Givelber, 2001).

If the defendant's case goes to trial, the jury will treat the confession as more probative of his guilt than any other type of evidence (short of a videotape of him committing the crime), especially if, as in virtually all high-profile cases, the confession receives pretrial publicity (Kassin & Sukel, 1997; Leo & Ofshe, 1998; Miller & Boster, 1977). False confessions are thus highly likely to lead to wrongful convictions. In their study of 60 false confessions, Leo and Ofshe (1998, 2001) found that 73% of the false confessors whose cases went to trial were erroneously convicted, 81% were in Drizin and Leo's (2004) study of 125 false confessions, and 88% were in Gould et al.'s (2014) study of wrongful 460 convictions and "near misses" (110 of which involved false confessions).

These figures are remarkable. If representative, they indicate that a false confessor whose case goes to trial stands a 73% to 88% chance of being convicted, even though there is no reliable evidence corroborating his confession. Taken together, these studies demonstrate that a false confession is a dangerous piece of evidence to put before a judge or jury because it profoundly biases their evaluations of the case in favor of conviction—so much that they will allow it to outweigh even strong evidence of a suspect's innocence (Kassin, 2012; Leo & Ofshe, 1998). Jurors simply do not appropriately discount false confession evidence, even when the defendant's confession was elicited by coercive methods and the other case evidence strongly supports his or her innocence. False confession evidence is thus highly, if not inherently, prejudicial to the fate of any innocent

defendant in the American criminal justice system. As Welsh White (2001) has noted, "the system does not have safeguards that will prevent the jury from giving disproportionate weight to such confessions" (p. 155).

The high rates of conviction of false confessors are even greater when we consider the number of false confessors who plead guilty rather than take their cases to trial: 12% did in Leo and Ofshe's (1998, 2001) sample of 60 cases, and 11% did in Drizin and Leo's (2004) sample of 125 cases. Counting the false confessors in both samples whose cases were not dismissed prior to trial, more than 78% in the first study and more than 85% in the second were wrongfully convicted, either by plea bargain or trial.

The findings from these studies of aggregated false confessions cases are consistent with those from experiments and public opinion surveys. They all point to the same conclusion that a confession is "uniquely potent" (Kassin & Neumann, 1997, p. 469) in its ability to bias the trier of fact in favor of the prosecution and lead to a wrongful conviction (see also Leo & Ofshe, 1998). Experimenters have demonstrated that mock jurors also find confession evidence more incriminating than any other type of evidence (Kassin & Neumann, 1997; Miller & Boster, 1977). Kassin and Sukel (1997) found that confessions greatly increased the conviction rate even when mock jurors viewed them as coerced, were instructed to disregard them as inadmissible, and reported afterward that they had no influence on their verdicts. Wallace and Kassin (2012) demonstrated that judges similar biases. Most Americans simply accept confession evidence at face value. When false confessors subsequently retract their confessions, they are often not believed, or their retractions are perceived as further evidence of their deceptiveness and thus guilt (Ofshe & Leo, 1997a).

If a false confessor is convicted, he will almost certainly be sentenced more harshly, and the likelihood of discovering his innocence will drop precipitously (Leo, 2008). At sentencing, trial judges are conditioned to punish defendants for claiming innocence (since it costs the state the expense of a jury trial) and for failing to express remorse or apologize. And once a defendant is convicted and imprisoned, it is exceedingly rare that criminal justice officials will take seriously his claim that he confessed falsely and was wrongfully convicted. As Gudjonsson (2003) points out, the criminal justice system is poor at discovering, admitting, or remedying its errors, especially after an innocent suspect has been convicted. Indeed, the system officially presumes his guilt after he is convicted, treats the jury's verdict with deference, and interprets any new evidence in the light most favorable to the prosecution.

Until recently, with the advent of DNA testing, virtually no one in the criminal justice system took seriously any innocent prisoner's claim that he was wrongly convicted, especially if the conviction was based on a confession to police (Ayling, 1984). And most people still tend to presume the validity of convictions. One reason is that the system does not provide any regular mechanisms for reviewing the substantive basis of convictions. It is simply the prisoner's officially discredited word against that of an entire system. Absent a remarkable stroke of luck or social intervention, the wrongfully convicted false confessor will never be able to officially prove his innocence. Thus, police-induced false confessions are among the most consequential of all official errors (Kassin, 2012; Leo & Ofshe, 1998).

Policy Reforms

In my scholarship, I have been interested not only in empirically analyzing the psychology and sociology of American interrogation practices and the causes and consequences of police-induced false confessions, but also in advocating for policy reforms that are designed to 1) improve the quality of American police interrogation practices; 2) minimize the number of false confessions investigators elicit; and 3) prevent false and unreliable confession evidence from being introduced at trial, thereby minimizing the risk that it will lead to the wrongful conviction of the innocent. This has been one of the ways I have sought in my own work to help close the justice gap. I have done this primarily by advocating for two policy reforms: the electronic recording of police interrogations and the use of pre-trial reliability hearings for confession evidence. I was one of the first social scientists in the United States to argue for full electronic recording of police interrogation (Leo, 1996b, 2008; Leo & Richman, 2007), and I was the first social scientist to argue for subjecting disputed confession evidence to the scrutiny of a pre-trial reliability hearing before it can be admitted into evidence at trial (Leo, 1998; Leo et al., 2006; Leo et al., 2013).

Electronic Recording of Police Interrogation

When I first began researching and writing about police interrogation and confessions in the early 1990s, only one state (Alaska) required electronic recording by law. Now in late 2014, more than 20 years later, 19 states and the District of Columbia require electronic recording of police interrogations by law⁴ for some or all crimes, and two additional states (Hawaii and Rhode Island) require it by policy (Sullivan, 2014). In addition, hundreds of police departments across the Country now voluntarily record interrogations, even though it is not required by

law in their jurisdiction (Sullivan, 2010). A sea change has taken place that was almost unthinkable two decades ago when I first began researching about police interrogation and confessions.

These reforms in law and practice did not occur by accident. In the last 20 years, there has been a movement to mandate and implement full electronic recording of police interrogation, which was made possible by advances in video technology in the 1980s. This issue was increasingly litigated in the appellate courts in the 1990s, and mandatory recording bills were repeatedly brought up and passed in many state legislatures in the 2000s. Perhaps the most important impetus for the movement to record interrogations among scholars, activists, criminal justice professionals, and policy-makers has been the media coverage of false confessions and wrongful convictions since the rise of innocence projects and DNA exonerations in the mid-1990s. The renewed focus on actual innocence has led to greater scrutiny of police interrogation practices and confessions. It has also prompted increasing calls for mandatory electronic recording of interrogations so that criminal justice officials and triers of fact will be better able to evaluate the reliability of police-induced confessions.

I have been part of this movement for electronic recording of interrogation since the early 1990s, not only by documenting and analyzing false confessions and their consequences in my scholarship, but also through public and professional engagement on these issues with public and policy audiences. I have given numerous talks about police interrogation, false confessions, and the need for electronic recording of interrogations to professional groups such as judges, criminal defense attorneys, police, forensic psychologists and psychiatrists, investigators, and paralegals. Over the years, I have repeatedly given testimony to state legislative and judicial subcommittees. I have also worked extensively with the print and electronic media—writing op-eds, appearing on television shows and in print, and working behind the scenes with investigative journalists and reporters on hundreds of stories in which I did not appear or was not quoted. In a sense, my professional life's mission to date has been closing this justice gap by providing the public and policy-makers—in multiple ways—with data-driven knowledge and expertise about how police-induced false confessions occur, why they sometimes lead to the erroneous conviction of the innocent, and what can be done to prevent them.

The full electronic recording of police interrogation is the most important policy reform to this end. At the heart of virtually all police-induced false confessions is a factual dispute about what occurred during the (often lengthy) interrogation—

typically whether police used psychological coercive techniques (such as threats and promises) and whether police contaminated the suspect's post-admission narrative by feeding him unique and/or non-public crime facts that were incorporated into his confession statement. Invariably, courts credit the police version of events denying that any coercion or contamination occurred (Kamisar, 1980), and thus almost always admit disputed (including false) confessions into evidence. As a result, police have largely been able to determine the factual record that judges and juries rely on to determine whether a defendant's confession was reliable. And, as we have seen in hundreds of documented cases, this has led to innocent false confessors like Bradley Page being wrongfully convicted and incarcerated, some for decades.

Electronic recording creates an objective, comprehensive, and reviewable record of an interrogation, making it unnecessary to rely on the incomplete, selective, and potentially biased accounts of the disputants over what occurred. Electronic recording removes secrecy from the interrogation process, making it both transparent and capable of independent review. As Tom Sullivan (2004) pointed out, the indisputable record is "law enforcement's version of instant replay" (p. 6). Electronic recording thus prevents untruthful allegations and faulty recollections from being treated as fact. It also encourages best police practices by deterring police interrogators from using impermissible techniques such as threats, promises, and contamination (Kassin, Kukucka, Lawson, & DeCarlo, 2014). As electronic recording becomes increasingly accepted and institutionalized, it may even change the culture of interrogation such that police learn to rely less on the kinds of methods that lead to false confessions.

Even if police continue to elicit some false confessions – as seems inevitable – electronic recording will help prevent them from being introduced into the stream of evidence that can lead to wrongful convictions. For recording also creates a permanent and objective record for judges and juries to review. It thus provides a means by which third parties such as courts can monitor police practices and enforce other safeguards (White, 1997). If there is a question about the propriety of police techniques or the reliability of the suspect's statements, police managers can review the taped interrogation and transcript to decide whether to present the case to the prosecutor. Even if detectives and police managers fail to recognize a confession as false, the prosecutor is in a better position to assess its reliability when there is an electronic recording of the entire interrogation. A recording allows the prosecution to evaluate the police methods, how the suspect responds to

questions, and whether the suspect independently provides nonpublic details about the offense.

Still, false confessions sometimes slip through police and prosecutorial filters; even the most well-meaning police and prosecutors make erroneous judgments. In many false confession cases, trial judges have ruled that the confession was voluntary, and in all of the cases in which false confessions have led to wrongful convictions, judges and juries—when asked to evaluate the interrogation—have found the confessions to be reliable evidence of guilt (Drizin & Leo, 2004). A recording of the entire interrogation helps prevent these types of errors and contributes to reliable fact-finding by allowing judges and jurors to make more factually informed decisions about whether to admit confessions into evidence and what weight to put on them when determining guilt or innocence.

By preserving a complete record for all to review, electronic recording makes the multiple safeguards in the criminal justice system that are designed to filter out erroneous and unreliable evidence more meaningful, improving the reliability of evidence used in criminal trials. To the extent that electronic recording of interrogations prevents criminal justice officials from wrongfully pursuing the innocent, it will also help them rightfully pursue the guilty.

Pre-Trial Reliability Hearings for Confession Evidence

In 2006, Steve Drizin, Peter Neufeld, and I published the first article that, to my knowledge, argued that trial judges should hold pre-trial reliability hearings on confession evidence (Leo, Drizin, Neufeld, Hall, & Vattner, 2006). Based on more than two decades of empirical social science research in general (Kassin & Gudjonsson, 2004) and what has come to be known as the Ofshe-Leo fit standard in particular (Ofshe & Leo, 1997a, 1997b), we proposed a new test for judges to apply when assessing the reliability of confession evidence. As Richard Ofshe and I argued many years ago, absent pre-existing knowledge or contamination, in many cases, the reliability of a suspect's confession can be evaluated by analyzing the fit (or lack thereof) between the descriptions in his post-admission narrative and the crime facts in order to determine whether the suspect's post-admission narrative reveals the presence (or absence) of guilty knowledge and whether it is corroborated (or disconfirmed) by objective evidence (Ofshe & Leo, 1997a, 1997b; Leo & Ofshe, 1998, 2001). We specifically pointed out that there are at least three indicia of reliability or reliability factors that can be evaluated to reach a conclusion about the trustworthiness of a confession: Does the statement (1) lead to the discovery of evidence unknown to the

police, (2) include identification of highly unusual elements of the crime that have not been made public, or (3) include an accurate description of the mundane details of the crime which are not easily guessed and have not been reported publicly? We noted that there is little dispute that the Ofshe-Leo factors should contribute to an assessment of a confession's reliability, and that these factors are routinely relied on by all parties—including law enforcement—in the criminal justice system to assess reliability.

We also emphasized the importance of electronically recording interrogations in their entirety. We argued that judges evaluating the reliability of confessions that are the product of a recorded interrogation should weigh three factors in deciding whether to admit or exclude the confession: 1) whether the confession contains non-public information that can be independently verified, would only be known by the true perpetrator or an accomplice, and cannot likely be guessed by chance; 2) whether the suspect's confession led the police to new evidence about the crime; and 3) whether the suspect's post-admission narrative fits (or fails to fit) with crime facts and existing objective evidence. We argued that if the state seeks to admit a confession that is not the product of a fully recorded interrogation, prosecutors must first demonstrate by clear and convincing evidence that it was not feasible for reasons that were not the fault of law enforcement and that the confession must strongly link the suspect to the crime by leading law enforcement to evidence that was previously unknown to them. If the prosecutor can meet this burden, the judge must still balance the remaining reliability factors outlined above in deciding whether to admit or exclude the confession.

The substantive legal underpinning for our proposed reliability test is Federal Rule of Evidence 403 (or its equivalent state analogue), which allows trial courts to exclude evidence whose probative value is substantially outweighed by its prejudicial effect because of the risk of misleading the jury and leading to an erroneous verdict⁵. By definition, a false confession—like any piece of completely false evidence—has no probative value. Confessions that contain indicia of unreliability, but cannot be proven false, are likely to have very little probative value. At the same time, as we have seen above, a false confession—especially a contaminated/formatted false confession—is a dangerous piece of evidence to place before a jury because of the high risk that it will lead to wrongful conviction, as we have seen. Confessions that contain indicia of unreliability, but cannot be proven false, create a risk of wrongful conviction. As a logical matter then, a false or unreliable confession—especially if has been contaminated—contains little or no probative value

but instead creates a substantial danger or risk of unfair prejudice to an innocent defendant. The Ofshe-Leo factors mentioned above, we argued, could be used by judges to assess whether a confession contains sufficient indicia of reliability to be admitted into evidence. If the disputed confession evidence did not meet a minimal threshold of reliability, the trial judge could suppress it from evidence at trial, even if the confession was otherwise considered legally voluntary and complied with the Miranda requirements (Leo & Koenig, 2010). In many genuine false confession cases—in which there exists little or no corroborating evidence, as in Bradley Page's case—this would likely lead prosecutors to dismiss charges against innocent defendants. In others, it would prevent a dangerous—perhaps the most dangerous—a type of evidence from being placed before a jury, thereby substantially reducing the risk of wrongful conviction at trial.

Upon a motion by the defense, courts in criminal cases should evaluate the reliability of confession evidence, which could be undertaken at the same pre-trial hearing in which they assess voluntariness. Confessions that do not possess sufficient indicia of reliability should be excluded from evidence at trial. There are several possible bases for such assessments of the reliability of confession evidence. We argued that trial courts can draw on existing principles and rules of evidence—as the U.S. Supreme Court instructed in the 1986 case *Colorado v. Connelly* (1986)—for such hearings. Alternatively, federal and state rules of evidence could be amended to create a specific rule for addressing the reliability of confession evidence in pre-trial hearings. Another possibility would be for legislators to draft a statute for assessing the reliability of confession evidence at pre-trial suppression hearings, ideally also providing guidance to judges—either in the legislative history or the text of the statute itself—on the criteria or factors they should look to when making these screening determinations.

My co-authors and I have argued that Federal Rule of Evidence 403 and its state analogues provide trial courts with the authority to exclude confession evidence whose probative value is substantially outweighed by the danger of unfair prejudice to the defendant, confusion of the issues, or misleading the jury (Leo et al., 2006; Leo et al., 2013). Under Rule 403, at any point during a criminal case, the trial judge enjoys the broad discretion to assess the probative nature of any proposed evidence (including confession evidence), weigh its prejudicial effect, and exclude it from evidence. We and others believe Rule 403 to be an adequate and proper judicial mechanism for considering unreliable confession evidence (Du Clos, 2014; Leo et al., 2006, 2013; Thompson, 2012a). Rule 403 grants trial courts broad discretion to exclude

unreliable evidence that would mislead juries into rendering inaccurate verdicts. Operating more like a general principle than a specific rule, the underlying purpose of Rule 403 is to protect the accuracy and fairness of the fact-finding process at trial by shielding jurors from relevant evidence that they will overvalue or from which they will draw erroneous or improper inferences (Imwinkelreid, 1988). Trial courts have routinely relied on Federal Rule of Evidence 403 (or its state equivalent) in multiple other contexts—such as child witness testimony, hearsay evidence, and hypnotically refreshed testimony—to exclude unreliable evidence in pre-trial hearings and thereby prevent it from reaching the jury at trial (Thompson, 2012b). Indeed, the U.S. Supreme Court in *Daubert v. Merrill Pharmaceuticals* invoked Rule 403 in directing trial courts as part of their gatekeeping role to assess the reliability of scientific expert testimony based on Federal Rule of Evidence 702.

We believe that in using a Rule 403 balancing test to assess whether the probative value of the proposed confession evidence outweighs the risk of prejudice (and other dangers), trial courts should consider relevant factors that enhance or undermine a confession's reliability. These factors, or indicia of reliability/unreliability, include but are not limited to

1. Whether the statement led to the discovery of new evidence previously unknown to the police (e.g., the murder weapon, property stolen from a victim, etc.);
2. Whether the statement includes an accurate description of the held-back and/or mundane details of the crime that are not easily guessed, have not been reported publicly, and can be independently corroborated;
3. Whether the suspect's post-admission narrative "fits" with the crime facts and existing objective evidence; and
4. In the case of multiple defendants, whether the co-defendants' statements are consistent with one another.

Also, trial courts should consider the extent to which the statement contains non-public details that originated with the suspect that were not likely to have been guessed; errors, inconsistencies, or contradictions with case evidence; or admission of facts that the police believed to be true at the time of the interrogation but later learned were false. At the same time, trial judges could consider evidence of police contamination to determine whether the confession evidence is so tainted that it simply has no

probative value at all. Had a complete factual record of the interrogation been available, this would have been the correct ruling in 59 of the 63 DNA exoneration false confessions studied by Brandon Garrett (in press). Under the law as envisioned, at the pre-trial suppression hearing, in addition to raising questions about the voluntariness of confessions and any Miranda-related issues, defense counsel could also raise concerns about the reliability of the proposed confession evidence. It is important to note that this change in law can only work in jurisdictions where police are required to electronically record the entire interrogation preceding the confession because without an electronic recording, judges, prosecutors, and defenders cannot assess whether the details in the confession originated with the suspect or were suggested to the suspect by police.

Other Possible Policy Reforms

The mandatory full electronic recording of police interrogations and pre-trial reliability hearings for confession evidence have been the two policy reforms that I have invested the most time analyzing and advocating in my research and scholarship, professional talks and presentations, and other outside professional activities. There is no single policy reform that will solve all the problems associated with police interrogation and confession evidence in America. Elsewhere, I have evaluated and/or argued for other reforms to prevent and minimize police-induced false confessions (Leo, 2008). The earlier these reforms occur in the criminal process, the more effective they are likely to be.

One relatively straightforward policy reform would be to improve police training with respect to interrogation and confessions, so that investigators are more aware of the reality of police-induced false confessions, how and why they occur, the social scientific research on risk factors for false confessions, indicia of reliable and unreliable confessions, and best practices to avoid eliciting false confessions. More specifically, police interrogation training needs to be significantly improved in at least three ways. First, interrogators need to be taught that they cannot reliably intuit whether a suspect is innocent or guilty based on their perceptions of his demeanor, body language, and nonverbal behavior. Second, detectives need to receive better training about the variety and causes of police-induced false confessions. Interrogators need to be taught that their techniques can cause normal people to falsely confess, and, more importantly, why. Third, interrogators must receive better training about the indicia of reliable and unreliable statements, as well as how to properly distinguish between them. A suspect's "I did it" statement is never self-corroborating; it should be

treated as neutral initially and then tested against the case facts. Ironically, an Oakland Police Department interrogation training manual has stated that an uncorroborated confession is “not worth the paper it is written on” (Oakland Police Department, 1998, p. 72), yet that did not prevent Sergeant Harris and Lacer failing to see that Bradley Page’s confession lacked any meaningful corroboration and bore numerous indicia of being false and unreliable. Detectives need to be taught that the proper way to assess the reliability of a suspect’s confession is by analyzing the fit between his post-admission narrative and the crime facts to determine whether it reveals guilty knowledge (absent contamination) and is corroborated by existing evidence (Ofshe & Leo, 1997b).

Another policy reform that deserves consideration is requiring probable cause prior to subjecting a suspect to guilt-presumptive accusatory police interrogation (Covey, 2005; Leo, 2008). As we have seen, police sometimes misclassify an innocent person as guilty based on flimsy evidence: in Bradley Page’s case, it was for the mere reason that he was the victim’s boyfriend, as Sergeant Lacer later bragged about on national television. Once American police classify a person as guilty, their goal is no longer to investigate his or her possible involvement in the crime but to get him or her to make incriminating statements. By subjecting the basis for the decision to interrogate to an independent review by a third party, a probable cause requirement could prevent fishing expeditions and ill-conceived interrogations, thus screening out the kinds of cases that tend to lead to false confessions.

Another way to prevent false confessions is to more effectively regulate the interrogation techniques that produce them. In the modern era, promises of leniency and threats of punishment, whether implicit or explicit, are the primary cause of police-induced false confessions (Ofshe & Leo, 1997b). Trial courts vary across states, however, regarding what constitutes an impermissible promise that will overbear the will of a suspect (White, 2003). Appellate courts should create an unambiguous, bright line rule prohibiting, under all circumstances, any implicit or explicit promises, offers, or suggestions of leniency in exchange for an admission. This might include any inducement that reasonably communicates a promise, suggestion, or offer of reduced charging, sentencing, or punishment; freedom; immunity; or police, prosecutorial, judicial, or juror leniency in exchange for an admission or confession. Appellate courts could also create an unambiguous rule prohibiting, under all circumstances, any implicit or explicit threat or suggestion of harm in the absence of an admission. This would include any inducement that reasonably communicates higher charging, a longer

prison sentence, or other harsher punishment in the absence of an admission or confession.

Appellate courts and legislatures may also wish to revisit the issue of whether (or to what extent) deceptive interrogation techniques should be legally impermissible. Experimental and field research has established that false evidence ploys increase the risk of eliciting false and unreliable confessions (see Kassir et al., 2010). Police lying about evidence almost always occurs in interrogations that lead to false confessions. As an empirical matter, police lying about evidence is almost always necessary for eliciting false confessions: Except in rare circumstances, false confessions do not occur without police deception. One reason is that false evidence ploys, if believed, promote the perception of suspects that the evidence will establish their guilt in the eyes of third parties and thus that they are powerless to change their fate unless they confess. Another reason is that false evidence ploys cause suspects to doubt their memory or their ability to resist repeated accusations of guilt as if they are established facts. Yet, such ploys usually will not result in false confessions unless they are accompanied by other coercive interrogation techniques, such as (implicit or explicit) promises or threats.

Courts and legislatures may also wish to specify time limits for interrogations. Lengthy incommunicado interrogation is not only inherently unfair, but, as recent research has documented, far more common in false confession cases than other ones. Routine interrogations last less than two hours on average (Leo, 1996a; Feld, 2013), but interrogations leading to false confessions often last longer than six hours (Drizin & Leo, 2004). Longer interrogations appear to increase the risk of false confessions by fatiguing suspects and thus impairing their ability and motivation to resist police pressures. Specifying a time limit on interrogations of no more than four hours should diminish the risk of eliciting false confessions while maintaining the ability of police to elicit true confessions from the guilty (Costanzo & Leo, 2007). For, as the leading police interrogation manual in America declares, “rarely will a competent interrogator require more than approximately four hours to obtain a confession from an offender, even in cases of a very serious nature.... Most cases require considerably fewer than four hours” (Inbau, Reid, Buckley, & Jayne, 2001, p. 597).

Another ripe area for policy reforms, of course, is to provide additional protections for those groups of individuals who are most vulnerable to the psychological pressures of accusatorial interrogation and thus at the highest risk of being made or led to falsely confess to police. This includes the mentally handicapped and cognitively impaired (especially people with intellectual disabilities), juveniles

(especially under the age of 15), and people with mental illness. Additional protections could range from specialized police training about individual vulnerabilities to greater scrutiny of the reliability of confession statements from these individuals to having guardians or appropriate adults present during their interrogation (Drizin & Leo, 2004).

Some scholars have argued that the use of social science expert testimony in cases involving a disputed interrogation or confession also provides protection against the wrongful conviction of the innocent (Costanzo & Leo, 2007; Cutler, Findley & Loney, 2014; Fulero, 2004). There is now a substantial and widely accepted body of scientific research on this topic, and the vast majority of American case law supports the admissibility of such expert testimony (Costanzo & Leo, 2007). If a disputed confession is introduced at trial, the jury will want to know how an innocent person could have been made to confess falsely, especially to a heinous crime (Leo, 2004). The purpose of social science expert witness testimony at trial is to provide a general overview of the research on interrogation and confession to assist the jury in making a fully informed decision about what weight to place on the defendant's confession. More specifically, social science expert witnesses can aid the jury by 1) discussing the scientific literature documenting police-induced false confessions, 2) explaining how and why particular interrogation methods and strategies can cause the innocent to confess, 3) identifying the conditions that increase the risk of false confession, and 4) explaining the principles of post-admission narrative analysis. By educating the jury about the psychology, causes, and indicia of false confessions, expert witness testimony at trial should reduce the number of confession-based wrongful convictions.

A final potential reform is the use of cautionary instructions to juries. In theory, such instructions should increase jury sensitivity about the confession evidence they are being asked to evaluate and thus lead to more accurate verdicts and fewer wrongful convictions based on unreliable confessions. Jury instructions are traditionally a reform of last resort because they only affect the small percentage of cases that actually go to trial. Because they occur at the end of a case, they are also the least forward-looking or systemic of all proposed policy reforms. Although they are rarely given in confession cases, jury instructions educate a jury about the risks of particular interrogation techniques, the principles of post-admission narrative analysis, or the importance of external corroboration. Jury instructions are thus one way for courts to reform the investigation process and enhance jury sensitivity so as to guarantee the

admissibility of more reliable confession evidence and more accurate verdicts.

The Criminology of Wrongful Convictions

In my scholarship and work outside the academy, I have been interested not only in better understanding and preventing interrogation-induced false confessions, but also in better understanding and preventing erroneous convictions of the innocent. This is one of the biggest justice gaps of our era. As I have argued above, there is no worse error in the American criminal justice system—that the criminal justice system itself causes—than the wrongful conviction of a factually innocent person, and certainly there is no worse error imaginable than the wrongful execution of an innocent individual, which appears to have happened many times over in the last century (Grann, 2009; Liebman, 2014; Lofquist & Harmon, 2008; Prejean, 2005; Radelet & Bedau, 1998). Wrongful convictions cry out for better understanding and prevention. False confessions are merely one cause or source of the wrongful convictions of the innocent. As is now well-known, there are many others, including eyewitness misidentification, perjured informant testimony, erroneous witness testimony, forensic error and fraud, police and prosecutorial misconduct, and ineffective assistance of counsel. Criminologists need more and better empirical research on wrongful convictions, both to develop the systematic study of errors in criminal justice and to aid those who seek to improve the quality of American justice (Leo & Gould, 2009).

The History of Wrongful Conviction Scholarship

The study of wrongful conviction in America began with then Yale Law Professor Edwin Borchard's (1932) book, *Convicting the Innocent*. Arguing against the then prevailing idea that innocent people are never wrongfully convicted, Borchard demonstrated in 65 cases that, for a variety of reasons, innocent people did get wrongfully convicted and that the criminal justice system was therefore fallible. Borchard's pioneering research shifted the question away from whether factually innocent individuals were wrongfully convicted in the American criminal justice system to the question of why there were wrongfully convicted and what could be done to remedy this problem. In the roughly half-century following Borchard's book, several similar books—typically by lawyers or journalists—were published sporadically, often following the same format and repeating many of the same ideas but with newer (and sometimes more) cases. These books included Erle Stanley Gardner's *The Court of Last Resort* (1952), Jerome Frank and Barbara Frank's *Not Guilty* (1957),

and Edward Radin's *The Innocents* (1964). Like Borchard's *Convicting the Innocent*, these works also discussed a number of "wrong man" cases, the presumed causes of wrongful conviction, and recommended policy reforms to reduce wrongful convictions in American society. Though they followed a similar structure, these reform minded books were motivated by moral outrage about one of the most fundamentally important, yet one of the most neglected, problems in American criminal justice.

The empirical study of wrongful conviction of the innocent continued to be ignored by criminologists and most other social scientists through the most of 1980s. At the time, virtually all observers assumed that the innocent were rarely, if ever, convicted and that wrongful convictions were thus anomalous, if not freakish (Garrett, 2008; Zalman, 2010-2011). This view began to change with Hugo Bedau and Michael Radelet's 1987 landmark study, "Miscarriages of Justice in Potentially Capital Cases," published in the *Stanford Law Review*. Bedau and Radelet identified 350 cases of wrongful conviction in potentially capital cases in America from 1900-1985 and systematically analyzed the causes of these errors, the sources of discovery of these errors, and the number of innocents (23) in this sample who were executed. Bedau and Radelet's pioneering article marks the beginning of the modern era of the study of wrongful conviction (especially in capital cases) in America and has been significant and influential (Leo, 2005; Lofquist, 2014). But Bedau and Radelet's landmark study (which was followed with a book five years later [Radelet, Bedau & Putnam, 1992] cataloguing 416 innocents convicted in potentially capital cases and 24 who had been erroneously executed since 1900) would be soon eclipsed, yet also affirmed, by the most significant development in the history of wrongful convictions: DNA and its application to the criminal justice system, particularly in post-conviction cases in which biological evidence existed to conclusively test convicted prisoners' claim that they were factually innocent and had been wrongfully convicted.

Since 1989, the year of the first DNA exonerations, DNA testing has established the fact of wrongful conviction in scores of cases, including numerous capital cases (see <http://www.innocenceproject.org>). The earliest published statement on DNA exonerations was a study of 28 wrongful convictions in which the testing of DNA evidence established factual innocence. The study was published by the Department of Justice in 1996 and entitled *Convicted by Juries, Exonerated by Science: Case Studies in the Use of DNA Evidence to Establish Innocence after Trial* (Connors, Lundregan, Miller, & McEwen, 1996). Since that time, DNA testing has become increasingly sophisticated, and

more than 320 wrongly convicted individuals have been declared innocent and released from prison. Barry Scheck and Peter Neufeld, cofounders of the Innocence Project, and many others have continued to work on cases in which DNA testing has established factual innocence and led to the release of wrongfully convicted prisoners. The impressive work of Scheck and Neufeld, and their New York-based Innocence Project, also spawned the creation of numerous regional innocence projects or legal clinic at law schools around the country that also work to exonerate the innocent, but wrongly convicted, prisoners and to advocate for policy reforms to prevent and minimize erroneous convictions of the innocent. In 2000, when Scheck and Neufeld (along with journalist Jim Dwyer) published *Actual Innocence: Five Days to Execution and Other Dispatches from the Wrongly Convicted*, 62 factually innocent individuals in America had been exonerated through DNA testing. Fourteen years later, there are now 321 wrongly convicted prisoners who have been exonerated and released as a result of DNA testing (see <http://www.innocenceproject.org>), and there is every indication that this figure will continue to grow. An increasing number of wrongly convicted prisoners also have established their innocence through non-DNA means of exoneration in the last 25 years. Indeed, in 2011, Sam Gross of the University of Michigan Law School and Rob Warden of the Center on Wrongful Convictions at Northwestern University started the National Registry of Exonerations, which so far has logged close to 1,500 exonerations since 1989, the vast majority of which do not involve DNA (<https://www.law.umich.edu/special/exoneration/Pages/about.aspx>).

The exoneration of hundreds of wrongfully convicted but factually innocent prisoners has challenged some of our most fundamental assumptions about American criminal justice and procedure. Although the precise rate of wrongful convictions remains unknown and unknowable, there has been a growing awareness in the last two decades – in the media and among the public, criminal justice professionals, and even many courts – that wrongful convictions of the innocent occur with troubling regularity and frequency in the American criminal justice system. Speaking only of wrongful conviction in capital cases, U.S. Supreme Court Justice David Souter wrote in *Kansas v. Marsh* (2006) that they occur "in numbers never imagined before the development of DNA tests" (p. 203, Souter, J., concurring). Indeed, the results of post-conviction DNA testing in the 1990s and 2000s not only opened a window into the nature and frequency of error in the American legal system, but it also put the problem of the wrongful conviction of the innocent on the national

agenda, leading to a drop in public confidence about the criminal justice system and even a decline in support for the death penalty (Baumgartner, De Boef, & Bodstun, 2008). A 2001 Harris Poll found that 94% of Americans believed that innocent defendants are sometimes executed (Radelet, 2002).

Advancing the Criminology of Wrongful Convictions

In the last two decades there has been a corresponding explosion of research and writing on wrongful convictions, particularly by legal scholars, lawyers, and journalists. Yet, with a handful of notable exceptions such as Michael Radelet (Bedau & Radelet, 1987), William Lofquist (2001), Talia Harmon (2001), Brian Forst (2004), and a few others (Acker et al., 2001; Huff, Rattner, & Sagarin, 1996; Poveda, 2001; Westervelt & Humphrey, 2001), relatively little of this research had been conducted by criminologists prior to 2004. In 2005, I wrote an article that sought to develop what a criminology of wrongful conviction, as a field of study, does and should look like. I drew on three distinct types of literatures to illustrate existing variation and shortcomings in the empirical study of wrongful convictions. These were what I called (1) the Big Picture Studies, studies like Borchard's (1932) or, more recently, Brandon Garrett's (2011) book of the same title, that usually overview the problems and solutions by discussing a large subset of wrongful conviction cases, the various legal causes of wrongful convictions, and then propose a series of reforms to minimize them; (2) the Specialized Literature, the largely psychological literatures on the causes of wrongful conviction, such as eyewitness misidentification, false confession, and child suggestibility; and (3) the True-Crime Genre, book-length case studies of wrongful conviction (Leo, 2005).

I argued that each of these three distinct genres of scholarship made important contributions to our understanding of, and knowledge about, wrongful convictions but that they also had many shortcomings. The big-picture studies overview our accumulated knowledge of the causes and consequences of, as well as the solutions for, the wrongful conviction of the innocent. Yet, these books were, for the most part, written by journalists and lawyers, not criminologists and social scientists, and tended to vary so little that they contained what I called "a familiar plot" that no longer offered much new insight into the problem of wrongful convictions and had largely become an intellectual dead-end. Although the specialized literatures were, I argued, largely a success story on their own terms, they had been relatively ignored by criminologists, and there had been little attempt to

connect these specialized psychological literatures to the broader criminological study of wrongful conviction. As I wrote at the time (Leo, 2005), "one must go beyond the study of individual sources of error to understand how social forces, institutional logics, and erroneous human judgments and decisions come together to produce wrongful convictions" (p. 211). Finally, I argued that while the true crime books are important because they humanize the problem of wrongful conviction by documenting the history of many individual case tragedies and are designed to reach a broader audience, they tend to be more descriptive than systematic or analytic, they do not employ social science methods and frames of analysis, and they typically do not build on (and sometimes do not even reference) the academic literature on wrongful convictions (Leo, 2005).

I argued that criminologists needed to systematically develop the study of wrongful conviction into a more sophisticated and generalizable body of social scientific knowledge. I argued that in order to do so, criminologists needed to move beyond the sometimes simplistic and misleading assumptions in some of these literatures and develop a deeper understanding of the psychological, sociological and institutional causes of wrongful conviction. I further argued that criminologists needed to build theory—frameworks or paradigms for better understanding the general patterns, logics and characteristics of wrongful conviction cases—to advance the social scientific study of wrongful convictions: "Criminologists need to ask more big-picture questions and try to provide more big-picture answers about how and why the various actors, separately and in coordination, in the criminal justice system produce accurate and inaccurate decisions and results at various stages of the criminal process" (Leo, 2005, p. 215). I also argued that, methodologically, the field needed to move beyond descriptive case data and exoneration narratives to develop more systematic data about wrongful convictions, while calling for more aggregated case studies, matched comparison studies, and path analysis (Leo, 2005; see also Gould et al., 2014; Leo & Gould, 2009).

My goals have essentially been two-fold. I want social scientists to develop the empirical study of the wrongful conviction of the innocent into a more theoretically informed and methodologically sophisticated field of study within the discipline of criminology. I want our collective body of knowledge about the causes, characteristics, and consequences of wrongful conviction to be more valid and reliable. But I am not interested in building this field of study for purely academic purposes. Like many other social scientists, I am also motivated to develop a more sophisticated and generalizable body of knowledge

about the wrongful conviction of the innocent that will contribute to advancing public policies designed to reducing unnecessary human suffering and injustice. In other words, I want to assist scholars and policy-makers to better understand some of the justice gaps in the American criminal justice system so that we can do a better job of trying to close them.

Conclusion: Closing the Justice Gap

In the last 25 years, social science scholarship on the problem of wrongful conviction in America has contributed to what some observers have called “the innocence revolution” (Godsey & Pulley, 2003-2004; Marshall, 2004; Medwed, 2010) or “the new civil rights movement” (Medwed, 2008; Schehr, 2005). This movement was born out of the early pioneering work of Barry Scheck and Peter Neufeld, who co-founded the Innocence Project at Cardozo Law School in 1992, with the goal of “providing pro bono investigative and legal assistance to the wrongly convicted and working to prevent the conditions that created such wrongful convictions (Findley, 2014, p. 5), and it has taken shape with the emergence of the National Innocence Network, which currently consists of more than 60 innocence projects. The innocence movement—which has been fueled not only by academic scholarship, media reports, and sustained litigation and policy advocacy and activism—has exerted a substantial impact on the American criminal justice system as a whole. Keith Findley (2014) wrote that “the [i]nnocence [m]ovement that began to emerge in the 1990s...has been the most dramatic development in the criminal justice world since the Warren Court’s Due Process Revolution of the 1960s” (p. 3). Although this may be an overstatement, the innocence movement certainly offers lessons about how criminologists and other criminal justice scholars can contribute to closing the justice gap in America.

By documenting and analyzing hundreds of cases of the erroneous conviction and incarceration of the innocent, empirical researchers in the last two decades have, once again, debunked the myth of infallibility that permeated the criminal justice system until the early 1990s. Although the work of Borchard in the 1930s (as well as that of other innocence pioneers in subsequent decades) should have shattered the myth that the criminal justice system always gets it right, it was largely ignored for more than half of a century. Instead, as we have seen, Americans simply assumed that the wrongful conviction of the innocent was so aberrational as to be freakish, especially in serious cases, and thus did not merit any meaningful legal, policy, or reform efforts. As Findley (2010-2011) noted, “until the DNA revolution that emerged at the close of the 1980s, most participants in and observers

of the American criminal justice system rather smugly believed that the system was as foolproof as one could hope, and that wrongful convictions, while theoretically possible, were so unlikely as to be unworthy of concern” (p. 1163). By shattering the myth of infallibility, the research and writing of empirical criminal justice scholars has demonstrated that the wrongful prosecution and conviction of the innocent is a regular, widespread and systemic feature of the American criminal justice system, not just an infrequent or episodic aberration.

By exposing and documenting hundreds of indisputable wrongful convictions, innocence scholarship and the innocence movement have also led to what criminologist Marvin Zalman (2010-2011) has called “innocence consciousness” (p. 1468). Zalman has defined innocence consciousness as “the idea that innocent people are convicted in sufficiently large numbers as a result of systemic justice system problems to require efforts to exonerate them, and to advance structural reforms to reduce such errors in the first place” (p. 1468). This innocence consciousness—“innocentrism” (Medwed, 2008)—has been reflected in the growing awareness of the reality of wrongful conviction by the public, the media, policy-makers, and the legal system itself. Notably, this newfound innocence consciousness has exerted a profound effect in reshaping public opinion and debate about the death penalty. As we have seen, the innocence movement has led to a decline in public support of the death penalty. In January, 2000, then Illinois Governor George Ryan declared a moratorium on the death penalty in Illinois because more convicted prisoners had been released from death row as a result of factual innocence ($n=13$) than had been executed ($n=12$) since Illinois reinstated the death penalty in 1973. Illinois ended the moratorium altogether in 2011 when it abolished the death penalty (Warden, 2012). A number of other states have also recently abolished the death penalty: New Jersey and New York in 2007, New Mexico in 2009, Connecticut in 2012, and Maryland in 2013. In the states that have retained the death penalty, capital trials and executions have dramatically declined in the past two decades. So has public support for capital punishment (Unnever & Cullen, 2005). The most influential factor in these developments appears to be innocence consciousness (Baumgartner et al., 2008; Baumgartner, Westervelt, & Cook, 2014; Findley, 2014).

The innocence movement, aided and abetted by empirical social science scholarship on the sources of wrongful conviction, has not only dramatically affected criminal justice policy debates but has also contributed to the adoption of a number of important policy reforms. These policy reforms are designed to reduce erroneous convictions of the innocent by

improving the reliability of the police investigative process and the quality of evidence on which prosecutions are based. As we have seen, criminological research has contributed to the widespread adoption of mandatory electronic recording requirements—the most widely recommended reform for preventing false confessions and confession-based wrongful convictions (Leo, 2008; Kassin et al., 2010)—in many states and the voluntary adoption of recording by hundreds of police departments in other states. So too has extensive empirical research on eyewitness misidentification—which has almost universally been regarded as the leading cause of wrongful conviction from Borchard's (1932) to Garrett's (2011) books of the same title—been instrumental in leading to many reforms designed to prevent eyewitness errors by improving eyewitness accuracy, such as the use of double-blind line-up and photo array procedures, matching line-up fillers to the victim's description rather than to the suspect's appearance, telling the witness that the suspect may or may not be present in the line-up, documenting initial witness confidence judgments, and electronically recording the witness identification process (Wells, Small, Penrod, Malpass, Fulero, & Brimacombe, 1998; Cutler, 2013; National Research Council, 2014; but see Clark, 2013). Social scientists have also been made numerous policy-based recommendations to minimize the number of wrongful convictions caused by forensic errors, including removing crime laboratories from law enforcement control, accrediting crime laboratories and developing certification for forensic scientists, establishing independent oversight and auditing of crime laboratories, and promotion of better research and training in forensic science (Cole, 2014; Mnookin et al., 2011; National Research Council, 2009). Perjured jailhouse informant testimony, another leading evidentiary source of wrongful conviction (Garrett, 2011), is similar to confession evidence, and thus empirically-based suggested reforms include electronic recording of all jailhouse informant interviews, corroboration requirements, pre-trial reliability hearings and cautionary jury instructions (Natapoff, 2009; Neuschatz, Jones, Wetmore, & McClung, 2011; Neuschatz, Wilkinson, Goodsell, Wetmore, Qunlivan, & Jones, 2012; Wetmore, Neuschatz, & Gronlund, 2014).

Underlying virtually all proposed policy reforms across these four leading evidentiary sources of error leading to wrongful conviction—false confessions, eyewitness misidentification, forensic error, and perjured jailhouse informant testimony—has been a call for greater transparency in the evidence-gathering process and the development and implementation of best practices based on social science research (Simon,

2012). Put differently, empirical research by criminologists and others in the past two decades has been instrumental in developing best practices to prevent wrongful convictions by improving the reliability of the criminal justice system (Gould & Leo, 2010).

More broadly, in the last decade, criminologists and empirically-oriented innocence movement scholars have attempted to create new frameworks, paradigms, and theories for better understanding how and why wrongful convictions occur, how they can more effectively be prevented, and how criminal justice policies can and should be reconciled with the values underlying our system of criminal justice (Findley, 2008; Norris & Bonaventre, 2013; Zalman, 2010-2011, 2014). Developing conceptual knowledge is important not only for creating a more systematic, generalizable and respectable criminology of wrongful conviction (Leo, 2005), but also to better inform policy-makers' understandings of what may be at stake, as well as trade-offs, in criminal justice policy reform debates. To this end, criminologists are uniquely situated to create evidence-based knowledge to assist policy-makers to prevent future wrongful convictions—and help close the justice gap.

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About the Author

Richard A. Leo is the Hamill Family Professor of Law and Social Psychology at the University of San Francisco and formerly a Professor of Psychology and Criminology at the University of California, Irvine. He is the 2014 recipient of the Western Society of Criminology's Paul Tappan Award for outstanding contributions to the field of criminology in four distinct areas.

First, Dr. Leo has substantially contributed to the empirical study of routine police interrogation practices. His 2008 book, *Police Interrogation and American Justice* (Harvard University Press) has now become the definitive criminological work on the subject. The book won four book awards, including the prestigious Herbert Jacob Prize from the Law and Society Association, as well as the Outstanding Book Award from the Academy of Criminal Justice Sciences.

His second area of contribution to the field concerns the empirical study of the impact and effects of *Miranda v Arizona* on police, suspects, and the criminal justice system. Professor Leo's articles and books on the topic have been cited hundreds of times by criminologists, legal scholars, courts, and other social scientists. He is widely regarded as one of the leading experts on *Miranda* in the world.

The third area in which Dr. Leo has made significant contributions to our field concerns his study of false confessions. His research not only shifted the paradigm for understanding the counter-intuitive phenomenon of false confession, but so also created a research agenda for the next generation of criminologists and social psychologists who study the problem.

Finally, Dr. Leo has made outstanding contributions to the discipline through his advancement of our knowledge concerning of wrongful conviction, including his landmark 2005 article in the *Journal of Contemporary Criminal Justice*.

Dr. Leo's numerous articles and books in each of these areas have been widely cited and influential not only in criminology but in a number of related disciplines—as evident on his SSRN webpage, which counts over 21,000 downloads of his posted articles. His research has also been influential outside of academia and in the courts, where various appellate courts and the United States Supreme Court have cited his research on multiple occasions, and he has appeared as an expert witness hundreds of times. In addition his work has received substantial media coverage, including a story on the work he did to help free four innocent prisoners in Virginia (the Norfolk Four) which appeared in *The New Yorker* and in a PBS *Frontline* documentary. As a result of his outstanding record, Dr. Leo has won awards from many organizations, including the American Society of Criminology, the Academy of Criminal Justice Sciences, the American Sociological Association, American Psychology-Law Society, and the Society for the Study of Social Problems. He has also been the recipient of numerous grants and fellowships, most notably a Soros Fellowship and a Guggenheim fellowship.

Endnotes

- ¹ I thank Hank Fradella, Val Jenness, David Johnson, and Kim Richman for helpful suggestions.
- ² In their published opinion, the California Appellate court reviewing Page's conviction stated that there was substantial incriminating evidence against Page in addition to his confession statement (*People v. Page*, 1991, p. 161). Their assertion is false and misleading, and undoubtedly reflects the biasing influence that the fact of Page's confession statement exerted on their professional judgment. The fact of Bradley Page's confession trumped his innocence (see Kassir, 2012).
- ³ As Deborah Davis (2010) pointed out, Harris and Lacer "lied to [Page] throughout the interrogation—about their own motivations, about the evidence against him, and about the choices available to him and the implications of those choices" (p. 220).
- ⁴ These states are: Alaska, Minnesota, Illinois, New Jersey, Wisconsin, New Mexico, Maine, North Carolina, Maryland, Nebraska, Indiana, Missouri, Montana, Oregon, Connecticut, Arkansas, Michigan California, Vermont and the District of Columbia (Sullivan, 2014).
- ⁵ Federal Rule of Evidence 403 (2014) states that: "The court may exclude relevant evidence if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence" (p. 18).



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On the Implementation of Pattern or Practice Police Reform

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ABSTRACT AND ARTICLE INFORMATION

Using data drawn from independent monitor reports and stakeholder interviews, this study examines the implementation of the DOJ's pattern or practice police misconduct reform in five jurisdictions: Pittsburgh, PA; Detroit, MI; Washington, D.C.; Cincinnati, OH; and Prince George's County, MD. Each jurisdiction reached "substantial compliance" with the terms of their agreement within five to seven years, despite considerable variation in the length of time needed to implement key settlement agreement components. Results further indicate that implementation is the product of the interaction of several theoretically interesting variables, including strong police leadership, external oversight, adequate resources, and support for the process among a jurisdiction's community members, civil society groups, and political leaders. Despite this unique and successful implementation process, questions remain about the depth of organizational change it produces and thus the substantive value of the pattern or practice initiative.

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A policy's value...must be measured not only in terms of its appeal but also in light of its implementability.

Pressman & Wildavsky, 1984, xv

This paper examines the implementation of police reform efforts in five jurisdictions identified by the U.S. Department of Justice (DOJ) as having engaged in a "pattern or practice" of unlawful activity: Pittsburgh, PA; Washington, DC; Cincinnati, OH; Detroit, MI; and Prince George's County, MD. An analysis of quarterly progress reports and in-depth interviews with several key stakeholders is used to comparatively evaluate

implementation and to identify those factors most salient to the process.

The study begins with a brief introduction to pattern or practice reform and a discussion of literature related to policy implementation. From there, the data and method used to conduct this research are discussed, and the study's findings are presented. An analysis of the results and a suggested research agenda concludes the paper.

Pattern or Practice Police Reform

Section 14141 of the Violent Crime Control and Law Enforcement Act of 1994 charges the DOJ with

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identifying and eliminating the pattern or practice of unlawful activity among state and local police departments (42 USC Sec. 14141). On the breadth and depth of this authority, Harvard law professor William Stuntz (2006) has called the Section 14141 reform process “the most important legal initiative of the past twenty years in the sphere of police regulation” (p.798).

Since the law’s inception, the DOJ has investigated allegations of systematic misconduct in no fewer than 65 jurisdictions, finding a pattern or practice of unlawful activity, most involving excessive use of force or racial profiling, in some 27 agencies.¹ In the vast majority of these cases, affected jurisdictions have opted to negotiate settlements with the DOJ rather than face formal litigation.² Though the content of each agreement is tailored to the specific pattern or practice of abuse, the DOJ relies on a core set of reform mechanisms to affect department-wide change. Most agreements stipulate changes to pertinent department policies, officer training protocols, and existing internal and external accountability systems.³ Settlement terms typically include an aggressive timeline and rely on the oversight of both DOJ attorneys and an independent monitor to drive reform.

Despite the importance of pattern or practice reform to police accountability, the enforcement of civil rights and liberties, organizational reform, and, most importantly, public safety, there has been relatively little scholarly attention to the subject. Exceptions do exist, particularly among academic lawyers. Several of these lawyers, including Livingston (1999) and Stuntz (2006), have examined the Section 14141 program as a mechanism for promoting accountability under federal law, while others have recommended ways to enhance the effects of the initiative on police behavior (e.g., Harmon, 2009; Simmons, 2008). The existing criminological research tends to describe the program’s effect on police reform broadly while contextualizing the initiative in terms of earlier reform efforts (Ross & Parke, 2009; Walker, 2005; Walker & MacDonald, 2009).

The majority of the field’s empirical knowledge derives from case studies of reform in Pittsburgh and Los Angeles. Stone, Foglesong, and Cole’s (2009) examination of LAPD’s experience under federal oversight provides a description of the reform effort and a substantive evaluation of the twelve-year process (2001–2013). The authors credit the DOJ intervention with improvements in the LAPD’s officer accountability systems, agency transparency, and community relations while emphasizing the importance of then-Chief William Bratton’s leadership in promoting change (Stone et al., 2009).

Leadership was also a salient theme in a pair of monographs describing the City of Pittsburgh’s efforts to implement the terms of a federal consent decree instituted in 1997 to strengthen police accountability and reduce excessive force in the Pittsburgh Bureau of Police (PBP). Davis, Ortiz, Henderson, Miller, and Massie (2002) concluded that successful implementation, finalized in August 2002, was a function of the “determination of the police chief to make the decree part of his own reform agenda,” as well as support for the reform among city officials and the organizational accountability provided by the independent monitor charged with overseeing the process (p.64).

These findings have contributed to a largely positive view of the initiative among DOJ attorneys, civil liberties groups, and police reformers (PERF, 2013). That all but two of the twenty jurisdictions choosing to settle prior to 2008 (it is too early to evaluate those initiated after that date) have been released from DOJ oversight adds to the perception that implementation of pattern or practice reform has been successful (US DOJ, 2011). Given the depth of the mandated reforms and the demanding conditions placed on implementation, this apparent success is noteworthy, particularly in light of the well-established challenges that define such a process, even under the most favorable conditions (Pressman & Wildavsky, 1984). Yet, given the lack of empirical writing on the issue, significant questions remain, including two on which this inquiry is based:

1. To what extent does a detailed descriptive analysis of the implementation process provide insight into the depth of reform and the general value of the DOJ’s pattern or practice initiative?
2. To what extent can environmental, organizational, and policy-related factors explain observed variation between affected jurisdictions?

With the hopes of putting these questions in theoretical context, the next section addresses the literature on policy implementation with an eye toward identifying those factors that tend to promote successful agency-wide reform.

Policy Implementation

Two principles help to define the literature on policy implementation and organizational change. First, implementation is an integral part of the policy process, necessary for linking policy outputs with outcomes (Maguire, 2009; Pressman & Wildavsky,

1984). Second, even under the best of circumstances, policy implementation is an intricate and eminently demanding process (e.g., Santos, 2013). This complexity is reflected in a two-dimensional analytical framework that acknowledges the relevance of both dosage, or the “intensity with which a policy is implemented,” and fidelity, or “the extent to which a reform, as implemented, matches the way it was originally conceived or envisioned” (Maguire, Uchida, & Hassell, 2010, p. 1).

In those instances where a policy fails to achieve expected outcomes, whether owing to low dosage or low fidelity, thorough understanding of the implementation process often lends crucial diagnostic insight. Similarly, recognizing how and why a policy is implemented successfully can provide a useful roadmap for future efforts. This is not to say that scholars have agreed upon a ‘one-sized-fits-all’ set of prescriptions; relevant findings tend to vary by both policy type and context (Long & Franklin, 2004). With that said, there is a general consensus that the presence (or absence) of several factors may encourage (or inhibit) implementation (O’Toole, 2000; Zhao, Thurman, & Lovrich, 1995).

The first set of these factors centers on the policy problem. In simple terms, some issues are thought more tractable than others, and the “easier” a problem is to solve, the more likely it is that the policy solution will be implemented successfully (Matland, 1995). According to Mazmanian and Sabatier (1989), the greater degree of change required, the more likely the effort is to stall. On the other hand, narrower issues involve fewer actors, require fewer decision points, and are thus less susceptible to competing agendas, coordination challenges, organizational politics, and other prosaic problems that often beset such efforts (Pressman & Wildavsky, 1984).

The nature of the policy instrument has also been shown to affect implementation. The use of clear, succinct goals and specific priorities tend to correlate with faithful implementation (Robichau & Lynn, 2009). Policies that structure bureaucratic behavior by tying employee performance incentives to implementation-related outcomes, whether the expectations are framed positively (Alpert, Flynn, & Piquero, 2001) or negatively (Ewalt & Jennings, 2004), also tend to contribute to successful reform.

Consistent support from political, legal, and financial sovereigns, including legislators, executive officials, and judges at all levels of government, has also been shown to enhance implementation (Wood, 1990). The effects of such support are greatest when external stakeholders use influence over the “amount and direction of oversight [and the] provision of financial resources” to promote policy change (Mazmanian & Sabatier, 1989, p. 33). Bardach

(1978) argues that this influence is magnified when such authority is applied directly to “fix” specific problems that arise during implementation.

Characteristics of the organization tasked with implementation are also critical to the process. Of the several relevant organizational factors, adequate resources are arguably the most important (Elmore, 1979–80). Crafting new policy and developing the organizational infrastructure to support the change requires an investment of both labor and capital. A recent study of one mid-sized Florida police department, for example, found that lack of agency resources stymied efforts to adopt community policing (Chappell, 2009).

Even in cases where sufficient resources exist, the commitment of agency staff, including street-level actors, middle managers, and leadership, is “the variable that affects most directly the policy outputs of implementing agencies” (Mazmanian & Sabatier, 1989, p. 34). Whether framed in terms of organizational culture (Gottschalk & Gudmundsen, 2009) or bureaucratic behavior (Novak, Alarid, & Lucas, 2003), it is critical that those tasked with implementation believe in the new policy.

Support among street-level officers is particularly important in the context of the police (Mastrofski, 2004; Wycoff & Skogan, 1993). It is well established that street-level officers wield significant discretionary authority and thus maintain ultimate control over how a new policy is translated into practice (Lipsky, 1980). What is more, reform-minded policies often target the behavior of front-line staff, with clear implications for pattern or practice reform, where settlement agreements have typically aimed to remedy patrol officers’ unlawful use of force or racial profiling.

Street-level police officers do not operate completely free of oversight or external influence, despite their considerable discretionary authority. In fact, these officers receive policy and managerial guidance through the chain of command, where first line supervisors are the most direct, most influential voices of accountability (Kelling & Bratton, 1993). The presence of strong, supportive leadership that places a high priority on the implementation process has also been shown to be critical to overall success (Fernandez & Rainey, 2006; Santos, 2013). Leaders who are vocally committed to the implementation process and skilled in developing and communicating organizational agendas and priorities are particularly valuable (Bingham & Wise, 1996).

Culture is a significant determinant of an agency’s ability to implement policy reform (Halperin & Clapp, 2007; Klein & Sorra, 1996). The inhibiting effects of organizational resistance to change have been clearly documented by policing

scholars. The default cultural orientation of police departments tends to reflect an opposition to outside influence, skepticism of external accountability, and a hesitancy to accept change (Walker, 1977; Skolnick & Fyfe, 1993). In fact, even some of the country's best departments have institutionalized the notion that regulation of the police is most effectively done by the police themselves; external oversight is viewed as being both inefficient and ineffective (e.g., Timoney, 2013). The extent to which the affected departments embody (and if present, their ability to overcome) this type of cultural dysfunction will no doubt influence settlement implementation.

Case Selection, Data, and Method

The entire population of potential cases is the 27 jurisdictions within which the DOJ had identified a pattern or practice of misconduct.⁴ Thirteen of the 27 jurisdictions were eliminated, as their settlement dates occurred after January 1, 2008; their inclusion would not provide the requisite time to evaluate implementation. Monitor reports were unavailable for seven of the remaining 14 jurisdictions, narrowing the possible sample to seven. Time and resource shortages required the exclusion of two cases, the State of New Jersey and Los Angeles, CA.

The same legal issue drove reform in the five included jurisdictions: a pattern or practice of unlawful use of force. As a result, each settlement agreement mandated many of the same organizational changes, established comparable implementation timeframes, and relied on very similar oversight conditions. Data are drawn from three sources: (1) quarterly independent monitor reports; (2) structured interviews with key participants; and (3) settlement agreements, court pleadings, newspaper accounts, and other secondary sources.

Independent monitors hired to manage the implementation process are required to publish quarterly status reports. These reports, which use both quantitative and qualitative data to develop a rich account of the reform process, formed the backbone of this study's descriptive analysis.

These reports are supplemented by in-depth interviews with 28 key stakeholders, including Department of Justice's Special Litigation Section staff, independent monitors, police department leadership, and relevant political and community leaders involved in the pattern or practice reform process. Though several of the interviews were conducted face-to-face, the majority occurred online via Skype. Of the 28 subjects interviewed, 24 were identified through monitor reports, court documents, and media coverage; four subjects were identified by

referral. In total, 37 interviewees were contacted⁵ resulting in a response rate of 75.7 percent.

Following the analytical protocol established by Ritchie and Lewis (2013), all of the interviews were recorded and transcribed. Notes made both during and after interviews describing the surroundings, the subject's body language, voice intonations, and other non-verbal cues provided a contextual supplement to transcripts. The monitor reports, interview transcripts, and contextual notes were open coded in order to generate coding frames (Charmaz, 2006). ATLAS.ti v6.0, a leading qualitative data analysis software tool, was used to manage these empirical data. In the final step, a grounded coding frame was developed and applied to the raw data.

Before presenting the findings, there are several methodological weaknesses worth noting. First, the use of data availability as a means of case selection raises the possibility of selection bias. Similarly, the study's small sample size has the potential to limit the generalizability of the results, both to the omitted cases and beyond. The significance of variation between cases, including the nature of the misconduct at issue (e.g., racial profiling in some, excessive force in others), features of the affected organization (e.g., variations in agency size), and characteristics of the implementation system (e.g., the presence of an independent monitor in some jurisdictions and not in others) should not be overlooked.

These concerns are allayed somewhat by the universality of certain key substantive and procedural elements. Every pattern or practice reform effort to date, regardless of the implementation context or the misconduct at issue, has been built around a nearly identical set of substantive elements, including mandated changes to department policy, officer training, and the installation of an early intervention system. The various unifying features of the intervention and implementation processes, most significantly the role of the DOJ, also contribute to the study's external validity.

Third, the use of the snowball technique to acquire interviewees also raises some question of selection bias. Yet, the relatively low number of interviewees identified in this manner (17 %), and the high overall response rate tend to minimize concerns that a certain perspective is overrepresented.

Fourth, the process of coding qualitative data is inherently subjective. Unfortunately, because there was only one researcher involved in the process, it was not possible to either triangulate decisions made during coding of raw data or the development of the coding frame. In order to address this weakness, coding decisions were continually revisited in an attempt to ensure consistency across all sources.

Descriptive Findings

What follows is a comparative description of the implementation of pattern or practice reform with a focus on the time needed to reach substantial compliance with three key settlement components: (1) institution of mandated policy changes, (2) early intervention system development, and (3) revision of complaint investigation protocol. Table 1 describes the various sub-components required by each of the three components. In addition to this micro level, component-based analysis, implementation is also considered from the perspective of macro success, or the ability of each department to implement the terms of the entire settlement agreement.

Use of Force Policy Change

To implement the use of force-related components, each department was required to bring their existing policy into compliance with federal law and establish standard operating procedures in response to a use of force incident. As is documented in Table 2, this portion of the settlement presented a moderate challenge to the five affected departments. No jurisdiction was able to adhere to the established deadlines, which ranged from three to six months, though implementation occurred much more quickly in Pittsburgh than it did in either Washington, DC, Cincinnati, or Prince George's County. Detroit has

yet to satisfy this section of their agreement. In general, changes related to incident response were more difficult than the revision of use of force language. Cincinnati's experience is illustrative. The Cincinnati Police Department's (CPD) use of force policy was formally approved in the second reporting period, six months after the monitor's initial review (Cincinnati Independent Monitor, Second Quarterly Report, 2003, Jul., p. 15). Though there was some initial semantic disagreement between the DOJ and CPD leadership, those issues were overcome rather quickly.

The same cannot be said of incident reporting. A dispute developed over the comparative length and level of detail required by an officer's report following incidents that involved a 'take-down without injury' versus that required in the case of a take-down causing injury. CPD insisted that requiring officers to expend the same time and energy filing reports for non-injury takedowns, which are much more common than injury-producing incidents, would force officers to spend inordinate amounts of time on paperwork and ultimately detract from the CPD's ability to do its job properly. After nearly two years of negotiation, the DOJ relented, albeit on a trial basis, and CPD instituted a new policy permitting fewer reporting requirements for non-injury incidents (Cincinnati Independent Monitor, 10th Quarterly Report, 2005, Jul.).

Table 1: Pattern or practice settlement "micro" components under review

	<i>Sub-Component 1</i>	<i>Sub-Component 2</i>	<i>Sub-Component 3</i>	<i>Sub-Component 4</i>
<i>Micro Component 1: Use of Force Protocol</i>	Policy on officer use of force	Policy on street-level incident reporting	Policy on incident investigation by mid-level supervisor	Policy on supervision of mid-level staff
<i>Micro Component 2: Early Warning System</i>	System creation and development	Render system operational	Full system utilization	NA
<i>Micro Component 3: Citizen Complaint Protocol</i>	Expand means of complaint receipt	Internal investigation parameters	External agency investigation parameters	Compliance with 90-day limit on complaint resolution

Table 2: Pattern or Practice Reform Implementation – Descriptive Results

		<i>Pittsburgh, PA</i>	<i>Washington, D.C.</i>	<i>Cincinnati, OH</i>	<i>Detroit, MI</i>	<i>Prince George's County, MD</i>
Micro Component 1: Use of Force Protocol	Deadline	4 months	6 months	3 months	3 months	4 months
	Substantial compliance reached	14 months	84 months	60 months	NA	54 months
Micro Component 2: Early Intervention System	Deadline	12 months	21 months	19 months	30 months	25 months
	Substantial compliance reached	29 months	84 months	43 months	97 months	60 months
Micro Component 3: Citizen Complaint Protocol	Deadline	3 months	6 months	4 months	3 months	4 months
	Substantial compliance reached	98 months	84 months	45 months	99 months	60 months
Macro Settlement Agreement	Total components	83	194	120	154	120
	Agreement length	60 months	60 months	60 months	60 months	36 months
	Substantial compliance reached	64 months (4/97 – 8/02)	84 months (6/01 – 6/06)	60 months (4/02 – 4/07)	NA	60 months (1/04 – 1/09)

Early Intervention System

The second set of micro components required the implementation of an early intervention personnel management system. These systems are designed to provide departments with a means of tracking individual-level officer behavior across several settlement-related metrics, including use of force incidents and citizen complaints against. Early intervention systems are not only complicated and expensive to develop, but to function properly, require a substantial change in department culture and individual officer behavior. As such, they represented a sizable implementation challenge.

Once again, Pittsburgh was fastest to reach substantial compliance. After 29 months, the PBP had developed the physical infrastructure and demonstrated the capacity for full system utilization. The Cincinnati Police Department (CPD) also reached substantial compliance comparatively quickly, requiring 43 months to develop its version of the early intervention system. By contrast, departments in Prince George's County, Washington, DC, and Detroit required 60, 84, and 97 months, respectively.

Citizen Complaint Receipt and Investigation

Third, each department was required to reform their system for receiving and investigating citizen complaints. In most cases, those with little more than a formal change in policy (i.e., redefining eligibility and available avenues for filing complaints or re-establishing investigative parameters) were met with little resistance in any of the five departments. These changes demanded little in terms of resources and required minimal levels of organizational movement. Low hanging fruit, as it were.

Implementation of these policy changes was also quite smooth, though there were instances where departments struggled for brief periods to get investigators to adhere strictly to the revised protocols. In Cincinnati, for example, monitors noted several instances where investigators failed to reconcile evidentiary inconsistencies between officer statements and those given by witnesses (Cincinnati Independent Monitor, 14th Quarterly Report, 2006, Sept., p. 32–33). Though serious enough to undermine the legitimacy of an investigation, these types of setbacks, in Cincinnati and other jurisdictions, tended to be both sporadic and temporary.

Perhaps the area that presented the most substantial challenge was the stipulation that no citizen complaint investigation last longer than 90 days. As the monitor reports describe in detail, no jurisdiction proved consistently able to meet this

requirement. Three years into the settlement implementation, none of the five jurisdictions could consistently adjudicate citizen complaints within the requisite 90-day period more than 56 % of the time. And of the five jurisdictions, only Cincinnati satisfied this mandate without a two-year extension from the DOJ.

Macro Compliance

Four of the five jurisdictions achieved macro-level compliance and were released from federal oversight. Yet, as Table 2 highlights, only Cincinnati was able to meet the DOJ's five-year implementation deadline. Pittsburgh, which also agreed to a five-year reform, was bound by their agreement for 5 years and four months. For nearly three additional years, however, the DOJ continued to oversee the implementation of provisions related to Pittsburgh's Office of Municipal Investigations until April, 2005, owing to that agency's inability to investigate citizen complaints in a timely fashion (Ove, 2005).

Neither Washington, DC nor Prince George's County were able to meet their original settlement deadlines, and thus they were each required to accept an additional two years of federal oversight. The DOJ's agreement with Prince George's County, scheduled to terminate after three years, lasted a total of five; the agreement in DC was in place for seven years, from June 2001 through June 2008. Detroit remains under federal oversight, well past the five-year term agreed to in June 2003.

These findings raise at least three important questions. First, what explains the considerable variation in terms of the five jurisdictions' pace of implementation? Second, to what extent can we explain Detroit's failure to reach substantial compliance with the terms of its settlement agreement? And finally, what do these results say about the value of pattern or practice reform as a policy instrument?

Analytical Results

Several theoretically relevant factors help to provide insight into implementation successes and failures observed. This section begins with a discussion of those factors related to the problem driving reform and the particularities of the settlement developed to address it.

Problem- and Policy-related Factors

Though each settlement agreement was drafted to address a pattern or practice of excessive force, the specific nature of the organizational pathology varied from jurisdiction to jurisdiction. And in general, the agencies tended to experience more difficulty

implementing components central to the DOJ's investigation than those on the periphery. In Pittsburgh, for example, the DOJ was primarily concerned with what it saw as an absence of timely and independent investigations of officer misconduct, many of which were based on allegations of excessive use of force (US DOJ, n.d.). Implementation of settlement components designed to build capacity in this area proved tougher than did those addressing other areas. This is unsurprising, given the close connection between problem depth and the relative size of implementation challenges presented by related policy solutions.

A defining characteristic of most pattern or practice settlement agreements is the use of aggressive termination deadlines by which affected agencies are required to reach substantial compliance with all settlement terms. In Pittsburgh, Washington, Detroit, and Cincinnati, this termination date was set at five years; Prince George's County was given three years to reach macro compliance. A settlement agreement's macro deadline appears to be reflective of the DOJ's view of the depth of the organizational dysfunction and the jurisdiction's capacity to implement the mandated reforms, with those in need of more extensive changes given an extended implementation period.⁶

These macro deadlines appear to have had an effect on implementation, though the specific nature of that effect is somewhat ambiguous. In Washington, DC, for example, the drive to rid themselves of external oversight accelerated as the termination date approached, with Department leaders working to rectify problems that may have been allowed to languish in earlier stages of the implementation process (C. Lanier, personal communication, January 18, 2010). On the other hand, in Prince George's County, an approaching deadline appears to have prompted the monitor team to declare the Prince George's County Police Department (PGPD) in substantial compliance and terminate the agreement, despite signs that the department may not have been ready to operate without DOJ oversight.

Pattern or practice settlements are also defined by their use of component-specific deadlines. Every micro component is linked to an implementation deadline, typically ranging from 3 months to 25 months, depending on the nature of the required reform. By contrast, departments consistently missed micro deadlines, some by months and even years. In certain instances, they appeared to have been ignored entirely. Somewhat surprisingly, this never appeared to matter, either to monitor teams or the Justice Department. The component-specific deadlines seemed to be purely aspirational, as if they exist not

as a means of levying sanctions or forcing compliance, but as a way to define the best case scenario and imbue the process with some sense of urgency. Given what in retrospect looks to have been the unrealistically aggressive nature of the deadlines, their value, either as a motivational tool or as a measuring stick for progress, appears to have been limited.

Organizational Factors

Micro and macro implementation were affected by several organizational factors, beginning with the role of the police chief. In cases where leaders made compliance a priority, addressed problems swiftly and assertively, and took a personal interest in seeing implementation through, the effect on implementation was both tangible and positive. The view of Washington, DC independent monitor Michael Bromwich is emblematic. When Cathy Lanier replaced Charles Ramsey as chief,

she mobilized the department's resources internally ...[and] personally oversaw [implementation] more closely and intensely than Ramsey had....And [successful compliance] became very clearly a priority for Chief Lanier[;]...she very clearly communicated that to her people and they realized that there would be consequences if they failed. (M. Bromwich, personal communication, February 23, 2010).

Lanier's ability to push her agency through the final stages of implementation is consistent with earlier research, both in the context of pattern or practice reform (Davis et al., 2002; Stone et al., 2009) and organizational change more generally (Fernandez & Rainey, 2006). Leadership is a key factor in explaining the relative success of implementation efforts. In cases where department leadership was either hostile to the reform effort (as was temporarily the case in Cincinnati), allowed the process to fade from view (which some claim former Metropolitan Police Department (MPD) Chief Charles Ramsey did toward the end of his tenure), or was overwhelmed by the complexity of the reform effort (as data suggest was the case in Prince George's County), progress stalled. In Detroit, the ongoing reform has come to reflect the Detroit Police Department's (DPD) inconsistent and scandal-ridden leadership. The city has seen 7 police chiefs since signing the consent decree in 2003, many of whom were sidelined by personal and professional impropriety (e.g., Clinton, 2013; Muskal, 2012).

Data also indicate that even brief lapses in focus or the loss of attention to the issue by organizational

leadership can have detrimental and lasting effects on the reform process. In DC, for example, the monitor concluded that “MPD’s roll-out of the Use of Force General Order was not as effective as it could have been primarily because MPD’s initial efforts to train its officers were poorly coordinated and executed” (Washington, DC Independent Monitor, Third Quarterly Report, 2003, Jan., p. 5). MPD struggled to overcome these initial implementation problems with tangible effects. Five years into the reform process, only 36% of necessary use of force reports had been filed and of those, less than 60% reached the requisite level of quality (Washington, DC Independent Monitor, 17th Quarterly Report, 2003, Jan., p. 15). Ultimately, it took MPD seven years to implement successfully components related to use of force reporting (Washington, DC Independent Monitor, Final Report, 2008, Jun., p. 25–31).

While strategic focus is set in the chief’s office, evidence suggests that day-to-day implementation is in many ways a function of an agency’s mid-level supervisors. Sergeants and lieutenants were typically charged with overseeing the compliance efforts of street-level officers across various aspects of the reform effort, including use of force reporting, citizen complaint investigation, and the use of early intervention system data. In this position, these managers acted as a conduit between agency leadership and patrol officers and, as such, occupied a key position of accountability within each organization.

Results highlight not only import of mid-level staff but also mixed compliance with the required behavioral change. Monitor reports provide several examples where implementation progress was slowed by non-compliance among mid-level agency staff. In Prince George’s County, for example, supervisors failed to perform mandated oversight of use of force incident reports filed by street-level officers (Prince George’s County Independent Monitor, Sixth Quarterly Report, 2005, Dec.). In Cincinnati, mid-level supervisors appeared unwilling to perform the necessary staff intervention or take the appropriate disciplinary measures against those officers identified by the Department’s early intervention systems (Cincinnati Independent Monitor, 13th Quarterly Report, 2005, May).

Other jurisdictions experienced similar delays as a result of mid-level supervisor recalcitrance. Monitors in Prince George’s County attributed delays in implementing use of force reforms directly to the refusal of supervisors charged with reviewing incident reports to evaluate the appropriateness of force used, as was required by the settlement agreement (Prince George’s County Independent Monitor, Third Quarterly Report, 2005, p. 5).

Consistent with the hierarchical structure of most police departments, street-level officers are often influenced by the attitudes and behavior of their supervisors. In most instances, this influence manifested positively. Patrol officers were largely praised for their support of and compliance with the terms of the settlement: They submitted to interviews with citizen complaint investigators, attended mandatory training sessions, and, perhaps most importantly, shifted their approach to the use of force. There was also some evidence of resistance. Officers in all five jurisdictions, for example, took considerable time to implement new use of force reporting requirements, and in some cases openly refused to comply with certain changes in policy. But these conflicts occurred on the margins and tended to present only temporary problems. When measured in terms of strict compliance with settlement agreements, the abuse of discretion that concerned Lipsky (1980), and has preoccupied police leadership and scholars from several academic fields, failed to materialize. This pattern of compliance occurred in spite of what some saw as inadequate resources.

Monitor teams from all five jurisdictions charted with frustration the difficulties associated with meeting the requirement that citizen complaint investigations were to be completed within 90 days. In every case, investigative delays and resultant case backlogs were attributed at least in part to an inability among jurisdictions to find money in the budget for officers and civilians willing and able to perform the job with speed and accuracy. Similar financial challenges plagued the development of early intervention systems in Washington, DC, Prince George’s County, Cincinnati, and Detroit. In the absence of resources needed to fund development of these expensive technological systems, implementation of related settlement protocols was delayed in each jurisdiction.

Resource shortages also help to explain Detroit’s ongoing macro compliance problems. The City’s financial trouble runs much deeper than in other jurisdictions (Davey & Walsh, 2012). Since 2003, DPD has lost one third of its police officers. Longstanding budgetary shortfalls have prevented city and Department leaders from hiring replacements, despite rising violent crime rates (Hunter, 2012). Basic repairs remain unaddressed while officers go without essential equipment (Cohen, 2014). On top of this, DPD officers were recently forced to take a ten percent cut in salary (Helms, 2013), a move that capped a decade long decline in officer morale (Lue, 2013). Implementation of wholesale organizational changes is a notorious challenge; in this context, it has proved to be near impossible.

Contextual Variables

Four environmental factors stand out as affecting both micro and macro implementation: (1) the role of constituency groups, and (2) the nature of political support for the reform effort, (3) judicial oversight of the process, and (4) the influence of independent monitoring.

In nearly every case, pattern or practice agreements are negotiated and implemented by a small group of key stakeholders, including DOJ lawyers, representatives from the mayor's office, and police department leadership. Affected constituent groups, from the department rank and file and organized labor to minority community interests and others, are typically excluded from the policy development phase along with members of a jurisdiction's legislative branch. In addition to raising serious questions about the democratic legitimacy of the process – and its product – the settlement negotiation necessarily generates a correspondingly centralized, top-down implementation process. All five jurisdictions under review reflect this dynamic to one degree or another.⁷

Results indicate that blocking constituency group access to the settlement negotiation and implementation processes may on some level make getting the reform effort off the ground much less complicated. In Washington, DC, for example, Police Chief Charles Ramsey's decision to request the DOJ investigation was made and carried out without participation or approval from the rank and file, something Ramsey believes was a practical necessity despite presenting minor, short-term costs in the form of internal opposition (C. Ramsey, personal communication, May 20, 2010).

In Pittsburgh, however, the decision to exclude the police labor union, and with it the voice of the rank-and-file officer, helped to engender a very contentious, almost hostile, implementation environment with long-run ramifications. The union opposed the process from the outset and to the extent possible, fought the implementation of reforms throughout (R. McNeilly, personal communication, March 1, 2010).

On the other hand, in Cincinnati, a private settlement between the CPD and several community groups, known as the Collaborative Agreement (CA), was implemented alongside of the DOJ's Memorandum of Agreement and helped to create a different set of contextual circumstances. As a direct result of their involvement in negotiating the terms of the CA, organizations like the ACLU and the Black United Front, as well as the City's Fraternal Order of Police, were placed at the center of the pattern or

practice reform effort, rather than being left out (Cincinnati Collaborative Agreement, 2002).

Of course, a more inclusive process may present certain short-run costs. Negotiating the terms of the settlement can be much more contentious and may ultimately take longer. Cincinnati's decision to adopt a more democratic process did lead to a few relatively minor implementation delays and may have contributed to the temporary revolt by CPD leadership. But if there is a way to reach consensus – and Cincinnati shows us that it is possible – then there may be hope that a more inclusive negotiation process could produce a more legitimate end-result. In fact, according to former Cincinnati monitor Richard Jerome, this inclusivity, particularly in the case of the city's police union, yielded direct benefits: “having [the union] at the table, as opposed to kind of outside and criticizing – I remember Pittsburgh very well – helped tremendously.” (R. Jerome, personal communication, March 24, 2010).

This study's findings are also consistent with the notion that support from political principals may facilitate—or hinder—the policy implementation process. Belief among executive branch leadership in the wholesale changes that come with a DOJ settlement is correlated with successful implementation. This confidence is most critical at the earliest stages of the reform. In describing early meetings with Mayor Anthony Williams, Washington DC's former Chief Charles Ramsey alluded to the fact that opposition from the mayor could have severely complicated Ramsey's decision to pursue DOJ-led reform: “The mayor was very supportive.... I explained the situation to him. I explained what I thought needed to be done. And it was risky” (C. Ramsey, personal communication, May 20, 2010).

Though such tacit support (i.e., the absence of overt opposition) for the process among political principals is a necessary component of successful pattern or practice implementation, it may not be sufficient. Proactive, public support among political officeholders can also imbue the process with a certain institutional legitimacy. For example, after a high-profile conflict between CPD leadership and the monitors, the Cincinnati City Council passed a resolution “expressing the continued commitment of the City to achieve the goals as stated in the MOA with the DOJ...and to continue to work with the Parties to [that] agreement to accomplish the mutually agreed objectives” (City of Cincinnati Independent Monitor Quarterly Reports, Ninth Quarterly Report, 2005, p. 4). This symbolic gesture had the effect of galvanizing public support for the process and putting increased pressure on the CPD leadership to reorient itself toward full compliance.

Evidence from Cincinnati also emphasizes the potential value of not just supportive but capable, proactive political leadership. Cincinnati monitor Richard Jerome was one of many key stakeholders who praised the efforts of City Manager Milt Dohoney:

Probably the biggest reason why Cincinnati was successful was a change in the city management. And when Milt Dohoney came in... he recognized the advantages to bringing change to the police department in terms of a different approach to policing, a different approach to police/community relations....[Dohoney] basically told the chief, you know, we need to change (R. Jerome, personal communication, March 24, 2010).

The strength of Cincinnati's political class helps to highlight the significance of Detroit's failure along these lines. Former mayor Kwame Kilpatrick, elected in 2001, is now serving time in a federal prison for charges stemming from a widespread bribery and corruption scheme (Yaccino, 2013). Kilpatrick's criminality was more than simply a distraction from the police reform effort; in 2009, an inappropriate relationship between Kilpatrick and Sheryl Robinson Wood, the independent monitor charged with overseeing the implementation of DPD's consent decree, was exposed (Elrick, Swickard, Schmitt, & Patton, 2009). Wood was immediately removed from her position, leaving questions about the legitimacy of her six years on the job (Guthrie, 2009). At the time of her removal, DPD was only 36% compliant. Less than two years later, under the oversight of a new monitor team, hired by a newly elected Mayor, 72% of the settlement had been implemented (Wattrick, 2011).

The importance of the independent oversight these monitor teams provide cannot be overstated. In all five jurisdictions, monitor teams established the parameters for compliance and set the agenda, pace, and tone of the reform process. In this capacity, they provided to department leadership both technical advice and objective information about the department's progress. Monitor teams also served as the conduit between the DOJ and the affected department, establishing a necessary link between a top-down, "DOJ-driven" effort and the goals, priorities, and day-to-day operational emphases that define a bottom-up approach to organizational change.

To varying degrees, the presence of a team of outside experts overseeing the process focused the departments' energy on compliance and minimizing

the likelihood that other organizational priorities interfered with implementation. Regular status meetings, which took place in each jurisdiction, were designed to promote a steady, incremental approach to implementation. When functioning properly, these meetings allowed the monitor to bring issues of concern to the attention of department leadership and to ensure that certain issues remained on the agency's agenda. Washington, DC monitor Michael Bromwich's description of his experience with former MPD Chief Charles Ramsey is illustrative:

I went to him a very small number of times with what struck me as important enough problems that I needed a special meeting with him. And I said, this is broken. You need to fix this. And he did, almost immediately (M. Bromwich, personal communication, February 23, 2010).

The value of the monitor seems to square with existing theory on the import of actors capable of working entrepreneurially to help bridge implementation challenges (Bardach, 1978) and those who provide external accountability (Cooper, 1988). What is more, these results further emphasize the values of flexibility and adaptability (Majone & Wildavsky, 1979), as well as an understanding between both monitor and agency leadership that collaboration is a key to successful implementation. In cases where the presence of an outside monitor was not enough to elicit compliance, the enforcement authority that rests with members of the federal judiciary proved invaluable.

A high-profile incident from Cincinnati illustrates the point clearly. Two years into the reform effort there, a dispute erupted between the CPD and the independent monitor team. After a weeks-long standoff, which many insiders believed threatened to derail the entire reform, the monitors approached federal district court judge Susan Dlott seeking a resolution (Report to the Conciliator, 2004). Dlott threatened to hold then-Chief Thomas Streicher in contempt of court for noncompliance, which, if levied, would have resulted in jail time. Monitor reports and several interviews confirm that judicial intervention led not only to a settlement between CPD leaders and the monitor but also prevented any negative effects of the disagreement from metastasizing (Cincinnati Independent Monitor, Final Report, 2008, Dec.).

As in Cincinnati, the federal judge overseeing the reform in Detroit, Julian Cook, has been instrumental in helping to address major problems. He was instrumental in the removal of former monitor Sheryl Wood. Cook's formal authority,

together with his ongoing attention to the reform effort, has helped to keep alive a process threatened by scandal, leadership uncertainty, and financial calamity (Damron, 2013). Though there was no direct interaction with presiding judges in any of the other three jurisdictions, interview data indicate that the specter of judicial enforcement served to deter noncompliance.

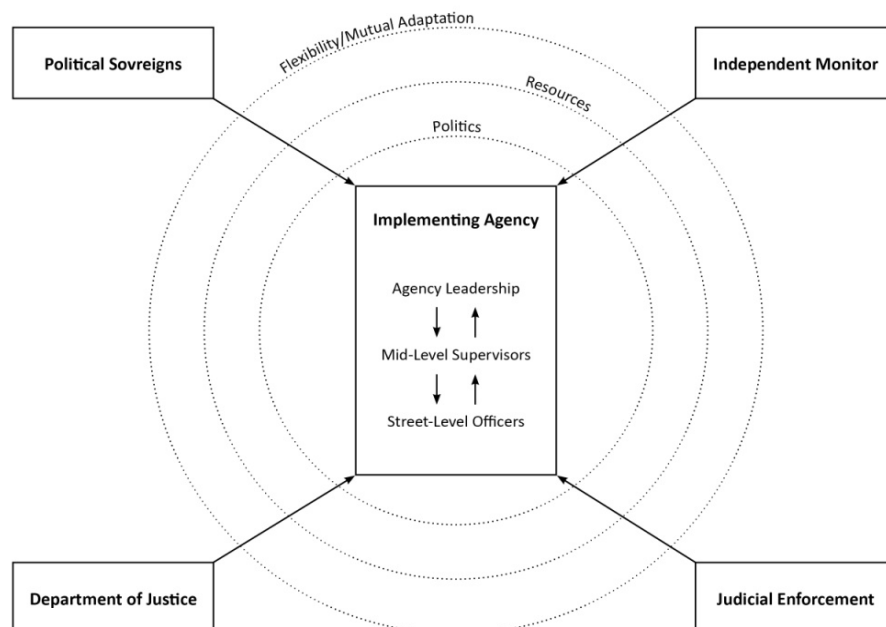
For its part, the DOJ maintains the right of final approval over all departmental changes made pursuant to the settlement. This unique leverage delayed the process in each of the five jurisdictions but ultimately helped promote outputs reflective of both the letter and the spirit of the original agreement. In the case of Washington, DC, for example, implementation of the use of force policy component lasted 84 months, far longer than the other jurisdictions with the exception of Detroit. According to the DC monitor and several other actors involved in the negotiation, these delays occurred largely as the result of a dispute between the DOJ and the MPD over how to manage use of force incident reporting (C. Lanier, personal communication

January 18, 2010; M. O'Connell, personal communication, 2010). A similar semantic disagreement extended the Cincinnati Police Department's implementation of the use of force policy component as well. Cincinnati's delayed approval was largely owing to an extended negotiation between the CPD and the DOJ over reporting requirements following incidents in which an officer engaged in a "take down" without injuring the suspect compared with incidents in which the suspect was injured (City of Cincinnati Independent Monitor, Final Report, 2008, Dec.).

Discussion

Despite considerable challenges and unique differences between each, four of the five jurisdictions considered in this study reached substantial compliance within five to seven years of settling with the DOJ. These results derive from the interaction (or absence) of several variables, which together produce a complex "implementation system" that serves to promote (or inhibit) reform.

Figure 1: The Pattern or Practice Implementation System



At the heart of this system is capable organization staffed with officers supportive of the process. This begins with a strong, capable, and assertive leader. The most successful leaders, including McNeilly (Pittsburgh), Ramsey and Lanier (DC), and Streicher (Cincinnati) were actively involved in the reform, which allowed them to set the agenda and tone for implementation, driving compliance down through the chain of command. In part owing to the quasi-militaristic nature of these departments, the centralized process worked quite well. In most cases, patrol officers and mid-level supervisors were compliant; the few instances of opposition tended to be short-lived and relatively minor in scope.

Though a necessary component, support among agency staff alone is insufficient. In each jurisdiction, a willingness and ability among implementation system actors to mutually adapt to changing conditions (i.e., make adjustments to both the content of the settlement reform and the implementing agency's approach to reform) helped to promote substantial compliance. In several instances, flexibility on the part of DOJ attorneys, independent monitors, and police leadership was critical for either avoiding altogether or minimizing potential problems that may have led to implementation delays. In some instances, key actors from each participant group (the police, the monitor team, and the DOJ) served as acute problem-solvers, or fixers (Bardach, 1978). Compromises reached over disputed terms of Washington, DC's settlement agreement and confusion over the proper role of the monitor in Cincinnati are examples that further highlight the importance of a flexible approach, a shared understanding of the broad goal of the process, and a willingness to place agency reform over individual preferences.

Quite logically, the availability of resources affects the interaction between both internal and external actors, in the process further defining the implementation system. Sufficient financial resources – money to pay for the technology needed to develop and utilize the early intervention system, to provide additional officer training, to hire additional complaint investigation staff, and so on – are imperative. Of course, without the necessary finances, the kinds of wholesale change mandated by pattern or practice reform is much more difficult to accomplish. Similar challenges are created by the absence of qualified and committed labor resources. These findings are consistent with existing theory. Few if any implementation efforts occur without a willing and capable set of actors or adequate resources. These results also highlight the value of two less common elements: external oversight

provided by independent monitors and the constant presence of the Department of Justice. Implementation and reform efforts in other contexts would surely benefit from the managerial expertise and external accountability provided by the pattern or practice monitors. Several examples from all five jurisdictions highlight the import of a well-informed, well-connected, yet objective voice managing the process. That the monitor teams have the weight of the federal court and the DOJ behind them adds to their legitimacy and effectiveness.

The interaction of these several variables and the role they play in moving an affected department toward substantial compliance is an important finding and one that no doubt has the potential to facilitate forthcoming reform initiatives. Future research should work to explicate the relationship between each element and work to further clarify the effect that the presence or absence of individual elements has on the implementation process. A closer look at the results also suggests that declaring pattern or practice reform a success based on macro compliance alone undermines the complexity of the process and the true value of a reform effort of this size and scope.

The DOJ relies on the language, goals, and enforcement strategies typical of contractual enforcement, rather than policy implementation or organizational reform, to bring affected departments into compliance with the law. As a result, both the means and ends of pattern or practice reform are driven by legal concerns; the process is defined by the goal of creating an agency that complies with the law. This approach emphasizes process over substance and short-run compliance over long-term reform. Heavy weight is given to the symbolic value of the initiative; evaluation is a function of the presence or absence of mandated contractual changes, not the substantive value of the process, the functionality or sustainability of the new systems, the durability of agency priorities, changes in officer cultures, or any other policy-driven output or performance-related outcome. The central assumption underlying this approach is that the presence of new policies and systems will automatically translate into desirable policy-related outcomes and a police culture respectful of civil liberties and legal values. In other words, embedded in the process is a definition of implementation that conflates fidelity to the language of the policy with the depth of organizational change.

Not only does this thinking ignore decades of research and practical experience warning against such assumptions, but it renders broader evaluation or analysis exceedingly difficult. As evidence of this exclusive focus on contractual compliance, the

discussion of key substantive issues – e.g., actual incidence of officer use of force, citizen complaints, or civil litigation – is largely omitted from monitor reports. Perhaps this is because the parties involved assume that such measures are incorporated into the imprimatur of “substantial compliance,” which obviates the need to report on anything other than the time needed to achieve such ends.

What is more, the DOJ’s legal approach limits the analysis to the timeframe of the settlement agreement itself. Once the department is found to be in compliance, the reform process is terminated and with it all external oversight. In other words, what happens after the oversight process appears to be irrelevant. Substantial compliance, then, is wholly unrelated to the sustainability or durability of the reform. Again, the assumption, both on the part of the DOJ and affected jurisdictions, seems to be that if and when a department successfully installs the pattern or practice reform template, then that department has automatically become a model of constitutional, accountable policing. And further, that this model is self-sustaining.

Several additional observations highlight the point. The wide disparity in time needed to implement various micro components, both within and between jurisdictions, suggests a complexity to the process that is obviated by an exclusive focus on macro compliance. Certain tasks appear to have presented a challenge, while others seem to have been relatively simple to implement. Not surprisingly, many of those causing difficulty were directly related to the substantive issue driving the initial DOJ investigation.

There are examples from four jurisdictions where reaching compliance for these components took the entire duration of the reform period. By granting substantial compliance so near to the date when the agreement was terminated necessarily meant that monitor teams were not able to observe the department as it worked to maintain this high level of performance. What is more, such an approach seems to minimize the importance of each micro component as a stand-alone policy instrument, favoring instead the view that their value was largely as a piece of the broader reform template. This overlooks the considerable time, money, and effort expended by each department to implement specific settlement components. Evidence that both the DOJ and independent monitors stressed the value of macro deadlines but paid little attention to micro deadlines strengthens the point.

From this one must draw at least two conclusions. First, the pattern or practice initiative is designed and managed to create a standardized version of a “lawful, accountable” police department,

not necessarily to remedy each organization’s specific operational problems. And second, the implementation process heavily favors fidelity to the language of the settlement agreement over the depth of organizational change. Clearly, there is significant demand for future research that evaluates the propriety of the DOJ’s assumptions about the pattern or practice reform process and the substantive value of the initiative.

Conclusion

The DOJ’s pattern or practice initiative requires affected jurisdictions to implement a series of complex, protracted reforms in order to reach compliance with the federal law. The weight of both theory and practical experience suggest that such an undertaking will be fraught with challenges and likely to end in failure. Such has not been the case in the vast majority of jurisdictions that have come under federal oversight, including four of the five examined here. The implementation system—defined by the legal authority under which the implementation proceeds; independent oversight; and well-resourced, highly motivated organizations that are typically led by reform-minded chiefs—is indeed both unique and effective.

Yet, there are reasons for caution. This system emphasizes fidelity to the terms of the settlement almost exclusively over other important values. The success documented here is on some level a reflection of the DOJ’s narrow definition of implementation; dosage, or depth of change in each organization, is of secondary concern. The DOJ appears to treat pattern or practice settlements as a general contract between parties, not a policy instrument crafted to achieve specific, substantive ends.

Despite the utility of the legal construction, it is also possible – and valuable – to view pattern or practice settlement agreements through a policy lens. Though not entirely severable from the legal goals of the process, the policy manifestations of accountability-driven reform, including a shift in a department’s view of citizen rights, changes to organizational culture, reduced levels of undesirable outcomes like use of force incidence, and department civil liability, must also be considered, both by participants and scholars alike. Implementation of systemic and organizational reforms is an important end in itself, but such changes are more appropriately thought of as means to other ends, the likes of which are only understood when the process is framed in terms of policy rather than law.

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Endnotes

- ¹ Several of the police departments found to exhibit a pattern or practice of misconduct were in violation of more than one law/right/principle. Data on DOJ investigations and settlements are on file with the author.
- ² The Department of Justice has failed to negotiate settlements with two jurisdictions: Columbus, OH and Maricopa County, AZ. In October 1999, the DOJ initiated the first suit under the authority of Section 14141. The complaint filed against the City of Columbus, OH, alleged a “pattern or practice of unconstitutional excessive force, false arrests, false reports, and illegal searches by Columbus Division of Police (CoDP) officers” (*U.S. v. City of Columbus*, 1999). In September 2002, the parties resolved the dispute with an informal agreement that granted the DOJ authority “to review CoPD procedures through December 2003. If the Justice Department determines that a pattern or practice of misconduct exists, it has the authority to re-file the lawsuit” (U.S. Department of Justice, 2002, para. 2). On December 15, 2011, the DOJ announced that a lengthy investigation into the Maricopa County Sheriff’s Office had uncovered a pattern or practice of discriminatory policing (*U.S. v. Maricopa County*, 2012). In May, 2012, following months of unsuccessful negotiation, Justice Department attorneys filed suit against Maricopa County, AZ. Litigation is ongoing (*U.S. v. Maricopa County*, 2012).
- ³ This is true whether the settlement is memorialized in the form of a consent decree or memorandum of agreement.
- ⁴ The full list of possible cases, including those eliminated for time or data-related reasons, is on file with the author.
- ⁵ Full list of interviewees on file with author.
- ⁶ Unfortunately, the Special Litigation Section has not commented formally on this issue, so this is, at best, informed speculation.
- ⁷ For example, former Pittsburgh City Solicitor Susan Malie describes the DOJ’s approach: “They never spoke to a single police officer in their investigation of the ACLU’s allegations. So we sort of had this image of the Justice Department interviewing this list of complainants without really getting the other side” (S. Malie, personal communication, April 1, 2010).



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Guns for Hire: North America's Intra-continental Gun Trafficking Networks

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ABSTRACT AND ARTICLE INFORMATION

Since Canada adjoins the largest weapons market in the world, it is unsurprising that guns used to commit criminal acts in Canada largely originate in the United States. But how are such weapons transported across the border: by individual entrepreneurs, by small networks, or by sophisticated cartels? This article analyzes six cases that resulted in prosecutions of 40 Canadian and American citizens implicated in Canada–U.S. gun trafficking networks between 2007 and 2010. This study is a plausibility probe that applies social network analysis—investigating networks that come into existence by the creation of pairwise links among their members—to analyze global structures, identify brokers and their roles, and discover patterns in the way guns are being procured in the United States, transported across the border, and distributed in Canada. In the process, this study generates hypotheses about network structure and works towards modeling these networks functionally: Since guns are available legally in the United States, we expect to find a proliferation of relatively simple networks. In contrast, drugs, which are not as readily available, might require more sophisticated networks to be trafficked across the border. Results revealed that the trafficking network structures seem to be driven by function. When the objective of the network is mere rent-seeking, transborder trafficking networks for guns tend to be simple. By contrast, when the objective is to manage violence as a constituent element of a larger criminal organization and its activities, networks tend to be more sophisticated, although the gun trafficking networks remain simpler.

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In November of 2008, a family in Guelph had their car and house shot at by a neighbor while he was high on cocaine. A month later, a 26-year-old Ottawa man was shot dead answering his door. The following month, three people were held at gunpoint during a robbery in Vaughan (Powell, 2009). These violent crimes share a common denominator: each

was committed with a gun traced back to Ugur Yildiz, a Chicago man who ferried over 200 firearms into Canada (Thompson, 2009). Two-thirds of all guns used in Canadian crimes originate in the United States (Cook, Cukier, & Krause, 2009). Indictments for gun trafficking and the number of guns seized per investigation has trended upward (RCMP, 2007). In

2011, the number of guns seized by the Canada Border Services Agency had doubled (to 673) from the number seized in 2006. Also in 2011, Canadian police seized a total of 33,727 guns nationwide (McKie, 2013). Statistically, the majority of these guns must have originated in the United States.

This article is a plausibility probe—a preliminary study on relatively untested theories and hypotheses to determine whether more intensive and laborious testing is warranted (George & Bennett, 2005)—that applies social network analysis (SNA) to understand structures, identify brokers, and discover patterns in the way guns are being procured, transported across the border, and distributed. Instead of falsifying a proposed theory, the objective is to refine the theoretical dynamics and conceptual framework and to formulate hypotheses. Two properties of the transported objects are key: first, the ease of acquisition; and second, the profit margin per object transported. Since guns, in contrast to drugs, are available legally in the United States, we expect that the acquisition segment of networks will be simpler for gun transport networks. Profit per gun is substantial; in contrast, while the profit for a single drug shipment may be substantial, it must be broken up into smaller units for sale. This suggests that the Canadian component of cross-border transport networks will differ as brokers play different roles. The ready supply of guns in the United States means that trafficking can be easily accomplished, as it only requires individuals willing to cross the border to ferry guns into Canada. We, therefore, expect that there may be a number of single actors who are smuggling guns. However, if this is being done on a larger scale, then the critical factor is the need to find a market for the smuggled guns. This suggests a hub network with a broker on the Canadian side directing a set of mules that actually cross the border. There is no need for network structure on the American side since purchases can be made legally in several jurisdictions. The vulnerability in such a network is the broker. Therefore, we might expect that cut-outs could be used to separate the mules from the broker so that detection at the border would not lead immediately to the broker and disrupt the entire network.

Although gun trafficking has become a prominent issue, it has received little academic attention. This is primarily due to data limitations and the unsophisticated nature of the trafficking networks. Canada-wide, the homicide rate has plateaued or declined in recent years. In 2010, Statistics Canada recorded the lowest homicide rate since 1966. Between 2007 and 2010, the rate of handgun-associated homicide declined by 23% (Mahoney, 2011). Toronto registered 1.59 homicide

deaths per 100,000 people in 2011 (Vandaele, 2011), much lower than comparably sized American cities, such as Houston (17.2 per 100,000; Gazdic, 2007). Gun violence has been on the rise, nonetheless (Cook et al., 2009). The proliferation of Canadian street gangs has been accompanied by an increase of 500% in gang-related homicides between 1991 and 2008, as these gangs have been emboldened by guns (Linden, 2010). The Criminal Intelligence Service Canada noted that guns are used for both offensive and defensive purposes, as gangs aim to protect their interests or look to expand (CISC, 2010). A trend of random public shootings demonstrates how guns weaponize conflict between street gangs at the cost of innocent bystanders. Examples in Toronto include the death of Jane Creba, aged 15, who was shot on Yonge Street on Boxing Day 2005 (Scallan, 2012) and the Eaton Centre shooting on June 2, 2012, which claimed the life of two men and injured four more, including a 13-year-old boy (Criger, 2013). Violent gangs, random shootings, and media sensationalism heighten feelings of insecurity, pushing the issue of illicit guns into the public consciousness (CBC, 2012b). 2005 was dubbed the “Year of the Gun” by the Toronto media, as the number of gun-related homicides reached a record of 52 out of a total of 80 murders for the year, almost double the previous year’s total (Gazdic, 2007).

The first section of this article establishes the research problem and suggests what findings can be expected when studying transborder gun trafficking. The application of SNA as a method is explained, including an overview of terms regarding network structure, as well as definitions for brokerage, degree centrality, and betweenness centrality. The next section summarizes the cases to which SNA is then applied. Six diverse cases were selected as a representative sample that contrasts chain and hub transborder gun-trafficking networks over the last decade. All cases feature individuals arrested ($n=40$ subjects) and convicted for transborder gun-trafficking. The cases range from a few individuals bringing guns over the border to larger networks operated by street gangs or international crime syndicates. This range is representative of the spectrum of gun trafficking across Canada. The article concludes by situating transborder gun-trafficking networks in the broader context of SNA.

Research Problem

Research on Mexican drug cartels conducted by Payan (2006) demonstrates the degree to which legitimate cross-border movement can be exploited for nefarious purposes. As North America becomes more integrated, free-trade agreements, such as

NAFTA, actually facilitate the trans-border movement of both legitimate and illicit goods, people, and services (Hufbauer & Schott, 2005; Teslik, 2009), weapons, money, technical support, or other assets that enable violent extremist and organized criminal activities. Coordinating behavior, sharing information, and building relationships make networks effective for legal and illegal activity alike (Raab & Milward, 2003). Canada's federal government strictly regulates possession, storage, and transport of guns and ammunition, making it nearly impossible for gang members to obtain a firearm legally. Regulations on gun ownership are much weaker in the United States and vary by state. The mere existence of a border therefore offers an incentive to cross (Donnan & Wilson, 1999). By virtue of creating markets of opportunity, the border can affect marginal costs and, consequently, strategic behavior. Only a minor fraction of all crime guns in Canada are domestic, as this requires acquiring guns from stockpiles amassed through corruption or theft. This risky and unreliable practice is also expensive, as it includes bribes or robberies (Cook et al., 2009). Instead, criminals turn their attention south of the border. While some just drive across to pick up guns for themselves, brokers can supply entire gangs whose sustained demand can keep trafficking networks in business.

Guns and drugs often go hand in hand, in part because violence is an element of criminal enterprise. The competitive nature of the drug trade fuels violence between criminal groups, which drives up demand for firearms (CISC, 2010). *Guns for drugs* exchanges are common, which indicates the commoditized value of illicit firearms. However, gun and drug trafficking differ. Drug trafficking has long been prioritized as a public concern, whereas smuggled guns have only recently gained notoriety. Since drugs are illegal (although not necessarily criminal) in both the United States and Canada, a smuggling operation requires some level of sophistication on both sides of the border. Guns, by contrast, are available legally in the United States. The law is only broken when the guns are not declared upon entry at the Canadian border (and perhaps beforehand if serial numbers are removed). Furthermore, gun running can be opportunistic because it can yield considerable profit without a vast distribution network. A gun procured in the U.S. can sell for ten times its original price in Canada (Poisson & Bruser, 2013). Drugs, by contrast, require an extensive distribution network at the local level. The working hypothesis of this article is that borders impose transaction costs, but that it is not marginal cost, per se, that determines variation in the structure of transborder gun and drug trafficking networks.

Instead it is their purpose: if the motive is rent-seeking of easily saleable commodities, then simple networks suffice; however, if the motive is managing violence as part of a constituent element of criminal enterprise and/or the commodity requires downstream handling to realize profits, then more complex networks are required.

Networks have advantages over both hierarchies and markets. Hierarchies are the traditional mode of organizing; they are differentiated horizontally through divisions between units and vertically through levels of authority. Markets involve no consciously designed organizational structure, with the logic being that activities are loosely coordinated through price and contractual arrangements, and the law is resorted to as an instrument for resolving disputes between parties. Networks involve repetitive exchanges between a set of autonomous but interdependent organizations to achieve particular objectives. Networks balance the 'reliability' of hierarchies with the 'flexibility' of markets, making them a more efficient way for organizations to acquire resources and manage risk (Ebers, 1997) and to provide more effective means to manage complex problems requiring coordination between organizations (O'Toole, 1997).

Networks are widely recognized as the dominant social structure of criminal enterprises (Buchanan, 2002; Featherstone et al., 2007; Magourik et al., 2008) insofar as they link self-interested actors working towards common goals (Powell, 1990). Networks make it possible for criminals to overcome collective-action problems arising out of complexity and the uneven distribution of assets. Networks compensate for inadequate resources, identity, culture, emotions, elite access, ideological support, and recruits (Eilstrup-Sangiovanni & Jones, 2008; Giraldo & Trinkunas, 2007; Gunning, 2008; 2009). They "provide flexibility, adaptability, deniability, multidimensionality, and the capacity to do things at a distance, often through surrogates" (Sheffer, 2005: 159).

Method

Social network analysis is a well-established approach to understanding 'dark networks' (Milward & Raab 2006; Raab & Milward, 2003), including criminal enterprises (e.g., Malm & Bichler, 2011; Malm, Kinney, & Pollard, 2008; Morselli, 2010; Morselli & Giguere, 2006). SNA makes it possible to assess the nature of the relationships between actors and demonstrate the shape and structure of the network as whole. This is crucial for understanding the flow of resources and information in a network

and for utilizing the concepts of brokerage, degree, and betweenness centrality defined below.

Network structure may arise by design, as for example, when a business constructs an organizational chart to manage coordination and governance. However, many real-world networks are constructed because of the accumulation of pairwise connections, each of which is made locally by the two individuals concerned and with an element of serendipity. The properties of such a network are emergent, but the resulting structure may also be constrained by purpose and so can be revealing of “what works.” If the network does not contain the required actors, or if they cannot communicate as required, then the network is unlikely to be effective. Network structures matter because they dictate the flow of resources and information. Networks can take on a wide variety of forms, such as hub, all-channel, chain, and multi-player, but this article will focus on chain and hub. Chain networks connect nodes in a simple path: nodes are connected only to a single neighbor in each direction, except for the initial and final nodes. Hub networks have a single central node (or perhaps a small central core of nodes) connected to other nodes in a star: The peripheral nodes have few, if any, connections to other nodes. On the one hand, the central node provides the only connection between the other nodes; therefore, it has a high level of control or leverage. On the other hand, the central node is a single point of failure, and so a vulnerability, for the network. Multiplayer networks feature multiple central nodes. This allows for several brokers within one network, increasing the complexity and size of multiplayer networks compared to chain or hub networks.

Brokers have a positional advantage within networks, as they bridge structural holes (unconnected groups of actors), and have greater access to information, opportunities, and skills.

Degree centrality is a measure of the number of links that each node has—how well connected it is locally. Betweenness centrality is a measure of how often paths between other pairs of nodes pass through each node—how much it acts as a bridge between other parts of the network (Morselli, 2010). An ideal broker in a criminal network is a node that connects many parts of the network, and so has high betweenness centrality, but has few actual connections to other nodes, and so has a low degree centrality (Morselli, 2010, p. 386). This allows such a broker to manage the flow of information and resources in a network without being widely known and so vulnerable to identification and arrest when others are (Morselli, 2010, p. 384). However, while this configuration is ideal, it is also rare. Networks (especially smaller ones) will often feature one or two brokers with both high degree and betweenness centrality (Morselli, 2010).

When data limitations make the quantitative measurement impossible, the default is a qualitative approach. Notwithstanding the lack of quantitative measures, this is possible because ultimate decisions about the strength and frequency of ties were reduced to one of only four possible positions in the centrality matrix depicted in Table 1.

Interactions were defined as meetings, personal relationships, or the exchange of goods. Data were pieced together from various police reports and new articles. The resulting coding decisions regarding actors’ centrality was not an exact science. Nonetheless, they were sufficiently robust and reliable for clear distinctions to emerge among actors who are (1) high in one form of centrality, but (2) low in another, and (3) those who are high in both. Actors who were described as bridging network gaps were coded as having high betweenness centrality, while more isolated actors were coded as having low betweenness centrality. Based on the data, these bridges were shown to occur when one actor interacted with two different networks,

Table 1: Centrality Matrix

High in degree, low in betweenness	High in betweenness and degree
Low in betweenness and degree	High in betweenness, low in degree

providing a link between them, and enlarging the network in the process. Case-by-case results are depicted below in the context of the analysis of each network, comparative results are summarized as part of the subsequent discussion in Tables 2 and 3.

To understand the structure and operation of gun trafficking networks, as well as the implications that follow for deterrence, detection, disruption, dismantling, and public policy, this plausibility probe analyzes 6 networks involving 40 individuals. It is a plausibility probe insofar as the cases and data, although chosen to be representative, have inherent limitations. Omitted variables and selection bias mar the data because the criminal justice system may oversample individuals lower on the “food chain” where prosecution is more likely. For instance, none of the six cases involve cut-outs between mules (cross-border contraband carriers) and brokers (distributors). Quite possibly, gun networks do not use cut-outs, or it may be that the “successful” ones do and, as a result, have not been detected. Scope conditions were limited to cases with successful prosecutions; unsuccessful prosecutions may yield different results, but there is a lack of information regarding this outcome. Each network may also have missing edges because 250 subjects were arrested across the cases, but only 40 faced prosecution.

This article draws on six cases spanning 2007–2010. The scope of cases was limited to Ontario, Canada. The choice in time period was deliberate as case data is hard to come by, and this period happens to include three of the largest, most prominent cases in recent years: Project Blackhawk, Project Fusion, and Project Corral. A total of 250 people were arrested in connections with these networks. However, given the large scale of these police raids, it is likely that not all of the actors are relevant to the gun-trafficking networks within the scope of this article. Instead, this article concentrates on 40 individuals who were convicted for their roles in gun trafficking. The majority of these individuals were prosecuted in court, although some may simply have been mentioned in the court records and were not prosecuted, providing a limitation on the data. The cases range from small-scale, with a handful of guns being brought across the border, to large trafficking operations run by powerful gangs. The cases were selected because they were proven examples of networks, with more than one node being demonstrated in the data, and also because they had substantial evidence surrounding them aiding the research process. Evidence was obtained through public sources in the form of news articles and police reports. The data are relatively robust since much of the data were proven in court and involves people

who were convicted. Nonetheless, there are instances where data are missing on some minor actors.

Chain Networks

Peddie Case. Ronald McKenzie, Roger Peddie, and Chantelle Batte were arrested June 5, 2007. Chantelle Batte, a single mother from Sarnia, Ontario, was introduced to Roger Peddie (who used the alias “Jerome”) in 2007. He offered her \$400 to travel to Atlanta with him to pick up a package that she believed to be marijuana. Batte dropped Peddie off at a friend’s house in Port Huron, Michigan, and then she crossed back over the border by herself. The two later met up, and Peddie took the package of firearms out of the car (Poisson & Bruser, 2013). A police investigation showed that Peddie was working with Ronald McKenzie of Oshawa, who was rumored to be bringing in guns from the United States “at a rate of 30 to 40 a month” (Poisson & Bruser, 2013). The network targeted in the Peddie case is depicted in Figure 1.

Sundal Case. The gun trafficking operation conducted by Jesse Sundal and Stephen Bobb in 2008 was also basic. Sundal, of Fort Atkinson, Wisconsin, was legally buying guns in the United States and removing their serial numbers. He then gave the guns to Bobb, a college dropout from Toronto who was offered \$2,000 to smuggle firearms across the border (Poisson & Bruser, 2013). Bobb crossed twice, but on the second attempt, he was pulled over by a Michigan state trooper for speeding. Bobb’s behavior seemed suspicious, and his vehicle was searched (Trevelan, 2008). A secret compartment in the gas tank revealed five vacuum packed packages, each with two handguns and two magazines inside. The guns were traced back to Sundal, who was already on the radar of both Canadian and American police after crime guns in Toronto had been linked to him (Poisson & Bruser, 2013). Their network is depicted in Figure 2.

Hub Networks

Project Blackhawk. Project Blackhawk led to the arrest of Ugur Yildiz and his collaborators and clients in 2008. Yildiz was a Turkish-born resident of Chicago who smuggled firearms over the border at Windsor in the spring of 2006 following the closure of his gun store due to repeated infractions (Thompson, 2009). He transported guns hidden in his minivan across the border during three separate trips (Powell, 2009). Daniel Wasiluk of Windsor let Yildiz house the guns in his storage unit once across the border. At first, Yildiz attempted to sell the weapons to Wasiluk, but they could not agree on a price (Windsor Star, 2008). Yildiz was then put in

contact with Huy Ta, a key figure in an Asian crime syndicate. Following a meeting in a strip club, Ta agreed to purchase the firearms from Yildiz, leading to Yildiz becoming Ta's supplier. (Powell, 2009). Ta's network is hard to map due to incomplete information, but it is assumed to be extensive since the guns that he obtained from Yildiz have been found across Ontario (Powell, 2009). It is known that he supplied guns to a wide range of criminals, including meth lab operator Velle Chanmany (Powell, 2013) and the Vongkosy family in Richmond Hill (Kyonka & Barmk, 2008). The network targeted in Project Blackhawk is depicted in Figure 3.

Coles Case. 2008 also saw the arrest of Terrence Coles, a community-college dropout from Detroit. Recognizing the money to be made from transborder gun trafficking, Coles had recruited four cash-strapped women to act as mules, as his prior gun and drug convictions meant it was unlikely that he could cross the border. One mule was identified by the media as Denisa Manga of Windsor, while two were cousins, and the last one was 8 months pregnant (Bruser & Poisson, 2013). Coles legally purchased firearms at Detroit gun shops and then paid the women to carry them over the border to Windsor, where they were sold to Toronto-based gangs. Coles soon attracted police attention, as he began to exchange the guns for large quantities of Ecstasy tablets, prompting an investigation. Between February and June of 2008, Coles sold 35 guns for \$36,000 to individuals who turned out to be undercover police in Windsor, resulting in his arrest (Bruser & Poisson, 2013). The Coles case network is depicted in Figure 4.

Project Fusion. Lisa Parmanand of Toronto led an operation that smuggled firearms obtained in Illinois and Georgia and sent them into Canada across the Queenston Bridge at the Niagara Falls border crossing (Poisson & Bruser, 2013). Parmanand had a criminal past, including an arrest in 2005 for firearms trafficking and drug possession. Upon conviction, Parmanand served 33 months in jail (Powell, 2009). Parmanand's trafficking network was supplied by numerous mules, including David Barrett, who had moved back to Toronto after dropping out of a Seventh Day Adventist University in Washington State (Poisson & Bruser, 2013). Parmanand also worked with the operator of a safe house located on Glennana Road in Pickering, which housed many of the guns before they were sold (CBC, 2012a). Her primary client was Hubert Green, who controlled the 400 Crew and MNE gangs in Toronto through his lieutenants, Queen "Guggz"

Hibbert and Floyd "Tall Man" Atkins (Pazzano, 2009). Green kept these gangs supplied with narcotics through a connection with Courtney Ottey, a key figure in the Jamaican Shower Posse (SP) gang who was importing cocaine from his gang associates in Kingston, Jamaica (Powell, 2011). The guns and narcotics being trafficked into Canada served different purposes for MNE and the 400 Crew, as the guns were intended to keep gang members and drug dealers armed, while the drugs were to be trafficked further and sold by drug dealers employed by MNE and the 400 Crew as a source of revenue. The network targeted in Project Fusion is depicted in Figure 5.

Multiplayer Networks

Project Corral. Project Corral resulted in the seizure of 73 kilos of cocaine, over 100,000 ecstasy tablets, 19 guns, and thousands of dollars in cash (Vallis, 2010). Courtney Ottey, a Jamaican born resident of Toronto, and his associates were at the center of an operation that supplied feuding Toronto gangs with firearms and narcotics. Ottey was running what could be described as a "franchise" of the Shower Posse, an international criminal organization based in Kingston, Jamaica under the leadership of Christopher Coke (Balkissoon, 2010). It is important to note that the SP has been described as operating more like a Fortune 500 company than a street gang (DiManno, 2010). The SP operated a trafficking ring that smuggled drugs into Toronto from mules based in Panama and the Dominican Republic (Vallis, 2010). This was exemplified by the case of Oliver Willis, David Parker, and Mauro Guiseppe, three Canadian citizens who were arrested in the Dominican Republic when 72 kilograms of cocaine meant for export to Canada were discovered in the bed of their pickup truck (Powell, 2010). Guns were imported to Toronto through networks ran by Derrick Smith (Balkissoon, 2010). The Toronto chapter consisted of around ten members, and, in typical SP fashion, none were involved in street-level crime (DiManno, 2010). Ottey acted as a guns and drugs wholesaler to the warring Five Point Generalz (5PGz, which he also controlled) and Falstaff Crips (Powell, 2010). Ottey was aided by Neigabe Stewart, who took over operations of the 5PGz while he was under house arrest for various drug trafficking offences (Pazzano, 2010). At the time of Project Corral, Ottey was out on bail, having been arrested on drug trafficking charges as part of Project Fusion a year earlier. The Toronto chapter was also supplied with drugs from the SP headquarters in Jamaica. It appears that in exchange for the narcotics, cash (profits from the drug trade) and guns originally trafficked from the United States were being sent

back to Jamaica as a form of tribute. Several key members of the Toronto SP, such as Courtney Ottey and Derrick Smith, used the SP network to remit money to family members in Jamaica, and Smith was even building a house there (Powell, 2010). Police wiretaps indicate that Ottey communicated with key members of the Jamaican SP's leadership, most notably Coke. Coke also had a sister who lived in the

Greater Toronto Area, who provided a place for him to stay when he visited Toronto to check on SP business (Baksh, 2012). Little information is available on Coke's sister, but her presence in Canada underscores the close ties between Toronto and the SP. The network run by the Toronto SP is depicted in Figure 6.

Figure 1: Peddie Case

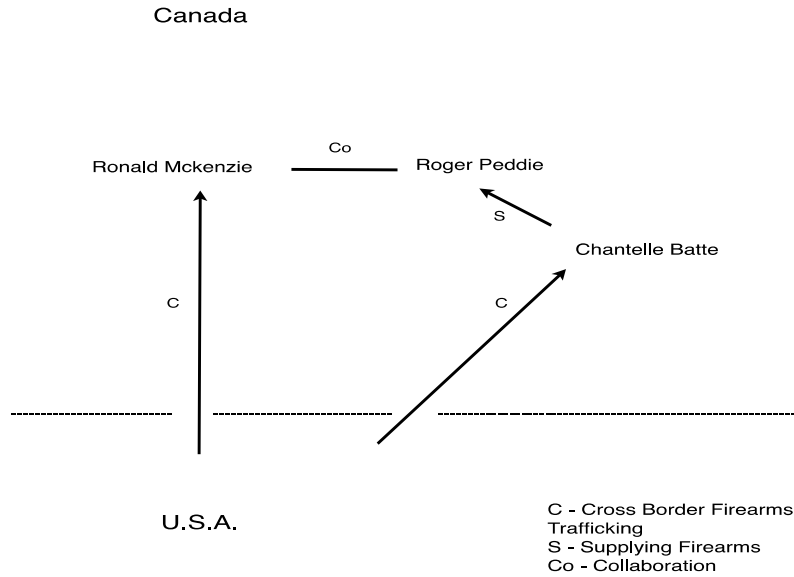


Figure 2: Sundal Case

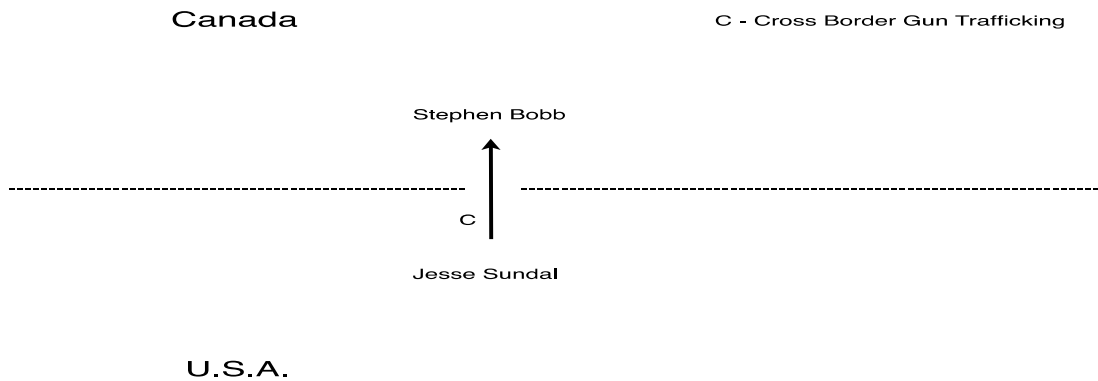


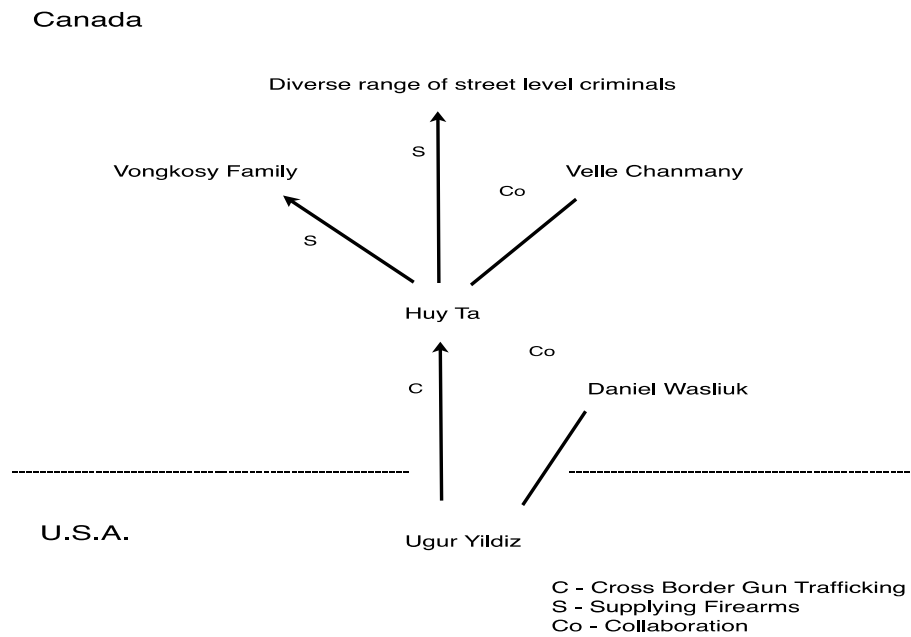
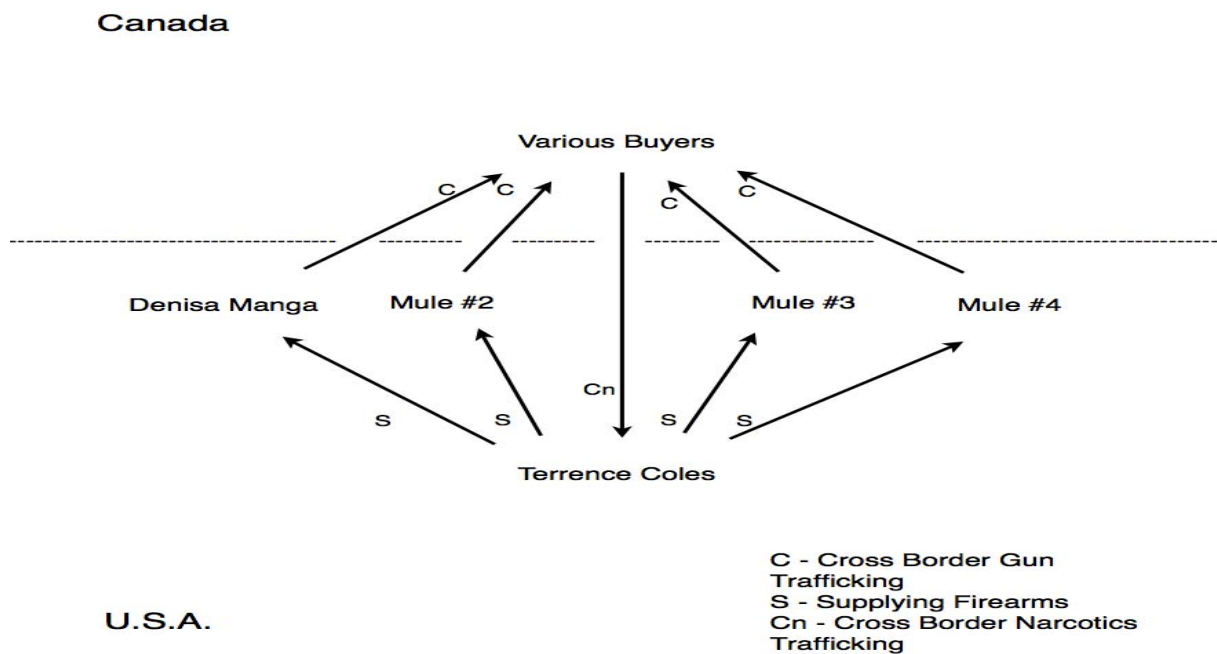
Figure 3: Project Blackhawk**Figure 4: Coles Case**

Figure 5: Project Fusion

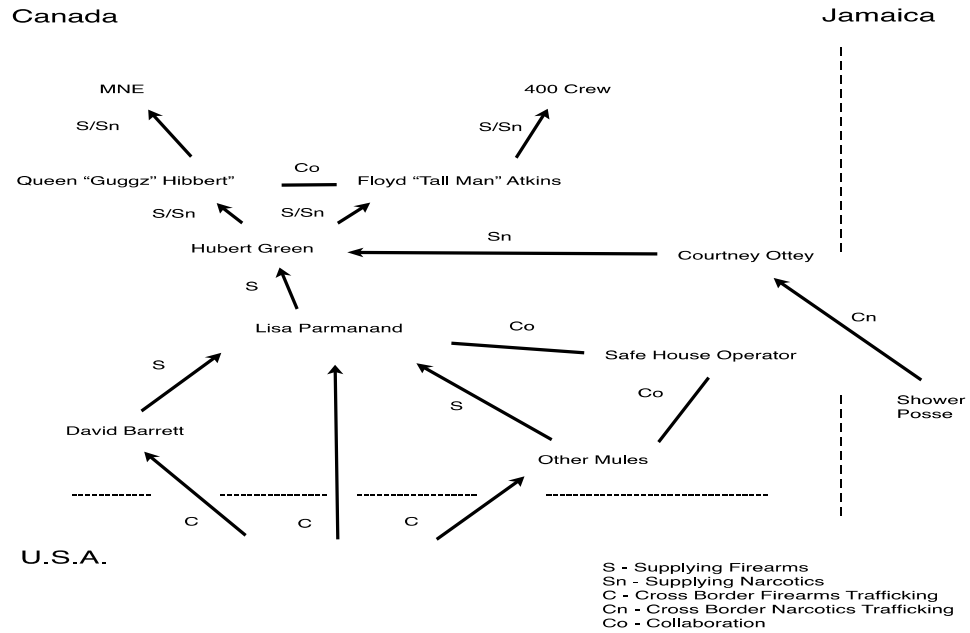
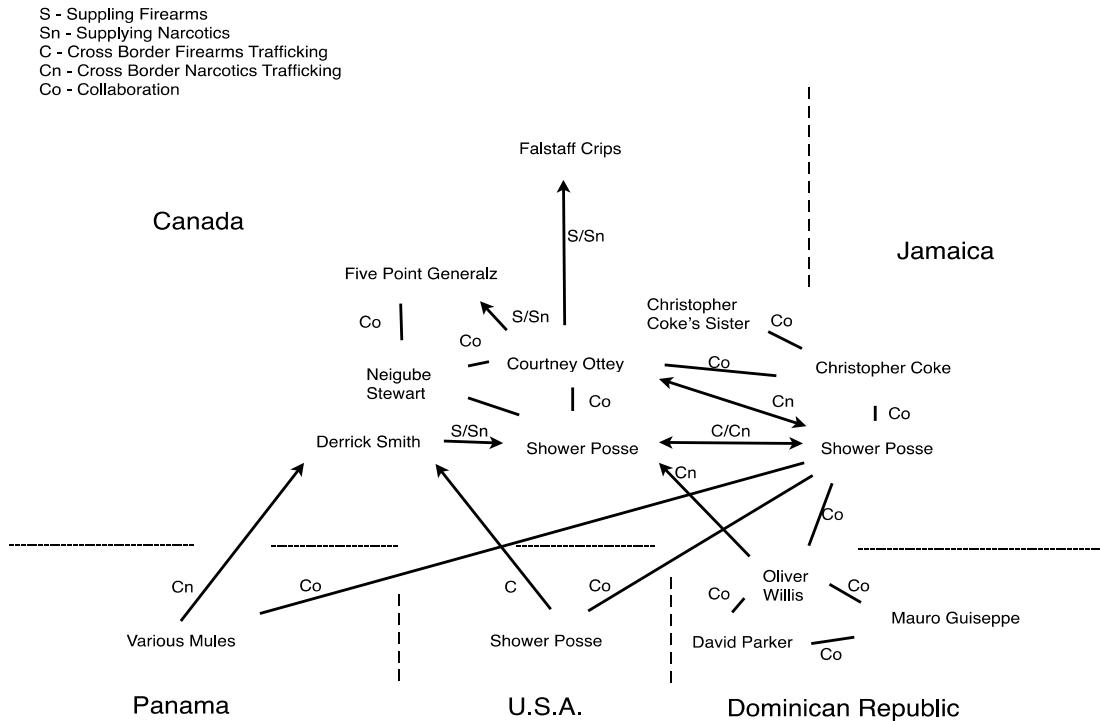


Figure 6: Project Corral



Findings

The findings show that several networks took the form of a simple chain network. In the Peddie Case, the network was unsophisticated and the number of actors limited. McKenzie was acting independently, and merely collaborated with Peddie, who was operating a basic chain network with Batte as the mule. Batte was targeted for recruitment as a mule due to her poor financial situation at the time. Peddie can be identified as the broker due to his command over information in the network, but the small scale of the network stymies his degree and betweenness centrality. The unsophisticated nature of the network meant it was simple for police to disrupt it. The Sundal case is the most basic form of chain network. Two actors collaborated, and neither one had significantly more influence or access to information or resources than the other. The simple nature of the network also made it easy to disrupt.

Other cases took the form of hub networks. In Project Blackhawk, Ta acted as a broker with high betweenness centrality, connecting Yildiz, the gun seller, and the various buyers. However, considering his wide-ranging connections, he also possessed a high degree centrality, meaning that he was not an ideal broker. The arrest of Ta and Yildiz ensured that this gun trafficking network was cut off, as the main supplier and the main broker were both incarcerated. The Coles Case was another basic hub network, entirely masterminded by Coles, the best connected actor, and his brokerage kept the operation running. Coles acted as a basic broker, controlled the flow of the guns in the network, and connected his mules with buyers across the border.

The network targeted in Project Fusion was a hub network, as almost all the nodes were connected to Green or Parmanand. Parmanand was the seller, Green was the buyer, and neither would have had much contact with the other's network, so they bridged a key structural gap. They also controlled the flow of information in the network. Mules, such as Barrett, did not have access to much information. There is no evidence to suggest that Barrett was aware of where the guns were destined once he had delivered them to Parmanand, and it does not appear that he ever came in contact with Green or his network. Instead, Barrett simply fulfilled his functions in the network, remaining on the periphery. Ottey does not seem to have had a particularly close connection to the network. While he connected with Green, his link seems to be weaker than Parmanand's. In addition to the financial incentive for doing business, Ottey and Green shared a Jamaican background. Ethnic capital may thus be a factor in their collaboration. Given Parmanand and

Green's high degree centrality and high betweenness centrality, they were not ideal brokers—their arrests dealt a crippling blow to the trafficking network. Conversely, Ottey remained a key figure in the SP until his arrest as part of Project Corral in 2010 (Powell, 2011).

The network taken down by Project Corral differs from other cases because of different command, control, and communication structures: SP USA was supplying SP Toronto, but SP USA and SP Canada were otherwise unconnected as communication was relayed through SP headquarters in Jamaica. The SP did not just traffic but also commodified guns. Besides keeping the Toronto SP and its affiliated gangs armed, guns were being sent to Jamaica. Canada is not the only country where guns are considered a valuable commodity among criminals, and traffic in guns from the US to Canada enables global diffusion from Canada. The SP's international drug trafficking network saw narcotics shipped from Jamaica, Panama, and the Dominican Republic to an enormous market of buyers in the United States, Canada, and Great Britain. The network was tightly organized, and calculated decisions were made to ensure that SP influence was maintained. During Jamaican elections, international drug prices would spike, as the SP fundraised for their chosen political candidates (Halfnight, 2010).

The focus on the drug trafficking probably resulted in the network taking on a much more complicated structure than the gun-focused trafficking networks. From the available information, it appears that the Toronto SP trafficked drugs using a multi-player network with numerous well-connected and influential nodes. Their gun trafficking network, by contrast, was relatively simple: a hub network, with Derrick Smith as the broker, ferrying guns across the border using his system of mules. With his high betweenness centrality, Smith bridged the US and Canadian branches. It is harder to determine the extent of Smith's degree centrality, as less is known about his mule network, but his place within the Toronto SP and Jamaican connections indicate that he was hardly an ideal broker.

Cross-border gun trafficking networks are tactical and indicative of strategic behavior, as they are driven by the pursuit of profit. At a markup of 1000%, the operation yields enough profit for suppliers and their mules. Although the data in these six particular cases are insufficient to code the profit variable conclusively, there is circumstantial evidence to support it. When Yildiz was forced to shut down his gun store in Chicago, he resorted to making money by selling his cache of weapons to Ta. Mules, such as Batte or Barrett, were in difficult

financial situations and were lured into gun trafficking through the promise of quick, easy money. In contrast to the profit-motive of chain networks, organized crime groups obtain most of their profit through drug trafficking. Their main priority when it comes to guns is the security of their organization. MNE, the 400 Crew, the Falstaff Crips, and the SPGz were all looking to arm their men to protect their interests and revenue stream. Guns allowed gangs to defend themselves against rivals and to intimidate opponents. This, combined with their scarcity in Canada, is what made guns such a valuable commodity among street gangs.

In several cases, guns were traded for drugs: Coles was exchanging guns from Michigan for Canadian Ecstasy, Ta was keeping Chanmany armed in exchange for crystal meth, and the Toronto SP sent tribute weapons back to headquarters in Jamaica as partial payment in exchange for the drugs they supplied. This confirms the value of guns as a commodity among criminal groups and also suggests the existence of a criminal exchange system based on bartering illicit goods rather than currency. This may help make their activity harder to trace, as it removes the paper trail that money creates. In some cases, it also demonstrates the further trafficking and diffusion of guns once they cross the Canadian border, helping to explain why they can be so hard to track.

Discussion

The first hypothesis is that cross-border gun trafficking networks take the form of simple chain networks or slightly more advanced hub networks. Given the availability of legal guns in the United States, it is understandable why chain networks are so

prevalent: cross-border trafficking is as simple as a crossing the border. Chain networks also appear to be easy to disrupt. Simply removing one actor breaks the chain. Table 1 (*supra*) shows the different combinations of betweenness and degree centrality that a network can have. Tables 2 and 3 then place the actors in the various networks within this centrality matrix. Table 2 shows that the actors in chain networks are relatively equal in terms of centrality. This results in an equal flow of information and resources through the sequential actors in a chain network; consequently, when one actor is compromised, so are the others. This explains why there are so few examples of members comprising chain cross-border gun trafficking networks escaping arrest when their ring is discovered and disbanded by law enforcement.

Hub networks seem to have greater capacity. Table 3 indicates a sizable range in degree and betweenness centrality between the various actors in hub networks. Mules tend to be low in both centralities, coordinated by a broker who bridges the gap between the supply of guns being delivered by the mules and the buyer who often takes the form of an organized crime syndicate. The bridge provided by these brokers establishes them as the crux of the network, shown in Table 2 as high betweenness centrality. Without their presence, the supply of guns can be easily cut off. The various gun trafficking networks observed in this article met their ends as brokers were compromised and arrested. While targeting brokers appears to be an effective way of disrupting the cross-border gun-trafficking networks that take the form of hub networks, the more challenging task is to ensure that more brokers do not take their place and more networks spring up to fill the void.

Table 2: Chain network structure and centrality scores

Network Name	Nature of Network	Actors	Role	Centrality
Peddie Case	Transborder Trafficking	Roger Peddie	Broker	All actors had relatively equal degree and betweenness centrality
		Ronald McKenzie	Independent Actor	
		Chantelle Batte	Mule	
Sundal Case	Transborder Trafficking	Jesse Sundal	Equal Partner	Actors had equal degree and betweenness centrality
		Stephen Bobb	Equal Partner	

Table 3: Hub network structure and centrality scores

Name	Nature of Network	Actors	Roles	Centrality
Project Blackhawk	Transborder Gun Trafficking with connections to the domestic drug trade	Ugur Yildiz	Gun Supplier	High degree and low betweenness
		Huy Ta	Broker	High degree and betweenness (broker)
		Daniel Wasiluk	Collaborator	Low in both centralities
		Velle Chanmany	Gun Buyer	Low in both centralities
		Vongkosal Family	Gun Buyer	Low in both centralities
		Diverse range of street level criminals	Gun Buyer	Unknown, but likely low in both centralities
Coles Case	Transborder Gun Trafficking with connections to the transborder drug trade	Terrence Coles	Broker	High degree and betweenness (broker)
		Denisa Manga	Mule	Low in both centralities
		Mule #2	Mule	Low in both centralities
		Mule #3	Mule	Low in both centralities
		Mule #4	Mule	Low in both centralities
Project Fusion	Transborder Gun Trafficking with connections to the international drug trade	Lisa Parmanand	Broker	High degree and betweenness (broker)
		Hubert Green	Broker	High degree and betweenness (broker)
		Courtney Ottey	Drug Supplier	Low degree and high betweenness (ideal broker)
		Queen “Guggz” Hibbert	Green’s Lieutenant	High degree centrality and low betweenness centrality
		Floyd “Tall Man” Atkins	Green’s Lieutenant	High degree centrality and low betweenness centrality
		Safe House Operator	Collaborator	Low in both centralities
		David Barrett	Mule	Low in both centralities
		Other Mules	Mule	Low in both centralities
Project Corral	Transborder Gun Trafficking and International Drug Trafficking	Courtney Ottey	Broker	High degree and betweenness (broker)
		Derrick Smith	Broker	High degree and betweenness (broker)
		Neigabe Stewart	Ottey’s Lieutenant	High degree centrality and low betweenness centrality
		Christopher Coke	Head of Showerhead Posse	Low in both centralities (likely a broker in his own network though)
		Christopher Coke’s sister	Collaborator	Low in both centralities
		Oliver Willis	Broker	High degree and betweenness (broker in his Dominican trafficking operation)
		David Parker	Mule	Low in both centralities
		Mauro Guiseppe	Mule	Low in both centralities
		Various Mules	Mule	Low in both centralities

The second hypothesis is that transborder gun trafficking networks take simpler forms than transborder drug trafficking networks, as manifested in different network structure. For both kinds of networks, the actual cross-border piece is analogous: a number of parallel border-crossers and a single collector node on the other side. That there is only one collector node is likely a function of trust: If mules had more than one person to whom they report, it would become easy to cross the border and go into business for themselves. It is surprising that collectors do not set up cut-outs between themselves and the arriving mules. That would make them much harder to detect.

There are two differences between the two kinds of networks. The first arises from the ease of obtaining the commodity. Since guns are readily available, no structure is needed to handle acquisition. In contrast, obtaining drugs requires access to a global pipeline, a more sophisticated and extensive acquisition process, and a network to support it. The second difference is related to the objects being transported. On one hand, profit per gun is large, and the collectors do not bother to establish distribution networks. This is their Achilles heel: They get ratted out by those to whom they sell. On the other hand, drugs are sold in much smaller quantities, forcing collectors to build and work through distribution networks, which protect them from being ratted out because they are further from the people who get arrested. In Project Corral, drug trafficking took the form of a complicated multi-player network, with numerous influential actors, as shown in Table 1 by the large number of actors who are high in both centralities. The gun trafficking network that was being operated by the same organization was different. Despite the capacity that the SP had to run a complex network, their transborder gun trafficking network was unsophisticated. The network hinged on only one or two key brokers to maintain a steady flow of weapons across the border.

The demographic attributes summarized in Table 4 indicate that actors are 75% male and 70% were 30 or younger when they committed these crimes, although this trend bifurcates for mules and brokers. Whereas mules tend to be younger (20–25) and female, brokers are more likely to be older (in their 30s) and male. Certain demographics appear disproportionately vulnerable to recruitment. The nodes in these cases suggest that men dominate transborder gun trafficking: 23 subjects were male, and 7 were female. Only one woman, Lisa Parmanand, acted as a broker; all other women were mules, or, as in the case of Christopher Coke's sister, peripheral to the network. If Parmanand is treated as

an outlier, it appears that women involved in transborder gun trafficking tend to have low degree and betweenness centrality. While information about the mules in these networks is limited, five of the known mules were female, and four were male. Women appear less likely to be brokers but not necessarily more likely to be mules. The limitations of the data concerning transborder gun trafficking networks notwithstanding, it appears that men are more likely than women to have higher degree and betweenness centrality. The majority of subjects involved were Canadian: among 31 subjects, 18 were Canadian, 6 were American, and 7 were Jamaican, and the disproportionate number of Jamaicans is likely unrepresentative, a function of the influential role played by the Shower Posse gang, particularly in the case of Project Corral. This influential role is likely demonstrated by the fact that none of the Jamaicans who participated in a network did so as mules, whereas Canadians and Americans were equally represented as both brokers and mules.

In Table 2, dates of birth of the known actors involved in transborder gun trafficking in these six cases reveals that—in line with the broader literature on criminal deviance—most actors were in the 20s or early 30s when they participated in gun trafficking. The median year of birth is 1980. Mules, however, were younger than the brokers for whom they were working. Their youth may have rendered them more vulnerable, both to being drawn into the underworld of gun trafficking in the first place and to being influenced more by brokers.

From Tables 1 and 2, preliminary conclusions about the relatively simple nature of gun trafficking networks follow. They do not require a complex operation south of the border. Instead, Canadians just cross into the United States, purchase firearms, and then return to Canada. With respect to gun trafficking networks, the transaction costs imposed by the border appear low compared to the vast markets of opportunity it creates. The prerequisites are a ready supply of guns south of the border and someone who is willing to purchase guns legally in the United States and then bring them across the border. Single cases of gun trafficking, or simply individuals who do not require a larger network to profit from gun trafficking, are thus quite possible. The ease with which individuals can cross and the large supply of legal guns in the United States seems to allow for the proliferation of many small, unsophisticated gun trafficking networks. That explains why even gun trafficking networks with significant organized crime connections do not appear to differ substantially from those operated by a handful of individuals.

Limitations are imposed on a more in-depth analysis because important nodes are sometimes placeholders for entire groups; it might matter how those groups connect internally. For example, is

there one person in the Jamaican SP who "handles" Canada, or this a shared responsibility? The same problem arises with the SP node in Canada in Figure 6.

Table 4: Demographic attributes of nodes

Cases	Actors	Gender	Country of Origin	Country of Residence	Age at the time of the case	Role
Peddie Case	Roger Peddie	M	Canada	Canada	Unknown	Broker
	Ronald McKenzie	M	Canada	Canada	Unknown	Independent Actor
	Chantelle Batte	F	Canada	Canada	28	Mule
Sundal Case	Jesse Sundal	M	U.S.A.	U.S.A.	30	Equal Partner
	Stephen Bobb	M	Canada	Canada	20	Equal Partner
Project Blackhawk	Ugur Yildiz	M	Turkey	U.S.A	38	Gun Seller
	Huy Ta	M	Canada	Canada	Unknown	Broker
	Daniel Wasiluk	M	Canada	Canada	31	Collaborator
	Velle Chanmany	M	Canada	Canada	27	Gun Buyer
	Vongkosy Family	N/A	Canada	Canada	N/A	Gun Buyers
	Diverse range of street level criminals	N/A	Canada	Canada	N/A	Gun Buyers
Coles Case	Terrence Coles	M	U.S.A.	U.S.A.	23	Broker
	Denisa Manga	F	Canada	Canada	20	Mule
	Mule #2	F	U.S.A.	U.S.A.	Unknown	Mule
	Mule #3	F	U.S.A.	U.S.A	Unknown	Mule
	Mule #4	F	U.S.A.	U.S.A	Unknown	Mule
Project Fusion	Lisa Parmanand	F	Canada	Canada	29	Broker
	Hubert Green	M	Jamaica	Canada	37	Broker
	Courtney Ottey	M	Jamaica	Canada	32	Drug Supplier
	Queen "Guggz" Hibbert	M	Canada	Canada	25	Green's Lieutenant
	Floyd "Tall Man" Atkins	M	Canada	Canada	27	Green's Lieutenant
	Safe House Operator	M	Canada	Canada	Unknown	Collaborator
	David Barrett	M	Canada	Canada	22	Mule
	Other Mules	N/A	N/A	N/A	N/A	Mule
	Courtney Ottey	M	Jamaica	Canada	33	Broker
Project Corral	Derrick Smith	M	Jamaica	Canada	Unknown	Broker
	Neigabe Stewart	M	Jamaica	Canada	27	Ottey's Lieutenant
	Christopher Coke	M	Jamaica	Jamaica	41	Head of Showerhead Posse
	Christopher Coke's sister	F	Jamaica	Canada	Unknown	Collaborator
	Oliver Willis	M	Canada	Canada	30	Broker
	David Parker	M	Canada	Canada	Unknown	Mule
	Mauro Guiseppe	M	Canada	Canada	Unknown	Mule
	Various Mules	N/A	N/A	N/A	N/A	Mule

Policy Implications and Conclusion

Lösch (1954) and Helliwell (1998, 2002) posit that borders affect transaction costs. Although it may not be illegal to purchase a gun in the US, altering a car's fuel tank to put in a hidden compartment, for instance, is surely a vulnerability whose cost has a deterrent effect. If the border imposed high marginal costs on trafficked goods, we would expect to see complex networks. This appears to be the case for drugs, but less so for guns: Trafficking in drugs requires volume to turn a profit; trafficking in guns does not. Ergo, policy differentials across borders, and the markets of opportunity they create, matter: A commodity that is legal on one side of the border but not the other is subject to trafficking for direct or indirect gain by means of relatively simple chain or hub networks. Complex multi-player networks appear necessary, by contrast, when a good is illegal on either side of the border and profit is a function of volume.

Mapping the structure of gun trafficking networks is imperative to understanding how best to target and disrupt these networks. It is simple to compromise the actors in a chain network, and if a broker can then be located in a hub network, he or she can be targeted, and the whole network will be disrupted. This is especially true of brokers who traffic guns since they have a high degree centrality to match their high betweenness centrality; that is, while they bridge important structural gaps in networks, they are widely known throughout the network, as they are the key contact for the other actors. This means that few gun traffickers are ideal brokers precisely because they are subject to being identified by so many other members of the network, which makes them an easy target for identification by law enforcement. The unsophisticated nature of these networks also helps to explain why they are plentiful: Provided that one knows how to tap into the market, they are simple to set up and simple to operate. For this reason, the real challenge of understanding cross-border trafficking networks is not how to target brokers and the networks they connect, but how to discourage people from becoming brokers and enabling networks to regenerate. For this reason, the Intelligence-Lead Policing (ILP) model focuses on disrupting and dismantling networks by concentrating scarce resources on brokers in the form of dynamic network analysis and target selection.

The nature of the border and ready supply of guns in the United States is unlikely to change. Considering that it is difficult to have influence over the supply of guns, and there is a strong incentive for simple networks trafficking guns to regenerate to fill

a void in a highly profitable market, depressing demand is the default strategy in combating cross-border gun trafficking networks. This can be done by working with at-risk communities and through deterrence. However, even in at-risk communities, relatively few individuals actually obtain a gun. As a result, criminal intelligence in support of law enforcement is probably the most efficient way to have a strong deterrent effect. There is no need to target the network at large—concentrating scarce resources on brokers will yield maximum payoff, as long as the gun network collectors do not set up distribution. This decreases vulnerability since the effort involved in setting up distribution is discouraged by the sheer availability of guns across the border.

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Desistance from Criminal Offending: Exploring Gender Similarities and Differences

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ABSTRACT AND ARTICLE INFORMATION

Over the past several decades, researchers have more fervently examined female offending. The criminal career research paradigm put forth by Blumstein and colleagues in 1986 offers an opportunity for researchers to examine offending, including female offending, from multiple perspectives including onset, persistence, and desistance from a multitude of theoretical traditions. Using data from the National Youth Survey, this investigation examined the similarities and/or differences between female and male discrete offender groups (desisters, persisters, late onsetters, and conformers) and theoretical predictors of desistance and persistence from less serious crimes. Results of the research revealed significant gender differences between the discrete offender groups as well as similarities and differences between the genders in predictors of desistance and persistence for less serious crimes. Implications of the results are discussed.

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Developmental, or life course, criminology emerged in the 1980s and has fundamentally changed how researchers today view offending patterns. No longer satisfied with single factor explanations for criminal involvement, such as strain or delinquent peer associations, developmental criminologists of this time began to push the boundaries in the discipline and sought to examine several risk factors, in tandem from a multitude of disciplines (e.g., psychology, sociology, biology), for offending patterns (Loeber & Le Blanc, 1990). Developmental

criminologists sought to understand how such risk factors exhibit and influence offending patterns over a criminal career while noting that there are various dimensions of offending (e.g., onset, persistence, or desistance; Blumstein, Cohen, Roth, & Visher, 1986). Ultimately, criminal behavior is not just to be understood in the context of onset but rather in facets of a criminal career such as desistance-or breaking away from criminal offending. Moreover, unlike many historical criminological theories that primarily offered explanations for male offending patterns

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(e.g., Cohen, 1955; Hirschi, 1969), developmental theories outlined explanations for both genders (e.g., Moffitt, 1993; Patterson & Yoerger, 1993).

In 1986, Blumstein and colleagues stressed that desistance was not only a crucial aspect of developmental criminology to examine when studying the life course of deviant individuals, but also a significant research area to explore empirically. After this proclamation, patterns of desistance from criminal offending were, at first, largely ignored in criminological research. Since the 1990s, empirical research on desistance has emerged with an even larger amount of research occupying the 2000s. Initially, research that had been conducted on desistance from criminality consisted of examining desistance for males (Loeber, Stouthamer-Loeber, Van Kammen, & Farrington, 1991; Ouimet & Le Blanc, 1996; Shover & Thompson, 1992). However, research soon began to emerge on female desistance patterns as well (Brown & Ross, 2010; Craig & Foster, 2013; Doherty & Ensminger, 2013; Giordano, Cernkovich, & Rudolph, 2002; McIvor, Trotter, & Sheehan, 2009; Sommers, Baskin, & Fagan, 1994; Uggen & Kruttschnitt, 1998; Varriale, 2008).

Despite the proliferation of research on desistance, researchers have yet to examine the similarities and/or differences between discrete groups of offender groups (e.g., desisters, persisters, late onseters, and conformers) and gender using longitudinal data. Gunnison and Mazerolle (2007), for example, examine discrete groups of offenders in their research, but they fail to further investigate how various risk factors distinguish the groups by gender. Additionally, researchers have not examined both females and males longitudinally to determine if factors predicting desistance from less serious criminality are similar and/or different between the genders. The importance of better understanding desistance for female offenders cannot be overstated since some researchers have reported that females desist from crime at a higher rate than males (Weiner, 1989). Thus, understanding the reasons why this may occur can help guide policymakers as to how best to serve both female and male offending populations to ultimately foster desistance. Therefore, using data from the National Youth Survey, this investigation advances previous research by examining female and male discrete offending groups as well as desistance patterns from general delinquency, or less serious crimes.

Theoretical Explanations and Empirical Support for Desistance

Uggen and Piliavin (1998) assert that “criminologists devote relatively little attention to

deriving theoretical understanding of the desistance process. This is because criminological theory and research are primarily concerned with questions of etiology, or the causes of crime” (p. 1400). Few criminologists have developed a comprehensive criminological theory to explain desistance, and some theorists have either merely alluded to its precursors within their own theoretical framework or have provided explanations for it. Additionally, researchers have begun to explore the desistance dimension of criminal offending. The following sections provide theoretical explanations and empirical support for desistance as it relates not only to the theory, but also to gender.

Social Control Theories

Several social control theories have offered explanations for desistance. While some scholars have pointed to age, or a latent trait, as being responsible for desistance from crime, other criminologists have suggested that social variables can better explain desistance patterns (Gottfredson & Hirschi, 1990; Hirschi, 1969; Hirschi & Gottfredson, 1983; Sampson & Laub, 1993). Although Gottfredson and Hirschi (1990) claim in their general theory of crime that desistance can only be explained by age, empirical support for this relationship has been mixed (Pezzin 1995; Shover & Thompson, 1992; Sweeten, Piquero, & Steinberg, 2013). On the other hand, strong empirical support has been found for Sampson and Laub’s (1993) age-graded theory which proposed that strong, salient bonds (e.g., marriage, employment) promote desistance from criminality. Numerous researchers have found empirical support for social bonds (e.g., marriage, employment, parental attachment) promoting desistance from criminality (Farrington & West, 1995; Giordano, Seffrin, Manning, & Longmore, 2011; Horney, Osgood, & Marshall, 1995; Laub, Nagin, & Sampson, 1998; Meisenhelder, 1977; Rand, 1987; Sampson & Laub, 1993; Schroeder, Giordano, & Cernkovich, 2010). For example, Sampson and Laub (1993) found that a strong marriage caused many delinquents to break from their criminal ways while Horney and colleagues (1995) found that offenders who resided with their wives were more likely to quit offending. Other researchers have found support for marriage promoting desistance from crime and alcohol and drug use (Farrington & West, 1995; Fillmore et al., 1991; Labouvie, 1996; Laub et al., 1998; Leonard & Homish, 2005; Mischkowitz, 1994; Ragan & Beaver, 2010; Sampson & Laub, 1990; Temple et al., 1991; Thompson & Petrovic, 2009; Warr, 1998) while more recently, some researchers have also found that

strong parental attachment with a child may promote desistance (Schroeder et al., 2010).

Empirical exploration into whether marriage promotes desistance for female offenders has been emerging (Bersani, Laub, & Nieubeerta, 2009; Doherty & Ensminger, 2013; Giordano, et al., 2002). For example, Giordano and colleagues (2002) analyzed both quantitative and qualitative data of 93 adolescent males and 104 adolescent females from Toledo, Ohio. The researchers found, contrary to Sampson and Laub's (1993) research, that marital attachment was not related to male or female desistance. However, the narrative reviews of desistance factors conducted by the researchers elucidated several key areas of similarity and difference in desistance patterns for males and females. In their narrative analysis, Giordano et al. (2002) discovered that for a subset of women and men, marriage could promote desistance. That is, marriage partners were perceived as being a "catalyst" for breaking from previous offending patterns. Doherty & Ensminger (2013), examined the impact of marriage on male and female African-Americans yet did not find a strong marriage effect on desistance for females.

Additional research on social bonds promoting desistance has found that employment and even military service can promote desistance for males and females (Craig & Foster, 2013; Horney et al., 1995; Opsal, 2012; Rand, 1987; Sampson & Laub, 1993, 1996). Craig and Foster (2013), in a longitudinal study of youth transitioning to adulthood, found that military enlistment was related to desistance for females but not for males.

Deterrence/Rational Choice Theories

Some scholars have attributed desistance from crime to the individual making a rational decision to quit (Cornish & Clarke, 1986). Empirical support for the deterrence/rational choice perspective on desistance has been mixed. Additionally, desistance research from this theoretical perspective has focused on retrospective and/or qualitative studies, usually conducted on small, unrepresentative samples of male offenders (Esbensen & Elliott, 1994). For example, several researchers have found that male offenders are likely to desist from criminal offending patterns due to fear of imprisonment or the realization that crime was counterproductive to their lives (Cusson & Pinsonneault, 1986; Shover, 1996). In one such quantitative piece, Shover and Thompson (1992) examined desistance from criminality using follow-up data on 948 males who were incarcerated 3 years prior to the analysis. Specifically, the researchers examined whether age had an indirect impact on desistance through one's assessment of the

risks and rewards of criminal continuation. The researchers found that offenders who possessed a low expectation for success in continuing in crimes were more likely to desist.

The exploration into female desistance patterns has uncovered that females who perceive consequences for their criminal behavior(s) are also more likely to desist. In a qualitative study, Sommers and colleagues (1994) examined 30 women via interviews and self-reports. In their study, some females desisted from crime by merely realizing that the deviant way of life they were leading was problematic, while others reached a point in their life where they decided change was necessary and conventional life activities needed to be re-discovered. Of particular interest is the fact that many women in the sample viewed their age as a factor in their desistance pattern. That is, these women feared a longer prison sentence if they were caught again for engaging in criminal activity. In a quantitative piece that examined males and females, Pezzin (1995), who analyzed data from the Youth Cohort of the National Longitudinal Survey, investigated the decision to terminate involvement in criminal activities. The researcher found that sanction costs were a significant predictor of desistance. Specifically, she noted that individuals who possessed high legal earnings, or high legitimate income, were most likely to break from previous offending patterns. Therefore, from what little research that has been conducted on examining the relationship between deterrence/rational choice theory and desistance, it appears that males and females describe similar explanations for desisting from a life of crime.

Differential Association/Social Learning Theories

Criminologists have attributed criminal involvement to the learning of criminal definitions and associations with delinquent peers (Akers, 1990; Sutherland, 1947). Therefore, it is expected that exposure to pro-social beliefs and associations with pro-social peers will influence desistance from criminality. In fact, research into drug cessation has revealed that breaking away from anti-social peers strongly influenced desistance from drug use (Lanza-Kaduce, Akers, Krohn, & Radosevich, 1984; White & Bates, 1995).

Other empirical research outside the realm of drug research has yielded support for differential association/social learning theory and its role in explaining desistance from crime. In a longitudinal study of 297 males and 269 females, Ayers and colleagues (1999) found that for both males and females, involvement with more conventional peers predicted desistance from criminality. Upon

analyzing data on males collected from the National Youth Survey, Warr (1993) found that peer associations in his sample changed as the subjects aged. He discovered that as subjects grew older, their delinquent peer associations decreased and that, in turn, resulted in decreases in criminal involvement patterns. Drawing on Sutherland's differential association theory, Warr (1998) investigated whether links between major life course transitions and desistance from crime are attributable to changing relations (e.g., less time spent with certain deviant friends or making new prosocial friends) with peers. In this analysis, again using the National Youth Survey, Warr (1998) found that the transition to marriage tends to disrupt or dissolve relations with friends, including delinquent friends. This research lends support to not only differential association/social learning theory, but it also indicates support for the role of social bonds in desistance as outlined by Sampson and Laub (1993). More recently, Sweeten et al. (2013) found that criminal gang disengagement was related to a reduction in antisocial peer associations.

General Strain Theory

A final theory that contributes to the understanding of desistance is general strain theory as proposed by Agnew (1992). General strain theory proposes that when individuals experience strain, they are at an increased risk of experiencing negative emotions, particularly anger. Specifically, when an adolescent becomes angry, his/her inhibitions against committing crime are lowered resulting in an increased likelihood of committing a criminal act because he/she may not possess pro-social coping strategies to handle the anger. Several researchers have found empirical support for strain causing onset into delinquency patterns (Agnew & White, 1992; Paternoster & Mazerolle, 1994). Currently, the research into whether reductions in strain promote desistance has not been empirically explored.

While researchers have not explored whether reductions in strain promote desistance, several researchers have examined gender differences in types of strain and reactions to strain in order to understand the gender gap in criminal behavior (Broidy & Agnew, 1997; Mazerolle, 1998). Broidy and Agnew (1997) explored whether general strain theory is applicable to males and females, and they concluded that the theory explains both male and female offending. However, the researchers noted that males and females experience different types of strain and react differently to these straining influences. In a longitudinal analysis using data from the first two waves of the National Youth Survey, Mazerolle (1998) found evidence of gender

differences in the effects of strain on violent offending patterns. For example, Mazerolle (1998) noted that exposure to multifarious negative life events (e.g., the death of a loved one) and negative relations with adults are criminogenic for males but not for females. Therefore, this study can offer a perspective into how well general strain theory informs desistance research and whether strain related processes differ between male and females in predicting desistance.

Other Desistance Factors

Males. Shover and Thompson (1992) found that age predicted desistance, but other factors such as expectations of success from crime and level of education were also found to be significant predictors of desistance. Several other variables have been found to be correlated with desistance. For example, Loeber et al. (1991), using the Pittsburgh Youth study comprised of a sample of 850 male adolescents, found that low social withdrawal, low disruptive behavior, and positive motivational and attitudinal factors were associated with the desistance in offending for this group.

Another factor related to desistance that has not been explored is whether fathers are more likely to desist upon becoming a parent. In a qualitative study of 20 African-American and Latino-American young men, Hughes (1998) suggests that parenthood may be a motivating factor towards desistance. Rutter (1994) also adds that little is known about the effects that teenage fatherhood has on males' life trajectories. However, in the examination of 106 male offenders in a follow-up analysis of the 1945 Philadelphia birth cohort males, Rand (1987) found no significant effect of fatherhood on desistance.

Females. Empirical research on female desistance is historically sparse. Much of the research on female desistance has centered on the use of qualitative data rather than longitudinal quantitative data. Therefore, understanding the desistance patterns for females is even more opaque.

Transitions: Pregnancy and Parenthood.

Becoming pregnant or parenthood has emerged in the drug literature as promoting desistance from drug use for female offenders (Yamaguchi & Kandel, 1985). Chen and Kandel (1998) examined 706 male and female marijuana users in high school and then again at age 34-35. The researchers explored cessation from marijuana use and found that becoming pregnant and then becoming a parent were the most important factors leading to cessation of marijuana use for women. While Chen and Kandel (1998) were not examining the link between motherhood and

criminality, their study is a stepping stone into the exploration of such a link. Research has been emerging on the possible link between motherhood and desistance from criminal offending patterns. For example, Giordano et al.'s (2002) research does not support this factor as promoting desistance. Upon reviewing studies of teenage pregnancy, Rutter (1994) cautions that overwhelming research has indicated that becoming pregnant during the teenage years has a negative impact on the female's trajectory. However, upon conducting life history interviews with 11 females, Graham and Bowling (1995) discovered that for female offenders, having children exerted the greatest influence on their desistance. More recently, Giordano and colleagues (2011) found that females who became pregnant and wanted to be pregnant may desist from criminal behavior patterns. Parental attachments to children may also contribute to female desistance (Michalsen, 2011).

Additional Desistance Factors: In addition to the factors noted above, researchers have also found other variables that are associated with desistance. One of the few non-qualitative studies that examines female desistance was published by Uggen and Kruttschnitt (1998). Uggen and Kruttschnitt (1998) examined self-reports from a sample of males and females over a three year time period and found very little evidence that unique factors predicted desistance from deviant behavior(s) for males and females. However, when the researchers re-analyzed the group with official data, they found some evidence for gender effects. For example, drug use and prior criminal history increased the risks of arrests for women more than twice as much than for men. Thus, females with prior criminal records and histories of drug use may be less likely to desist. Similarly, Born, Chevalier, and Humblet (1997), using data from the Public Institutions for the Protection of Youth (I.P.P.J.), a project designed to assess the future of 363 male and female institutionalized juveniles in five youth facilities in Belgium, found that length of stay in an institution, time spent in a residential environment, improvement in one's self-image, and attachment to one or more persons predicted desistance from offending. However, the researchers fail to delineate how desistance is similar or different for males and females.

While research on desistance has been flourishing over the past several decades, much remains unknown about female desistance. One explanation for the lack of knowledge regarding female criminal career patterns stems from the fact that the majority of longitudinal studies on offending have been conducted with male samples (Piquero, 2000). In those longitudinal studies that include both males and females, significantly fewer females are often included in the sample, thus precluding researchers from making meaningful conclusions in regard to desistance patterns for females (Giordano et al., 2002). Emerging research on the various dimensions of criminal careers besides desistance, such as persistence and late onset, has enabled researchers to pinpoint risk factors related to membership in discrete groups (Carr & Hanks, 2012; Gunnison & McCartan, 2005; Moffitt, 1993; White, Lee, Mum, & Loeber, 2012; Wiecko, 2014; Zara & Farrington, 2009). However, researchers have yet to vigorously examine how psychosocial risk factors may vary across members of these discrete offender groups in regard to gender. In other words, direct comparisons of risk factors have not been made (except Gunnison & Mazerolle, 2007).

With the above-mentioned limitations in mind, this research attempts to make several contributions to criminological research on criminal careers. This study examines the factors that distinguish desisters from other discrete offending groups (i.e., persisters, late onsets, and conformers) by gender—a step not taken by previous researchers. This research is one of the first prospective longitudinal examinations of male and female desistance patterns where the sample size for females was large enough to conduct meaningful analyses. In addition, this research explores whether the processes that give rise to male and female desistance from general delinquency, or less serious crime, ultimately differ. Given that factors for male and female onset into criminality are paradoxically similar and distinct, factors distinguishing desisters from other discrete offending groups may also be similar and different by gender. Specifically, theoretically informed predictors of desistance from a multitude of criminological theories are utilized in this research for a systematic exploration into what factors may promote desistance.

Method

The data utilized in the following analyses stem from the National Youth Survey (NYS) (Elliott, Huizinga, & Ageton, 1985; Elliott, Huizinga, & Menard, 1989). The NYS is a panel study developed from a national probability household sample of adolescents across the United States and spans years 1976–1993 (Elliott et al., 1985, 1989). Using a multistage, cluster sampling design, Elliott et al. (1985) noted that this sampling procedure resulted in the listing of approximately 67,000 households, 8,000 of which were selected to be included in the sample. The approximate 8,000 households generated 2,360 eligible youth for inclusion in the study. In 1976, 1,725 youths, males and females ages 11–17, were finally selected to be included in the first wave of the NYS.¹ Since the first point of data collection in 1976, eight additional waves of data have been collected on this cohort. In 1993, the last wave of data was collected on this sample when they reached the ages of 27–33. Currently, only seven waves of data are publically available; the data for those waves (1–7) spanning years 1976–1987 were downloaded from the webpage of the Inter-University Consortium for Political and Social Research.

Throughout each of the seven waves of the NYS, data were collected via personal interviews with respondents. In each wave of NYS, the principal focal point was on the immediate prior year. Therefore, the reference period for the measures called for the respondents to recall incidents that occurred in the previous 12 months. In wave 1 of data collection, 1,725 youths were randomly selected for examination in the NYS. Of the 1,725 youths that were selected for inclusion in the wave 1 sample, there were a total of 917 males and 808 females. For purposes of future analyses, only those subjects who have data across all seven waves are included in the final sample. Due to missing data at any wave, 195 individuals were excluded from the final sample. Therefore, the total number of individuals for which data exist across all seven waves is 1,517 subjects² of the 1,725 original sample, representing a 12% attrition rate. Of the 1,517 individuals for which data exists across all seven waves, there were a total of 789 males and 728 females.

At wave 1, the average age of the sample was 13.8 years, 47% of the sample was female, and 63% of the sample reported being employed in the last year. In addition, 79% of the sample were Caucasian, 14% were African-American, and 4% were Latino/a. According to Elliott and colleagues (1985), participating subjects at wave one of the NYS “appear to be representative of the total 11 through 17 year-old youth population in the United States as

established by the U.S. Census Bureau” (p. 92) with respect to the demographic characteristics of age, race, and sex in 1976.

Measuring Desistance

Because empirical research on desistance has been evolving, measurement of desistance has been difficult. In fact, some researchers have explained that there are “serious measurement problems inherent in assessing desistance” (Laub & Sampson, 2001, p. 9). Therefore, research measuring desistance patterns from criminality faces some empirical challenges. How researchers operationally define desistance constitutes one such challenge (Laub & Sampson, 2001). For instance, researchers have defined desistance as no criminal offending for a length of time greater than two years or greater than fifteen years (Farrington & Hawkins, 1991; Sampson & Laub, 1993; Shover & Thompson, 1992).

In the present study, desistance from offending is defined as non-offending for a period of at least three years.³ For example, any youth who reported participation in less serious criminal acts (e.g., joyriding, selling marijuana, stealing) one or more times during waves 1–6, but not at any time during the years 1984, 1985, or 1986 of wave 7 were classified as a “desister.” General delinquency measures were utilized to construct the desister groups and yielded 315 general delinquency desisters. Those youths who reported participation in less serious criminal acts one or more times during waves 1–6 and reported continued participation at any time during the years 1984, 1985, or 1986 of wave 7 were classified as a “persister.” Once again, general delinquency measures were utilized to construct the persister groups that resulted in 472 general delinquency persisters. Utilizing the same methodology, there were 92 “conformers” and 34 “late onsets.”

Measures of Theoretical Constructs

Measures included in the analyses included characteristics from a multitude of criminological traditions including social control, deterrence, strain, and social learning. For example, to address Gottfredson and Hirschi's (1990) assertions about low self-control, an attitudinal measure of antisocial “propensity” adapted from Paternoster and Mazerolle's (1994) research is included in the analysis. Respondents were asked a series of questions to assess whether they approved of criminal or antisocial behaviors (e.g., lying, cheating, beating others up, breaking rules, breaking laws). The scale was constructed by summing across eleven questions.

A series of measures were included to assess indicators of social control. For example, to gauge

family attachment, respondents were asked about their relationships with parents (e.g., amount of warmth and/or affection, support and/or encouragement received from parents). A scale was created by summing across four items that assess various dimensions of family attachment. Respondents were asked about their marital status (not married = e.g., single, widow, etc., versus married) and the quality of the marital relationship, including questions on the importance of marriage and marital satisfaction, to gauge marital status and attachment to a spouse/partner. For the current analysis, a spouse attachment scale was constructed by summing across six items that tapped respondent's ties to their spouse. The NYS also includes items that assess with whom respondents reside. This allows for an assessment of whether there are differential influences on desistance for respondents residing with a spouse as opposed to a boyfriend/girlfriend. Responses on with whom the respondent was living during the past year were coded into two separate dummy variables where 1=spouse and 0=not a spouse or 1=boyfriend/girlfriend and 0=not a boyfriend/girlfriend.

Further measures of social control considered child attachment. Respondents were asked about the number of hours per week spent with children, whether they enjoyed being with their children, and whether they were satisfied with their relationship with their children. The three items were summated to create a child attachment scale.⁴

Respondents were asked to assess how wrong certain acts (e.g., destroying property, selling drugs) were, and responded on a scale ranging from very wrong to not at all wrong in order to gauge prosocial attitudes. The nine items comprising the prosocial attitudes scale were based on a scale previously constructed by Paternoster and Mazerolle (1994). Respondents were asked to report how much time they spend engaging in conventional activities (e.g., studying, in school activities) during the evenings of a school week and on the weekend in order to determine involvement in conventional activities. Responses from 12 questions were summed across categories to create a scale gauging involvement in conventional activities.

Social control measures were also included for education level (dummy variables assessing high school graduation status and college graduate status), employment status (employed in past year), attachment to work (importance and satisfaction with work), religious attachment (how often they attended religious services and how important religion was in their lives), pregnancy (ever pregnant), and drug and alcohol use (how often used alcohol and drugs in the past year).

To assess differential association/social learning theory, exposure to deviant peers was assessed by asking respondents if they had friends who had committed a variety of criminal and delinquent offenses (e.g., sold drugs, cheated on school tests). A nine item scale was used in the current study based on one previously constructed by Paternoster and Mazerolle (1994). A measure for attachment to peers was also included. This nine item scale was based on the items used previously by Warr (1998; i.e., time spent with peers) and also includes measures assessing peer influence, peer importance, peer satisfaction, peer support, and peer loyalty.

To assess strain, a measure of occupational strain was included (e.g., a five-item measure to gauge strain from the gap between educational aspirations such as graduating from college and occupational expectations such as getting a good job or earning a good salary) as well as measures of negative or noxious influences including neighborhood problems (e.g., vandalism, abandoned houses, burglaries and thefts, run-down buildings, muggings and assaults), negative life events (of parents and respondent such as serious accidents, illnesses, death, divorce, unemployment), and negative relations with adults (e.g., parents thinking respondent needs help, is a bad kid, is messed up, gets into trouble, does things against the law, and breaks rules; c.f. Paternoster & Mazerolle, 1994).

Measures for certainty and severity of punishment were included in order to assess deterrence or rational choice influences. According to the theory, individuals weigh the costs and benefits of any action prior to making a decision to become involved in crime. In the NYS, respondents were asked what they thought their chances are of getting ticketed/arrested for becoming involved in a series of acts (e.g., attacking someone, stealing something worth more than \$50). Respondents indicated their responses ranging from a 0 to 10, indicating a 0% chance to 100% chance respectively, and a six-item certainty scale was created where high scores indicate a high perception of certainty of punishment. Respondents were questioned about their perception of severity of punishments for a variety of criminal acts (e.g., attacking someone, breaking into a building) to assess severity. A six item severity scale was constructed where high scores indicate a high perception of the severity of punishment.

Measures of Theoretical Constructs

Following Elliott et al. (1985, 1989), a general delinquency scale⁵ was created using specific items sought to tap general acts of delinquency, or less serious crime. This scale was created by summing

the responses of 9 items and including a range of items from carrying a hidden weapon to theft.

Measures of Theoretical Constructs

Several control variables were utilized in the multivariate analyses. Age was a control variable measured in years at the time of the assessment. A second control variable utilized in the analyses was race and was coded 0 for white and 1 for non-white. Sex was also used, whereby males were coded as 0, and females were coded as 1.

Analyses

The analysis first involved conducting a series of ANOVA comparisons between discrete offender groups (i.e., desisters, persisters, late onsets, and conformers) to assess whether various psychosocial characteristics at wave 6 actually differ across groups. T-test comparisons were then conducted to assess where precise mean level differences exist between desisters and persisters. These comparisons also allow for an assessment of how the

characteristics differ between genders. Finally, logistic regression analyses were conducted for the female and male samples in order to pinpoint whether any of the theoretically driven variables predicted desistance from general delinquency.

Results

The Role of Gender for Discrete Offender Groups

After ANOVA comparisons were made on the various psycho-social risk factors for the discrete groups to determine if differences existed between the groups, t-test comparisons were conducted between the discrete groups to better pinpoint how the groups may have differed. The results of mean level comparisons across discrete offender groups (e.g., desisters, persisters, late onsets, and conformers) for females are reported in Table 1 while results of post-hoc tests for males are reported in Table 2. In general, the results reveal a number of important similarities and differences across groups.

Table 1 - T-Test Comparisons Between Discrete Offender Groups (wave 6: Females), $n = 728$

	T-Value					
	D vs. P	D vs. L	D vs. C	P vs. L	P vs. C	L vs. C
Social Control						
Marital Status (1983)	3.053**	-.366	1.195	1.487	-1.097	.937
Moral Belief Index	2.341**	-1.892*	-3.158**	-2.296**	-4.927**	.097
Involvement in Conventional Activities	1.966*	1.879*	-.459	1.181	-1.876*	-1.736*
Employed (1981)	.748	.547	2.441**	.215	1.845*	.767
Employment Attachment	1.133	.691	-2.966**	.347	-4.033**	-1.481
Religious Attachment	2.230**	-1.142	-3.047**	-1.903*	-4.337**	-.498
Transitional Life Events						
Failed Pregnancy	.805	-.111	-4.097**	-.438	-5.230**	-1.00
Differential Association/ Social Learning						
Delinquent Peer Exposure	-1.306	1.299	5.605**	2.036**	7.019**	1.238
Peer Attachment	-2.259**	-.427	-2.019**	.483	-.050	-.539
Strain						
Traditional Strain	.073	-.490	-3.163**	-.538	-3.346**	-1.265
Neighborhood Problems	-2.010**	.171	1.304	1.033	2.802**	.492
Deterrence/Rational Choice						
Certainty of Punishment	2.724**	2.237**	-1.531	1.457	-3.358**	-2.692**
Severity of Punishment	2.441**	2.349**	-1.419	1.284	-3.206**	-2.906**
Drug/Alcohol Use						
Use-1981	-1.961*	2.546**	6.645**	3.331**	8.215**	.304
Use-1982	-1.538	4.095**	6.372**	3.394**	7.649**	.095
Use-1983	-1.326	3.052**	7.144**	3.836**	7.892**	1.457

a T-values are those obtained after adjusting for non-homogeneity of variances.

* $p < .05$

** $p < .10$

Table 2 - T-Test Comparisons Between Discrete Offender Groups (wave 6: Males), $n = 789$

	T-Value					
	D vs. P	D vs. L	D vs. C	P vs. L	P vs. C	L vs. C
Social Control						
Marital Status (1983)	1.454a	.493	-1.357a	-.122	-2.039a*	-1.450a
Moral Belief Index	2.283**	-2.932a**	-5.622a*	-4.860a**	-8.868a**	-1.240a
H.S. Graduate	1.685a*	.267	-2.640a**	-.345	-4.772a**	-1.254a
Employed (1981)	1.082a	1.966a*	1.597a	1.661a	1.186a	-.548
Employed (1982)	.847	2.199a**	1.294a	1.969a*	.976a	-1.037
Religious Attachment	2.289**	-.329	-2.771**	-1.388	-4.272**	-1.892*
Differential Association/ Social Learning						
Delinquent Peer Exposure	-4.559**	3.393a**	4.00a**	8.240a**	7.127a**	1.416
Peer Attachment	.935	2.756**	2.102a**	2.321**	1.818a*	-.071
Strain						
Negative Relations with Adults	-2.983a**	.201	1.605a	2.649a**	4.239a**	.926
Deterrence/Rational Choice						
Severity of Punishment	1.389	-.300	-1.451	-.938	-2.241**	-.757
Drug/Alcohol Use						
Use-1981	-1.678	4.126a**	3.552**	5.724a**	5.625a**	.317
Use-1982	-1.588	4.625a**	3.939**	6.535a**	6.729a**	.796a
Use-1983	-2.615a**	2.234**	5.248a**	4.78a**	7.924a**	1.206

a T-values are those obtained after adjusting for non-homogeneity of variances.

** $p < .05$

* $p < .10$

T-test comparisons ($p < .05$, $p < .10$) reveal that female desisters from general delinquency differed from the other discrete groups on factors such as marriage, moral beliefs, attachment to religion, certainty and severity of punishments, attachment to peers, drug/alcohol use, and neighborhood problems. Specifically, t-test comparisons, presented in Table 1, reveal that female desisters were more likely ($p < .05$) than female persisters to be married in 1983, possess stronger moral beliefs, and to be attached to religion. Additionally, female desisters had more ($p < .05$) failed pregnancies than female conformers. Further, female desisters were more likely ($p < .10$) to be involved in conventional activities than female persisters or female late onsets. However, female desisters were less likely ($p < .05$) to be attached to religion than female conformers. Moreover, female desisters had significantly ($p < .05$) less traditional strain than conformers and were less likely ($p < .05$) than persisters to reside in a neighborhood plagued by problems. Also, female desisters perceived significantly ($p < .05$) higher certainty and severity of punishments than persisters or late onsets, but they were more likely ($p < .05$) to use drugs/alcohol in

1981, 1982, and 1983 than female late onsets and female conformers.

Through pairwise comparisons of these variables, presented in Table 2, many significant differences between the male discrete groups emerged. For example, male desisters had stronger ($p < .05$) moral beliefs than persisters, but were significantly less likely to possess strong moral beliefs than male late onsets ($p < .05$) and male conformers. In addition, male desisters were significantly more likely ($p < .10$) to graduate from high school than male persisters, but male desisters were less likely ($p < .05$) to graduate from high school than male conformers. Further, male desisters were more likely to be employed in 1981 ($p < .10$) and 1982 ($p < .05$) than male late onsets. Moreover, male desisters were significantly ($p < .05$) more strongly attached to religion than male persisters, but they had weaker religious attachment when compared to male conformers. Male desisters were significantly less likely ($p < .05$) to have delinquent peer associations than male persisters. However, male desisters were significantly more likely ($p < .05$) to have delinquent peers and attachment to peers than male late onsets

and male conformers. Also, male desisters were significantly less likely ($p < .05$) than male persisters to have negative relations with adults. The t-test analyses did reveal that male conformers were significantly more likely ($p < .05$) to perceive a high severity of punishment than male persisters. Finally, male desisters were significantly more likely ($p < .05$) to use drugs/alcohol in 1981, 1982, and 1983 than male late onsets and male conformers but significantly less likely ($p < .05$) to consume drugs/alcohol than male persisters.

In sum, significant similarities and differences emerged between the discrete offender groups across gender. While some risk factors for the discrete groups were similar across gender, such as moral beliefs and drug/alcohol use, differences between the groups emerged as well. For instance, the genders differed on marriage, delinquent peer exposure, and neighborhood problems. In order to ascertain whether the risk factors that predict desistance from general delinquency were similar or different for the genders, logistic regression analyses were utilized.

The Role of Gender in Predicting Desistance and Persistence from General Delinquency

An examination of which psycho-social factors predict desistance and persistence from general delinquency for female offenders at wave 6 is presented in the Appendix.⁶⁷ Results of the analyses

revealed that age was a consistently significant ($p < .05$) predictor of desistance and persistence of general delinquency across all twenty-one models. In a majority of the models, respondents who were older were more likely to desist. For social control theory, marital status in 1983 predicted female desistance where $p < .05$. Specifically, being married was associated with desistance. This finding supports Sampson and Laub's (1993) contention that the development of a quality marital bond can promote desistance as well as Giordano et al.'s (2002) research regarding female desistance. Religious attachment also predicted female desistance ($p < .05$). In addition, neighborhood problems were negatively associated with desistance and were, therefore, a significant predictor of persistence ($p < .10$). Further, a perception of high certainty and severity of punishment ($p < .05$) was also predictive of female desistance from general delinquency. Finally, drug/alcohol use in 1981 significantly differentiated female persisters from female desisters with persisters being more likely to utilize drugs and alcohol during this year. For the full model,⁸ females who were older, married, had parents who had experienced negative life events in 1983, and perceived a high certainty of punishment were more likely ($p < .05$, $p < .10$) to desist from general delinquency (see Table 3).

Table 3. Wave 6 Predictors of Desistance/Persistence from General Delinquency, Females-Full Model

Variable	<i>B</i>	<i>SE B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>
Age	.1264	.0642	3.8795	1	.0489
Marital Status (1983)	.5215	.2649	3.8758	1	.0490
Negative Life Events-Parents (1983)	.3674	.2191	2.8105	1	.0937
Certainty of Punishment	.1902	.0900	4.4678	1	.0345
Use-1981	-.1450	.0999	2.1089	1	.1465

Table 4. Wave 6 Predictors of Desistance/Persistence from General Delinquency, Males-Full Model

Variable	<i>B</i>	<i>SE B</i>	<i>Wald</i>	<i>df</i>	<i>p</i>
Age	.0637	.0724	0.7734	1	.3792
Moral Belief Index	.3218	.2040	2.4894	1	.1146
Delinquent Peer Exposure	-.2137	.0746	8.1988	1	.0042
Negative Relations with Adults	-.2199	.2174	1.0230	1	.3118
Use-1983	.1329	.1268	1.0993	1	.2944

An examination of which psycho-social factors predict desistance (versus persistence) from general delinquency for male offenders at wave 6 is presented in the Appendix. Results from the analyses revealed that age is a significant predictor (where $p < .05$, $p < .10$) of desistance from general delinquency for all models with the exception of two. Specifically, male respondents who were older were more likely to desist and those who were younger were more likely to persist. For social control theory, higher levels of moral beliefs, family attachment, and religious attachment increased the likelihood ($p < .05$, $p < .10$) of desistance for males. However, delinquent peer exposure ($p < .05$) and negative relations with adults ($p < .05$) increased the likelihood of male persistence from general delinquency. Finally, drug/alcohol use in 1981, 1982, and 1983 significantly differentiated male persisters from male desisters with persisters being more likely to utilize drugs and alcohol during these years. For the full model,⁹ males with delinquent peer associations had an increased likelihood ($p < .05$) of persistence in general delinquency.

In sum, logistic regression analyses of wave 6 predictors of desistance/persistence from general delinquency for females revealed that respondents who are older, married in 1983, have parents who experienced negative life events, and possess a high perception of the certainty of punishment are more likely to desist. On the other hand, for males, reductions in delinquent peer associations increased the likelihood of male desistance from general delinquency.

Discussion

The results illustrate that numerous theories provide useful accounts for understanding desistance. One of the central themes in this research investigation was the exploration into whether gender similarities and/or differences exist across discrete offender groups. Results from the t-test analyses revealed similarities in the psycho-social factors that distinguished desisters from other discrete offender groups by gender. That is, there are indeed distinct similarities and differences in risk factors for both female and male desisters when compared to other discrete offending groups such as persisters. Female desisters were more likely than female or male persisters to be married. This finding is consistent with findings by Gunnison and Mazerolle (2007; however, it is at odds with other research that has posited that marriage should differentiate desisters from other offending groups (Sampson & Laub, 1993). Similarly, both female and

male desisters demonstrated reductions in drug and alcohol use compared to female and male persisters. Thus, measures derived from several criminological theories appear important for differentiating desisters and persisters.

Another central theme of this research was to explore the predictors of desistance from general delinquency by gender and to pinpoint any similarities or differences. Conducting logistic regression analyses revealed that there are some similarities and differences in the predictors of female and male desistance from less serious crime. Age was a consistent predictor of female and male desistance from less serious crime. For example, females and males who were older were more likely to desist from general delinquency. This finding supports Hirschi and Gottfredson's (1983) argument that the relationship between age and crime is direct regardless of gender.

While there were some similarities in the predictors of desistance across gender, differences also emerged across gender. One of the biggest differences in predictors of desistance for females and males was marriage. Females who were married were more likely to desist from general delinquency. This finding is consistent with some researchers who have found a small "marriage effect" for females in relationship to desistance (Doherty & Ensminger, 2013; King, Massoglia, & MacMillan, 2007; Simons, Stewart, Gordon, Conger, & Elder, 2002). On the other hand, marriage was not a significant predictor of male desistance. While some previous research has found marriage to be a predictor of male desistance from criminality (Craig & Foster, 2013; Horney et al., 1995; King et al., 2007; Sampson & Laub, 1993), other research has suggested that the relationship between marriage and desistance for males is not direct and that disruption in delinquent peer associations may explain male desistance more so than marriage (see Simons et al., 2002; Warr 1998, 2002). Previous research linking male desistance to reductions in delinquent peer associations was yet another key difference between the genders in this research investigation. In fact, a reduction in delinquent peer associations was the only predictor of male desistance from less serious crime. This finding lends support to social learning theories that posit that individuals learn criminal or conforming behavior from their associations (Akers, 1990; Sutherland, 1947). Further, this finding lends support to assertions made by previous researchers that reductions in delinquent peer associations, rather than marriage, explains male desistance (Simons et al., 2002; Warr 1998, 2002). Another difference in the predictors of desistance was having parents who experienced negative life events. This predicted

female desistance but not male desistance. Since this finding is at odds with strain theory, further exploration is required. Finally, for females, a perception of high certainty of punishment predicted desistance from less serious crime, but these predictors did not impact male desistance from less serious crime. Thus, this finding lends some initial support for the deterrence/rational choice perspective and adds to the scant literature on the relationship between this theoretical tradition and female desistance, which has suggested that females may desist from crime when they realized the impact of their decisions (see Sommers et al., 1994).

One limitation of this research centers around the reliance on self-reports of offending. The use of self-reports can be problematic. Respondents may exaggerate their involvement in crime or just forget to report the types of crimes in which they partook (Bachman & Schutt, 2013). Additionally, self-report crime surveys tend to have respondents report on minor forms of criminal offending. Since this research investigation focuses on minor forms of offending from the self-report survey, this is yet another limitation of this study. Moreover, the data utilized for this research investigation is from an older dataset. Despite its age, the NYS was still utilized since the dataset is rich in psychosocial variables and because there is a lack of existence of, or researcher access to, other longitudinal data set alternatives—including datasets that may be a bit more modern. Although the data are older, the theoretical constructs that are being investigated should remain relatively invariant across generational strata. The age of the data does pose a couple possible limitations including: 1) several types of criminal acts are not captured (ex., technology based crimes); and 2) the absence of nuanced risk factors (ex. prior sexual abuse) for females are not included in the dataset.

A further limitation of this research investigation concerns the operational definition of desistance. Some researchers argue that desistance is not a state but rather a process (see Bushway, Thornberry, & Krohn, 2003; Steffensmeier & Ulmer, 2005). While employing a process definition is appealing since it overcomes the limitations of the static definition of desistance (i.e., arbitrary and inconsistent measures of when desistance occurs), researchers still disagree on whether the operational definition of desistance should be considered as a process. Clearly, measuring desistance as a process is not the current norm in the field. Regardless of the overall finding that significant differences do not exist between females and males, this research does inform the field of criminology about the theories that may offer a contribution to the understanding of desistance. For

instance, Sampson and Laub's (1993) age-graded theory provides several predictors of female and male desistance from general delinquency. Additionally, differential association/social learning theory also explains female and male desistance from general delinquency. In regard to strain theory, many of the strain variables did not predict desistance from general delinquency. Finally, deterrence/rational choice theory offers a solid explanation for female desistance from general delinquency but failed to predict male desistance from general delinquency. Thus, to summarize the results, criminologists should consider developing a unified theory of desistance for females and males. A unified theory that integrates age-graded theory, differential association/social learning theory, strain theory, and deterrence/rational choice theory would be appropriate for explaining female desistance from less serious crime. Moreover, a comprehensive theory that draws on age-graded theory, differential association/social learning theory, and strain theory would also contribute to explaining male desistance from less serious crime.

One research implication from this study is that correctional programming to foster desistance should be both inclusive and gender specific. Results from this investigation revealed that females who perceived high certainty of punishment were more likely to desist. Implications of this finding suggest that rehabilitation programs administered to female delinquents in a correctional setting or an out-patient group therapy session should strive to build the female's perception of how certain punishments meted out by the criminal justice system can be. The research findings of this investigation also offer policy implications for gender specific programming for males. For instance, reductions in delinquent peer associations predicted male desistance. Therefore, mentoring programs that introduce pro-social interactions and foster associations and bonds with non-delinquent peers may help to promote male desistance from less serious crimes (Shover, 1996).

In conclusion, while some researchers have concluded that psycho-social predictors of crime are similar across gender, other criminologists have argued that predictors of crime may vary between females and males (Belknap, 2007; Burton, Cullen, Evans, Alarid, & Dunaway, 1998; Smith & Paternoster, 1987). The results from this investigation reveal some similarities and differences in the risk factors between discrete offender groups by gender and the predictors of female and male desistance from less serious crime. Therefore, researchers studying desistance cannot assume the generality of effects of variables across gender (see Gottfredson & Hirschi, 1990); rather, they must also

consider the possibility of specific effects of predictors on female and male desistance.

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Appendix: Logistic Regressions for Females and MalesWave 6 Predictors of Desistance/Persistence from General Delinquency, Females, $n=335$

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Control Variables									
Age	.1441**	.0697	.1463**	.1523**	.1479**	.1510**	.1503**	.1128*	.1481**
Race	.0109	.8845	.0503	.0374	.0475	-.3459	-.0128	.0587	.0470
Self-Control									
Delinquent Disposition		-.2139							
Social Control									
Employed (1981)			.0307						
Employed (1982)				-.1812					
Employed (1983)					.0082				
Employment Attachment						.1879			
Religious Attachment							.3340**		
Marital Status (1983)								.6144**	
Transitional Life Events									
Pregnant									-.0015

** $p < .05$ * $p < .10$

Appendix: Logistic Regressions for Females and Males

Wave 6 Predictors of Desistance/Persistence from General Delinquency, Females, $n=335$ (continued)

	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18	Model 19	Model 20	Model 21
Control Variables												
Age	.1481**	.1526**	.1423**	.1549**	.1562**	.1630**	.1333*	.1384**	.1640**	.1537**	.1397**	.1405**
Race	.1927	.4658	.1583	.1414	.1059	.0822	.1647	.0549	-.0060	-.0556	-.0341	.0084
Differential Association/ Social Learning												
Delinquent Peer Exposure	-.0400											
Peer Attachment		-.1479										
Strain												
Neighborhood Problems			-.1131*									
Negative Life Events-Parents (1981)				-.2395								
Negative Life Events-Parents (1982)					.0376							
Negative Life Events-Parents (1983)						.4049*						
Negative Relations with Adults							-.2349					
Deterrence/Rational Choice												
Certainty of Punishment								.2028**				
Severity of Punishment									.2236**			
Drug/Alcohol Use												
Use-1981										-.2004**		
Use-1982											-.1228	
Use-1983												-.0933

** $p < .05$

* $p < .10$

Appendix: Logistic Regressions for Females and Males**Wave 6 Predictors of Desistance/Persistence from General Delinquency, Males, $n=452$**

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
Control Variables											
Age	.1409**	.1604**	.1035	.1349**	.1336**	.1358**	.1485**	.1404**	.1246**	.0828	.1528**
Race	-.0233	.0082	-.1774	.0934	.1165	.1074	.1386	.0442	.0994	.1899	.2830
Social Control											
Moral Belief Index		.3622**									
Family Attachment			.9892*								
Employed (1981)				.0442							
Employed (1982)					.1320						
Employed (1983)						.1315					
Employment Attachment							.0800				
Religious Attachment								.3054**			
Marital Status (1983)									.2073		
Differential Association/ Social Learning											
Delinquent Peer Exposure										-.2126**	
Peer Attachment											.1442

** $p < .05$ * $p < .10$

Appendix: Logistic Regressions for Females and Males

Wave 6 Predictors of Desistance/Persistence from General Delinquency, Males, $n=452$ (continued)

	Model 12	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18	Model 19	Model 20	Model 21
Control Variables										
Age	.1446**	.1511**	.1478**	.1491**	.1195*	.1409**	.1515**	.1648**	.1530**	.1364**
Race	.1549	.0600	.0519	.0536	.5975*	.0998	-.0419	.0398	.0453	.0375
Strain										
Neighborhood Problems	-.0759									
Negative Life Events-Parents (1981)		-.0656								
Negative Life Events-Parents (1982)			-.1376							
Negative Life Events-Parents (1983)				-.0726						
Negative Relations with Adults					-.4731**					
Deterrence/Rational Choice										
Certainty of Punishment						.0485				
Severity of Punishment							.1168			
Drug/Alcohol Use										
Use-1981								-.1749**		
Use-1982									-.1519*	
Use-1983										-.1956**

** $p < .05$

* $p < .10$

ENDNOTES

-
- ¹ The 635 adolescents selected who did not participate in the first wave can be attributed to parent refusal, youth refusal, or the inability to make contact with the potential subject (Elliott et al., 1985).
 - ² Of the original 1,725 respondents, 1,530 had data across all seven waves. However, 13 additional respondents were omitted due to a computer error which rendered those cases unusable bringing the final sample size to 1,517.
 - ³ Only respondents with data across all 7 waves were utilized for this analysis.
 - ⁴ This part of the research is limited to the sub-sample of offenders who have had children over the sampling period.
 - ⁵ With the exception of those items which overlap with their “index offenses” scale or are considered serious offenses. Items included: bought stolen goods, carried a hidden weapon, stole something worth less than \$5, prostitution, sold marijuana, sold hard drugs, disorderly conduct, joyriding, and stole things worth between \$5-50.
 - ⁶ Due to the relatively smaller sample size for late onsetters and conformers, for purposes of the logistic regression analysis, desisters and persisters were directly compared in the logit model. Hence, the dependent variable was coded as 0=persister and 1=desister. Note: this reduced the overall female sample size to 335 and male sample size to 452.
 - ⁷ The predictor variables used to derive these models were not standardized prior to inclusion in each model. Thus, the variables maintain their original scaling but comparing relative strengths of coefficients within models should not be done.
 - ⁸ Variables included in the full model were those that were statistically significant ($p < .10$) in models 1-21 of the Appendix. In addition, if any variable was selected for the full model that dropped the sample size below 100, it was excluded. Moreover, two predictors from the social control tradition and two predictors from the strain theoretical tradition were significant, and, in each case, the predictor with the higher Wald statistic value was chosen for inclusion in the full model.
 - ⁹ Variables included in the full model were those that were statistically significant ($p < .10$) in models 1-21 of the Appendix. In addition, if any variable was selected for the full model that dropped the sample size below 100, it was excluded. Moreover, two predictors from the social control tradition and three predictors from the drug and alcohol use category were significant, and, in each case, the predictor with the higher Wald statistic value was chosen for inclusion in the full model.



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Public Interest in Sex Offenders: A Perpetual Panic?

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ABSTRACT AND ARTICLE INFORMATION

All 50 states have laws that require sex offenders to register with law enforcement and for that information to be made publicly available. The rapid passage of sex offender policy, coupled with increased media attention and sensationalized cases, suggests a moral panic. However, if it is a moral panic, we would expect it to expire as quickly as it appeared. But this does not seem to be the case. Political and media interest seem persistent, though the role of public interest is unclear. We use Google Trends data for the United States, employing an interrupted time-series design to analyze public interest in sex offenders before and after passage of the Adam Walsh Act in 2006. We found that such interest is fairly stable over time. Our results have implications for how we understand sex offenders, how we understand moral panics, and the ways in which laws are derived from them.

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The first piece of federal sex offender legislation, the Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act, was passed in 1994. This law required that states comply with federal guidelines to establish sex offender registries at state and local levels. Sex offender laws in the United States are not new, with California having established sex offender registration back in 1947 (La Fond, 2005). But in the 20 years since the Wetterling Act, all 50 states have enacted laws that require sex offenders to register with state and local law enforcement and for that information to be made publicly available, usually on the Internet through a searchable database. In addition, with the passage of

The Adam Walsh Child Protection and Safety Act (AWA) by Congress in 2006, many states and local jurisdictions have passed increasingly restrictive laws about how often, for how long, and what information sex offenders must register, as well as where they can live and where they can work.

Recently, scholars have begun to examine the unintended consequences of these laws and have produced a growing body of evidence demonstrating that these laws make reintegration into conventional life very difficult and generally have little to no effect on sex offender recidivism (Burchfield & Mingus, 2008; Levenson & Cotter, 2005; Levenson, D'Amora, & Hern, 2007; Levenson & Hern, 2007;

Sample & Kadleck, 2008; Sandler, Freeman, & Socia, 2008; Schram & Milloy, 1995; Tewksbury & Jennings, 2010; Tewksbury & Lees, 2006; Vasquez, Maddan, & Walker, 2008; Zgoba, Witt, D'Alessandro, & Veysey, 2008). Despite this evidence, myths about sex offenders remain, including that victimization is usually against children, recidivism rates are high, the sex offender population is homogenous in terms of offending patterns, and rehabilitation is impossible (Dowler, 2006; Sample & Bray, 2003, 2006). Further, these myths are perpetuated by the media, the public's main source of information about crime (Dowler, 2006; Galeste, Fradella, & Vogel, 2012). Thus, lawmakers appear to show no interest in rescinding the more onerous restrictions associated with being a registered sex offender; some remain intent on increasing these restrictions, with threats to that effect being disseminated through the media in the wake of high-profile sex crimes.

The rapid passage of sex offender policy in the 1990s, coupled with increased media attention and lurid, sensationalized cases of homicides against children, suggests a sex offender moral panic (Horowitz, 2007). However, if this were conceptualized as a traditional moral panic, we would expect media attention and public interest to expire almost as quickly as it appeared (Cohen, 1972/2002). But in the case of sex offending, this does not seem to be the case. Political and media interest and attention to sensational sex offenses and the passage of sex offender reform seem persistent, though the role of public interest is unclear. This study examines public attention toward sex offenders and offending over time. We use Google Trends data for the United States from 2004-2012, employing multi-level modeling to analyze public interest in sex offenders before and after passage of the Adam Walsh Act in 2006.¹ We hope to determine if there is a "perpetual" sex offender panic—consistent public interest in the topic over time. Our results will have implications for not only how we study and understand sex offenders, but also how we study and understand moral panics, and the ways in which laws are derived from them.

Literature Review

Moral Panics

Many scholars believe that sex offender laws have been the result of a series of moral panics dating back at least to the turn of the century (Jenkins, 1998; Sutherland, 1950; Zgoba, 2004). The concept of "moral panic" (Young, 1971) was most thoroughly defined by Cohen (1972/2002) who identified periods

in which moral entrepreneurs, with the help of the media and accredited experts, construct a specified problem or group of people as a threat to decency, safety, and social order. In response to this new threat, legislation is crafted that is often viewed as symbolic in nature (Rochefort & Cobb, 1994; Sutherland, 1950). The collective response this process engenders is described as a "panic" because the threat is generally greatly overstated, misdirected, and irrational, yet it is reaffirmed by policy makers and the creation of new law (Ben-Yehuda, 1990; Jenkins, 1998). Cohen's criteria lay the groundwork for a processual understanding of moral panics, with an emphasis on the sequence or trajectory of the panic; the timing and social context of such an event; and the role that politicians, agents of social control, and the media play in constructing the panic (Cricher, 2008). More recently, however, some suggest an attributional model of moral panics (Cricher, 2008). This approach identifies the necessary elements of a moral panic, including a heightened level of concern that is also disproportionate to the harm presented, increased hostility toward the source of the panic, a minimal degree of consensus about the threat, and volatility in the emergence and dissipation of the panic (Goode & Ben-Yehuda, 1994).

Both the processual and attributional models have been used to investigate the construction and legislation of new categories of deviance. While new laws passed in the wake of moral panics may address instrumental goals, scholars have also been attuned to the symbolic function of much of this legislation (Cohen, 1972/2002; Sample, Evans, & Anderson, 2011). That is, these laws serve more to assuage public fear in the wake of a moral panic, reinforce or redraw moral boundaries, and scapegoat entire classes of people whose behaviors trigger our most personal and subconscious fears (Erikson, 1966; Garland, 2008; Meloy, Saleh, & Wolff, 2007; Sample, et al., 2011; Stolz, 1983) than to change the behavior of those targeted by the law. Whatever the outcome, both the processual and attributional models of moral panics suggest that, by their very nature, moral panics are temporary calamities that draw public attention to an emerging social problem and are often resolved through moral or legal condemnation which, in turn, reaffirms societal values (Cohen, 1972/2002; Garland 2008; Goode & Ben-Yehuda, 1994; Hier, 2008, 2011).

A third approach to the study of moral panics has emerged which suggests that moral panics perform a valuable moral regulatory function in society (Cricher, 2009; Garland, 2008; Hier, 2011). This model conceives of a moral panic as "the volatile local manifestation of what can otherwise be

understood as the global project of moral regulation” (Hier, 2002, p. 329). Thus, moral panics emerge from a continuum of routine moral regulation, and are more likely when the issue involves a high level of threat to the moral order, is highly amenable to social control, and presents a clear “folk devil” that is easily targeted for persecution (Cricher, 2009). According to this model of moral panics, theoretical and empirical focus should be directed not only at the elements and trajectory of the moral panic, but also at the moral content of claims about the offending group, for example, sex offenders whose designation as “predators” challenge traditional values of sexual propriety and the innocence of children (Garland, 2008; Jenkins, 1998; Quinn, Forsyth, & Mullen-Quinn, 2004).

Persistence of the Sex Crime Moral Panic

Regardless of the approach taken to study moral panics, many scholars assume the fleeting nature of these events and would characterize moral panics generally, and sex crime panics specifically, with an initial spike in media, expert, and policy-maker attention followed by a rapid decline in public discourse about the problem that originally drew attention (Jenkins, 1998; Sutherland, 1950). Some scholars, however, have begun to question this characterization. Perhaps the first to recognize the cyclical nature of sex crime panics, Jenkins (1998) acknowledged that, historically, sex crime panics have been temporary, waxing and waning over the last century. But the 1990s ushered in a new sex crime panic that, rather than peaking and dissipating, has instead plateaued; he argued that “child abuse has become part of our enduring cultural landscape” (Jenkins, 1998, p. 232). Jenkins (1998) offers multiple reasons for this persistence, including the evolution of the Internet and governmental interest in its regulation, the movement of women into the economic and political arenas, as well as several high-profile child abduction, rape, and murder cases that spawned knee-jerk legislation targeting the newly designated “sexual predator” and bearing the names of martyred children like Jacob, Megan and Adam (Valier, 2005). Thus, O’Hear (2008) concluded that we seem to be “in a state of perpetual panic, with an endless supply of new laws intended to control or punish sex offenders in new and harsher ways” (p. 69).

The perpetuation of the current sex crime panic can be understood within a context of consistent and sustained public and legislative attention over time (Hier, 2002, 2003; Siltaoja, 2013). To the degree to which moral panics are conceptualized as “temporary rupture[s] in the routine process of moral regulation occurring when regulation is perceived to be at a

point of failure” (Siltaoja, 2013, p. 64), logically, we can expect panics, or volatile episodes of attention, within long term processes of moral regulation (Hier, 2002). In this way, what we traditionally consider moral panics, or temporary spikes in media, public, or legislative attention, can occur within a perpetual panic framework. In the case of sex crime panic, we follow the lead of other scholars (Jenkins, 1998; O’Hear, 2008; Siltaoja, 2013) in suggesting that it is possible to witness episodic attention to sex offenders or offending that could be considered as an indicator of moral panic; however, since the 1990s, these episodes have occurred within a consistent and sustained level of public and legislative attention over time, or during a perpetual moral panic. Empirical evidence may suggest that the concept of “moral panic” is not a dichotomous concept of being either a temporary short-term surge in public, media, or legislative attention to an issue or a sustained long-term panic with heightened attention to an issue over time. Rather, traditional notions of “moral panics” can occur during a broader “perpetual panic” defined as a consistent state of public and legislative attention to an issue during processes of moral regulation in response to changes in offending patterns, technology, and criminogenic opportunities.

For example, few would dispute that increased media attention after the killing of Adam Walsh, Jacob Wetterling, Megan Kanka, and Jessica Lunsford—all child victims of sexually-related homicides—likely increased public interest and attention in sex offenders and offending and stimulated legislative reform (Hinds & Daly, 2000; Jenkins, 1998; Quinn, et al., 2004; Sample & Bray, 2003; Zgoba, 2004). Unfortunately, however, we know of no studies that directly measured the public’s interest in sex offending before these events occurred or directly thereafter. We do have evidence that media attention ebbed and flowed as these sensational cases occurred, but media attention is, at best, a proxy measure for public interest (Barak, 1994; Frie, 2008; Sample, 2001). As Barak (1994) explains, we must “move beyond one-dimensional interpretations that maintain either that crime news is a reflection of the interests, preferences, and news of political, class, and cultural elites, or that crime news is a reflection of the demands, interests, and needs of a homogenized mass audience” (p. 8). With this in mind, spikes in media attention do not necessarily indicate spikes in public interest that result in moral panics that produce policy reforms. Rather, perhaps public interest may not wane as media attention does, and the increased public interest generated by sensational cases may subside somewhat but remains higher than pre-sensational case levels. In this way, perhaps we have been in a state of perpetual panic

since learning of the deaths of Jacob Wetterling, Megan Kanka, and others in that public interest has spiked at times but has never returned to the same levels witnessed prior to these cases. The interest in sex offenders and offending did not subside with the passage of symbolic legislation, but rather it remained heightened over time and may never return to levels prior to the federal passage of the Wetterling, Kanka, or Walsh Acts.

The notion of a broader perpetual moral panic is not surprising when examined within the moral regulation model of moral panics. Accordingly, sex offenders serve a moral regulatory function and are cast as the “moral other,” existing outside of the moral boundaries of society and beyond redemption (Garland, 2001; Kohm, 2009). Thus, sex crime panics will emerge sporadically as “temporary crises in routine processes of moral regulation” (Hier, 2011, p. 524). Further, the social control apparatus that these panics necessitates – community registration and notification, chemical castration, civil commitment, among others – will create a kind of deviance amplification or “looping effect” whereby the social reaction to sex offenders interacts with and potentially reinforces their behavior (Hacking, 1999). For instance, to the degree to which public notification and residency restriction laws disrupt the social support networks on which sex offenders’ rely to help manage and control their behavior (Sampson & Laub, 1995), the enactment of these policies (as expressions of public reaction to sex offending) may exacerbate the behaviors that they are meant to suppress (Tewksbury, 2005; Tewksbury & Lees, 2006).

Lancaster (2011) further questions the notion of the ephemeral moral panic and suggests that sex crime panics are a “fixation of American Culture” (p. 1). To explain the perpetuation of sex crime panics, he suggests that the sexual predator has become a tool used by politicians of both parties to cultivate and maintain voters’ fear of crime in order to win elections, support an ever-expanding and increasingly vigilant criminal justice system, and reinforce the “punitive governance” of American citizens (Lancaster, 2011, p. 15). This characterization is also consistent with Walker’s (2010) analysis of sex offender policy in a “risk society” (Beck, 1992) wherein it is suggested that our modern era of diffuse risks and accompanying anxiety has created the need to identify and manage perceptions of risk, like crime. Further, consistent with Feeley and Simon’s (1992) conceptualization of the “new penology,” sex offenders as a class represent a stable, aggregate risk that motivated the wave of registration and notification laws, but that, according to the rhetoric regarding sex offender recidivism, would never be

eliminated (Logan, 2009). As a result, sex offenders have become increasingly subject to state legislation, with an anxious public willing to forego local social control for broader government surveillance and control.

Thus, though early models of moral panics suggest that they are by their very nature fleeting, subsiding as quickly as they erupt, it seems that some moral panics, like sex crime panics, are more enduring than others. There may be a perpetual sex crime panic, or consistent and sustained levels of public and legislative attention, occurring based on the pervasiveness of new media and technology (Fox, 2012), the perception of sex offenders as “uniquely dangerous” (O’Hear, 2008, p. 71), political support and dissemination of criminal justice policies meant to govern through fear (Lancaster, 2011), or the perceived failure of state moral regulation processes to punish and manage sex offenders (Hier, 2011; Hier, Lett, Walby, & Smith, 2011). This perpetuation may have been missed in prior sex offender moral panic studies that used media attention as a proxy measure for public interest and examined media data for only a few years before and after the passage of law without adjusting for the influence of time on public interest. Additionally, the way public attention may accumulate with every traditional short-term moral panic leaving a consistent state of heightened awareness toward sex offenders and offending may have added to this unnoticed perpetual cycle since the 1990s.

The Role of the Public

Moral panic studies have been criticized for failing to consider the role of the public in instigating or perpetuating them (Burststein, 2003; Critcher, 2008; McRobbie & Thornton, 1995). Generally, it had been assumed that the public are passive recipients of panic messages from the media and are easily persuaded into the disproportionality of the threat (Cohen, 1972/2002; Hall, Critcher, Jefferson, Clarke, & Roberts, 1978). Scholars have noted the ways in which media accounts influence public interest and/or knowledge of sex offenders and offending (Griffin & Miller, 2008; Sample & Kadleck, 2008). The media can offer accounts of socially-constructed solutions to socially-constructed social problems, which citizens then fear (Griffin & Miller, 2008). Citizens’ fear of an increasing sex offender problem was documented in Illinois as legislators explained that changes to sex offender laws were in response to calls from citizens who had read or heard about sexually-related homicides in print or televised media. Though several studies have examined public opinions about sex offenders in general that may result from media driven “crime control theater” (see

Kernsmith, Craun, & Foster, 2009; Levenson et al., 2007), the direct role of the public in sustaining sex crime panics has been largely overlooked (Critchler, 2008). However, in a risk society characterized by anxiety related to a range of diffuse threats, the public might be particularly vulnerable to political manipulation and promotion of punitive policies therefore making it difficult to ascertain where public interest ends and political attention begins (Walker, 2010). Thus, it is important to accurately measure public interest as something unique from and independent of political attention (Key, 1961; Kingdon, 1984).

Ungar (2001) discusses the need for more theoretically and empirically valid measures of public opinion, including the use of Internet searches, which are unmediated and can capture waves of public interest in real time. Thus, another development that may facilitate the perpetuation of sex crime panics is the ever-increasing use of the Internet as a forum for public opinion, especially since all states maintain online sex offender registries (see Government Accountability Office [GAO], 2013), as well as the 24 hours news cycle found on cable television news channels. Our use of Google Trends data, generated directly by citizens' Internet searches for information, is a move toward more directly measuring the public's increasing, decreasing, or sustained interest in sex crimes, at least among those people who access the Internet for information, which is a constantly increasing number in the United States and globally (Internet Live Stats, 2014).

Conceptually, public opinion of a social problem can be distinguished as "weak" in which citizens are only charged with forming an opinion, and "strong" in which citizens collaborate and deliberate to form opinions and develop potential solutions for social problems (Fraser, 1993). A "weak" public offers opinion that is largely uninformed and uninfluenced by the thoughts of others. When an issue is so urgent, as with sexual victimization, people's fear and intensity of interest become a substitute for sound public judgment, political actors prey on that anxiety, and public views become stable and firm (Yankelovich, 1991). In this environment, we would expect that public sentiment on sex offenders and offending remains insulated from the ideas of others and does not evolve over time; accordingly, public attention toward sex offenders and the policies resulting from such would remain somewhat stable over time (Baumgartner & Jones, 1993; O'Hear, 2008).

In contrast, a "strong" public offers public judgment rather than merely opinion (Yankelovich, 1991). Public judgment describes public opinion that results when "people engaged in an issue, considered

it from all sides, understood the choices it leads to, and accepted the consequences of the choices they make" (Yankelovich, 1991, p. 6). Public judgment is thus more thoughtful and more oriented toward considering the normative and ethical issues related to particular social problems (Yankelovich, 1991). With such a "strong" public, public attention as well as opinion toward social problems should vary as people engage in knowledge building activities. As people become more engaged in information about a particular social problem, their attention toward the problem should increase in order to form "public judgment." Thus, the stability or change in public interest on sex offending over time can be interpreted within a public judgment framework, with stability in interest indicating a "weak" public that holds only opinions on a topic, and change indicating a "strong" public, or one attempting to develop public judgment on an issue. It may be the weakness of the public, and their lack of public judgment, that can explain stability in public interest of a topic over time and perpetuate a moral panic. In contrast, public judgment would suggest considerable variability in public interest over time as citizens move beyond forming or reaffirming opinion toward a knowledge base that can be used to make decisions about policy effectiveness, efficiency, and change (Yankelovich, 1991).

There are several additional reasons to believe that public attention and opinion influence the initiation, duration, and intensity of sex crime panics. First, the content of sex crime panics is by its very nature emotionally evocative, easily capable of fueling public anxiety and outrage (Fox, 2012; Garland, 2000, 2008). Second, the implementation of sex crime policy has, since the 1990s, increasingly relied on the public as agents of social control. With the passage of community notification statutes, the public now participates in and is, in some ways, held responsible for the policing of sex offenders; thus, though blame is individualized to the sex offenders, risk management is collectivized to the community (Hier, 2008; Jenkins, 1998; Levi, 2000; Zgoba, 2004). The development of online registries to facilitate this process, and the ease with which people can find and access information on sex offenders, may well be a key feature in the persistence of public interest in these offenders (Kernsmith et al., 2009; O'Hear, 2008).

It is logical to assume that the expansion of sex offender risk management to private citizens likely perpetuates their interest in sex offenders and offending (Sample, 2001). Moreover, we now have a legal structure in some states which demands that all citizens stay perpetually engaged with sex offender information. In nearly all states, mandatory reporting

laws require select citizens—such as police, social workers, and teachers—to bring child abuse suspicions to the attention of designated governmental agencies (Lytle, Radatz, & Sample, 2014). Additionally, according to the U.S. government's Child Welfare Information Gateway (ChildWelfare.gov, 2013),

[i]n approximately 18 States and Puerto Rico, any person who suspects child abuse or neglect is required to report. Of these 18 States, 16 States and Puerto Rico specify certain professionals who must report but also require all persons to report suspected abuse or neglect, regardless of profession.^[2] New Jersey and Wyoming require all persons to report without specifying any professions.^[3] (p. 2; emphasis and notes added)

In this way, structural forces, in terms of law, may not only encourage, but in some cases mandate, public attention to sex offenders and their behaviors in the community and thus endorse a model of perpetual moral panic.

Historically we have viewed sex crime panics as cyclical but temporary, but the sex crime panic that has emerged since the 1990s shows no signs of abating. It may be a broader “perpetual panic” characterized by consistent and sustained levels of public interest in sex offenders and offending over time facilitated by new technology like the Internet, which works as a tool that both enables and surveils offenders, an alliance with the victims’ rights movement, and a more punitive political and social climate (Lancaster, 2011, O’Hear, 2008). This is not to say that increased public attention, or spikes in media or public interest, does not occur in which attention is directed at a sensational crime or legislation proposed. Rather, we suggest that sustained attention to sex offending generally may create a context in which episodic sex crime panics are more easily generated or legislative remedies are more easily and consistently proposed, either as new policies or revisions to existing laws (Lytle, 2013). After all, the one thing the plethora of sex offender laws passed since the 1990s has in common is the desire for more surveillance and control over sex offenders’ behaviors in the community (e.g. registration, notification, castration, residency restrictions, electronic monitoring, GPS tracking, lifetime supervision, longer prison sentences, and other restrictions). Can we point to an episodic moral panic that stimulated each of the legislative reforms we have witnessed in the last 20 years? Instead, it may be that the episodic moral panics, resulting from

child homicides in the late 1980s and early 1990s, increased public interest in sex offenders and offending, but unlike other moral panics, this attention has never waned. Public attention and interest in sex offenders and offending has remained stable over time as the 24 hour news cycle has been embraced by cable news programming, the Internet has provided a readily accessible venue through which citizens can search for news, and sex offender policy reform has advanced into the 21st century.

We seek to assess the stability of the current sex crime panic by examining the role that public attention plays in perpetuating it. Based on our review of the theoretical and empirical evidence related to sex crime panics, we expect that public interest in sex offenders will remain fairly stable over time, thus resembling a “perpetual panic” (O’Hear, 2008). The legal remedies offered for the sex offender problem and childhood sexual victimization, such as public notification and mandatory reporting laws, insist that the public remain constantly watchful, paying close attention to sex offenders and their behaviors, thus stabilizing public interest over time. Accordingly, we address two related research questions pertaining to the presence of a perpetual sex offender panic:

1. Are Google searches of “sex offenders” stable over time (compared to searches of “crime” and “terrorism”)?
2. Do Google searches of “sex offenders” change following the passage of the Adam Walsh Act (AWA) in 2006, a largely symbolic act meant to standardize existing registration procedures across states and demonstrate policy-makers’ desires to address public concern and assuage public fear?

Although the requirements of AWA, beyond those articulated in the Wetterling Act of 1994 and Megan’s Law in 1996, are far from being fully implemented in all 50 states, we have chosen to use the passage of the AWA in 2006 as a potential interruption in public interest for a variety of reasons found within policy sciences and criminological literature. As Oliver and Marion (2008) remind us, Gusfield (1963) suggested that law may have two purposes, one instrumental (meant to change behaviors) and the other symbolic (meant to address public concern). In the presence of valence or emotive issues, such as crime, where there is a convergence of public and political opinion against it, symbolic legislation is likely to arise and intended to peak public interest by addressing citizens’ fears

(Oliver & Marion, 2008). Because sex offender registration and notification were federally mandated in 1994 and 1996 respectively, we feel that the passage of the AWA in 2006 was largely symbolic in nature in that it simply revised already existing state and federal legislation by adding people and behavior to existing law and enhancing duration terms. To this end, the debate surrounding the content of the AWA and its passage should have increased public attention to sex offenders and offending (Baumgartner & Jones, 1993; Edelman, 1964; Lippman, 2010; Simon, 2007).

When discussing the process of law making, Edelman (1964) suggests that political action that addresses behaviors that are removed from most individuals' personal experiences and for which there is general agreement that those behaviors need to be eradicated from society certainly have symbolic functions meant to draw public attention to the political action. These political actions are intended to be emotional in their impact and are seen as responses to citizens' calls for "conformity to promote social harmony, [serving to relieve] psychological tensions" (Edelman, 1964, p. 8). In this way, it is not the implementation of law that assuages public fear, for little public attention is given to policy implementation after its passage (Hays, 1985; Pulzl & Treib, 2007; Vigoda, 2002; Yanow, 1987). Rather, it is the introduction and passage of legislation that demonstrates public officials are responding to public calls for "social harmony" (Edelman, 1964, p. 8) and are responsive to public psychological stress over the lack of moral regulation (Grattet & Jenness, 2008; Gusfield, 1963; Howard 1999; Oliver & Marion, 2008). Thus, within the realm of the purposes of law, the introduction and passage of the Adam Walsh Act should serve to increase public interest in the behaviors for which it was intended to address, irrespective of its full or partial implementation (Pulzl & Treib, 2007) because that is what it was intended to do.

Given the rapid growth of the Internet as one of the primary tools to disseminate information about registered sex offenders (GAO, 2013), we feel it particularly novel to utilize Internet search volume data as an indicator of public interest in sex offenders. Internet searches can be used not only as a direct measure of public interest in an issue but also, as other scholars have recently speculated, as useful measures of issue salience for certain social problems (Mellon, 2011; Scheitle, 2011; Ungar, 2001). The greater the number of times citizens search for a specific topic, the more important that topic is perceived to be in the lives of those conducting the searches. Also, recent analyses with Google Trends data suggest that, despite some limitations, they can

be valuable proxies for sensitive or stigmatized issues, like child abuse and crime more generally (Stephens-Davidowitz, 2013a, 2013b). Google searches provide citizens the privacy to seek out sex offender information without disclosing their interest in such to others, and information found on the Internet provides unfiltered information that citizens will find easier to understand or read.

Methodology

Data

The primary data for this study came from Google Trends (www.google.com/trends), a tool that analyzes Google web searches to compute the number of searches for a particular term relative to the total number of Google searches done over time. The search volume is expressed in values from 0 to 100 over time with 100 set to the highest volume of searches in that time period. The primary search terms we specified were "sex offender," "sex offense," "sex crime," and "sex offender registry." We also included searches of "crime" and "terrorism," comparable phenomena that we suspect are subject to similar historical influences ("The Jon Benet Ramsey Case", 2006). The context of interest in sex offending may be couched within a more general interest in crime information, so Google Trends data using "crime" as a search word offers some measure of the interest in crime overall. For further search interest context, we include data derived from the term "terrorism," as this is also a crime type that has garnered considerable legislative and public interest in light of sensational cases and may exhibit similar tendencies toward a perpetual panic (Lancaster, 2011; Swift, 2013). We analyzed weekly U.S. search volume from 2004-2012 with a total of 470 time points. Our intervention variable was the passage of the Adam Walsh Act in July 2006. The AWA was the first national law passed to control sex offenders' behaviors since the mid-1990s. It contained numerous provisions, including the expansion of the number of sex offenses eligible for registration, the creation of the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART Office) within the Department of Justice, and the standardization of sex offender information available to the public. States were required to comply within three years. As passage of the Act was debated in Congress and subsequently covered in the media (see Hernandez, 2006; Rozas, 2007), it should have naturally affected levels of public attention to sex offenders⁴. Thus, a dichotomous variable was created to represent passage of the Act and was coded as "0" for all

weeks prior to July 2006 and “1” for weeks during and after July 2006.

Given the relatively recent availability, and hence limited validation of the Google Trends data, we supplemented these data with another indicator of public interest in sex offenders over the same time period, specifically a content analysis of sex offender-related news stories from a major national news outlet. For the national news share that sex offenders have drawn over time, we used LexisNexis and searched keywords sex* and (crime* or offend*) in *USA Today*. *USA Today* remains number one in daily print circulation in the United States, with a print audience of approximately 3.1 million daily readers (USA Today.com, n.d.). In 1995, USA Today.com launched, making the paper available via the Internet. In June 2013, USA Today.com had nearly 24.3 million unique visitors and 281 million page views. This news outlet has sufficient readership and availability to allow us to explore national media attention toward sex offenders and offending. Given the general lack of national newspapers in the United States, this paper would likely cover all news stories about sex offenders or offending that would draw a national audience. More newsworthy sex offender stories would likely be found in localized newspapers like the *New York Times* or the *Chicago Tribune*, but often these stories would not draw national public interest unless the crimes were rare, sensational, or particularly heinous. Our key word search of *USA Today* produced a total number of articles per year that mentioned sex offenders, sex crimes, or sex offending. We could then surmise the number of stories of sex offenders that drew national media attention for the years prior to and after the passage of the AWA. As noted above, given the importance of the media for social problem construction, moral panics, and public opinion, content analysis data give us another measure of the context in which public interest in sex offending occurs.

A longitudinal multilevel model was used to assess whether or not search volumes for sex offenders, terrorism, and general crime varied significantly over time. The inclusion of a random error term in multilevel models makes these models robust to the independence of errors assumption, which complicates traditional regression models using longitudinal data (Hoffman & Rovine, 2007; Raudenbush & Bryk, 2002; Singer & Willett, 2003). Therefore, longitudinal multilevel models can be especially useful to assess variation in some phenomenon over time (e.g., Lytle, 2013; Steele, 2008).

It seems worth noting here that longitudinal multilevel models, although conceptually similar in

many ways, differ from cross-sectional multilevel models methodologically. Namely, whereas cross-sectional multilevel models nest individuals or small clusters of people within larger groups based on theory, longitudinal multilevel models nest time within individuals or groups primarily to address dependency of errors over time (i.e., temporal autocorrelation; Hoffman & Rovine, 2007; Singer & Willett, 2003). Consequently, longitudinal multilevel models may be employed to control for temporal autocorrelation present in within-person fluctuations over time without explicit theoretical explanations for the effect of time on some outcome (Hoffman, 2007).

In the current study, we nested weeks within years. Specifically, the higher level of analysis (level 2) analyzed variation across years while the lower level analysis (level 1) represents variation in search volume across weeks that were situated within the same year (within-year variation). Whereas traditional time-series analyses (e.g., ARIMA) may account for temporal autocorrelation across weeks, our longitudinal analysis will allow us to both address autocorrelation and partition error due to variation between years and over weeks within years. As a result, we will be able to distinguish between the degree to which variation in search volumes were due to changes over brief or longer periods of time. As time (i.e., weeks) was nested within time (i.e., years), errors autocorrelated with changes across years may still affect the validity and utility of our level 2 analysis. Therefore, an autoregressive alternate error covariance structure was applied in this study (Singer & Willett, 2003). This error covariance structure addresses the autocorrelated errors due to time remaining at level 2 in our analysis.

Further, due to the limited research investigating variation in Google search volumes (however, for an example, see Song, Song, An, Hayman, & Woo, 2014), the current analysis was intended specifically to determine whether or not variation was present and changed over time. Consequently, no explanatory or control variables beyond time were included in this analysis. The first step, then, was to run an unconditional model, which allowed us to answer our research questions by providing the proportion of variability in search volume across and within years. This analysis also included a test indicating whether or not the proportion of variability in time between revisions across years was statistically significant.

Once unconditional models confirmed the need for multilevel analysis, time was inserted and transformed to determine the best specification for time in the model (Hoffman & Rovine, 2007; Singer & Willett, 2003). We began by including a linear time slope in the level 2 analysis (fixed linear time model). If the model with the fixed (i.e., Level 2)

linear time slope has a statistically significantly lower deviance statistic than the unconditional model, the process continues by adding a linear time slope to the Level 1 analysis (i.e., random linear time model). If the random linear time effect reported a significantly lower deviance statistic than the fixed linear time model, this process is replicated using a quadratic time effect, first at Level 2 (fixed quadratic, random linear time model) then at Level 1 (random quadratic time model). This process was carried out for each keyword separately, leading to three separate multilevel models.

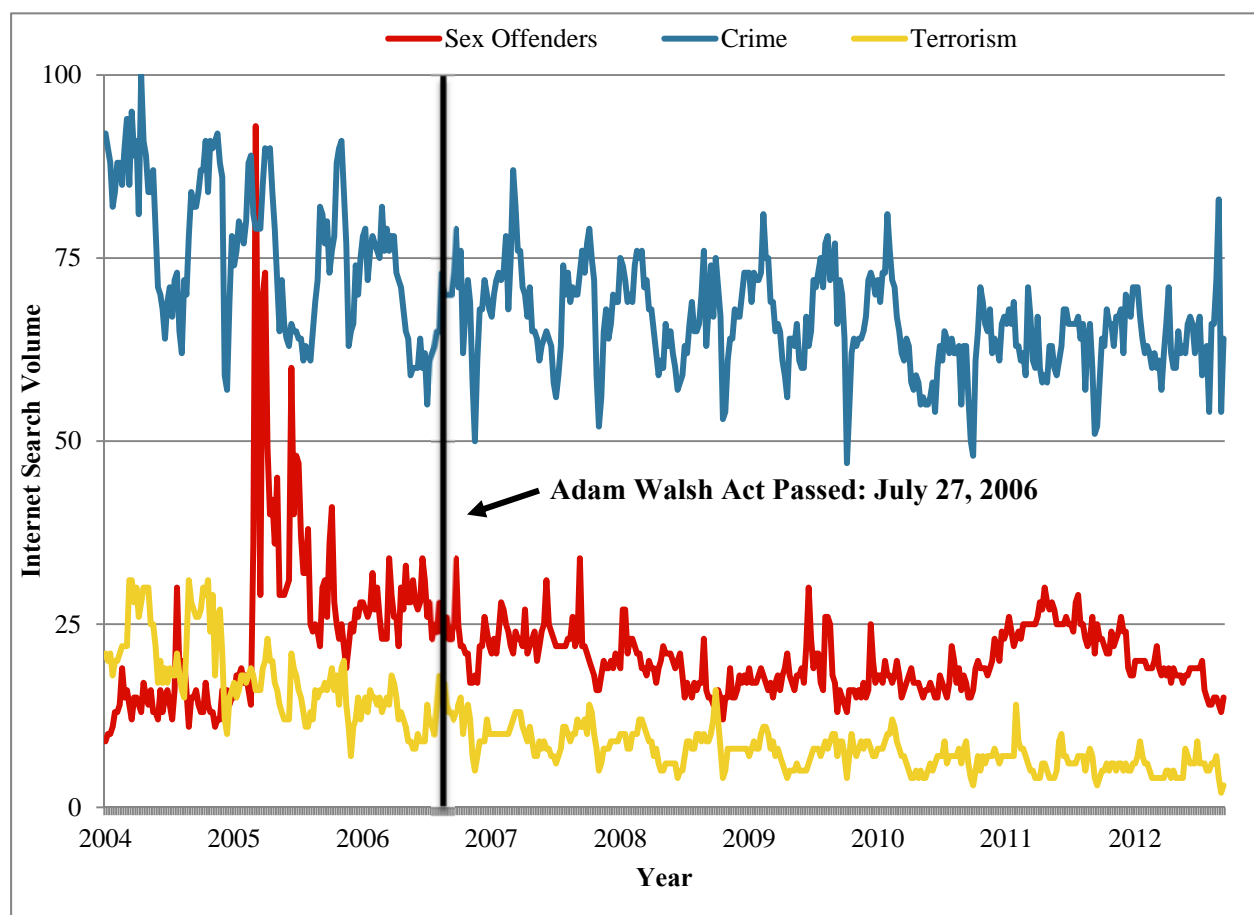
Finally, to assess the difference in the effect of time on search volume for sex offenders before and after AWA's date of passage, we calculated the effect

of time before and after July 2006. Using this technique, we can determine the significance of time in predicting search volume of sex offending before and after the date in which AWA was adopted formally by Congress.

Results

As shown in Figure 1, relative to all Google searches, Google searches of the term "sex offender" generally increased before reaching a peak in March of 2005. The search volume over years, however, appears to be stable with a very gradual decline since that time.

Figure 1. Google Searches Over Time, 2004 - 2012



Source: Google Trends (www.google.com/trends)

Interestingly, however, the unconditional multilevel models indicate significant variation in search volumes for each keyword (see Table 1). Specifically, in the cases of “sex offender” and “crime” keyword searches, a majority of the variation in these search volumes occurred within years (Sex offense = 60%; Crime = 72%), meaning that shifts or spikes in public interest occur within a single year⁵.

That is, without controlling for the effect of time, most of the variation in search volume for these keywords was attributable to weekly change, thus reaffirming the episodic nature of public interest as new sex offending cases come to light. This finding was not replicated with “terrorism,” however, of which across-year variation was the largest contributor to search volume variation (between year

= 74%). Unlike searches for crime and sex offender keywords, searches for information on terrorism changed from one year to the next. At least initially, these findings suggest that, for sex offenders and crime in general, variation in public attention to these keywords may be due more to factors situated within years. Intraclass correlation coefficients primarily describe the distribution of variation in search volume across and within years. More importantly at this point in our analysis, however, the significant intraclass correlation coefficients reported from these unconditional models justify continuing with our analysis of the relationship between time and search volume reviewed in the previous section (Hoffman & Rovine, 2007; Singer & Willett, 2003).

Table 1. Unconditional HLM model testing variation in panic-related crime search volumes

Random Effect	Standard Deviation	Variance Component	% of Total Variance	df	χ^2	p
Sex Offenses						
Level 2, rij	12.64	24.02	40%	2	486.74	<.001
Level 1, eij	3.56	35.78	60%			
Crime						
Level 2, rij	15.31	23.31	28%	2	629.80	<.001
Level 1, eij	9.25	59.63	72%			
Terrorism						
Level 2, rij	13.93	28.31	74%	2	1092.37	<0.001
Level 1, eij	1.36	9.78	26%			

Note. MLMs were run for each keyword separately. Percent contributions to variance in search volumes described in unconditional models were calculated by dividing the variance component for each level of analysis by the total variance explained by the model.

Model Specification:

Level 2 Model (Across Years):

$$Y_{ij} = \pi_{0j} + r_{ij}$$

Level 1 Model (Within Years):

$$\pi_{0j} = \beta_{00} + e_{ij}$$

To further investigate the relationship that time has on traditionally panic-related crime searches, we add time as a predictor to these models. By specifying the effect of time in these models, we are better able to understand the nature of time's effect on sex offender search volumes. In this analysis, search volumes for the “sex offender” keyword did not change over time. This is evident in that the models for this keyword were not significant when

time effects were included in the model ($\chi^2_{(1)} = 1.70$, *ns*; see Table 2). In other words, despite spikes in Internet searches by week, public interest did not significantly vary from one year to the next from 2004 through 2012. In other words, the level of public interest in sex offenders in 2004, at least as measured by Internet searches, remained reasonably constant through 2012.

However, analyses of the other two keywords, “crime” and “terrorism” showed significant decreases across years while controlling for within year variation in search volumes by week. Over time, crime and terrorism searches each decreased by less than a single search per year. Although these decreases were statistically significant, the coefficients were substantively small. This was not found, however, for “sex offender” searches, suggesting that there were not significant increases or

decreases in search volume from one year to the next. Further, the changes in search volumes within years for “crime” and “terrorism” were even smaller than those across years (i.e., less than .001 searches each week). These findings indicate that, although significant variation in search volumes was present at both levels of analysis (weeks and years), time was only a significant contributor to the level 2 analysis for “crime” and “terrorism” searches—not for “sex offenders” searches.

Table 2. The Effect of Time on Crime Panic-Related Google Search Volumes

Sex Offenses				
Level 2 (Across Years): Fixed Linear Time	β	SE	z	p
Sex Offenses	-0.013	0.010	-1.30	ns
Crime	-0.038	0.009	-4.12	<0.001
Terrorism	-0.032	0.005	-5.96	<0.001
Level 1 (Within Years): Random Linear Time	Estimate	SE	95% Confidence Interval	
Sex Offenses ¹	n/a	n/a	n/a	n/a
Crime	<0.001	<0.001	0.001	5172.97
Terrorism	<0.001	<0.001	<0.001	<0.001
Mixed Model Statistics	χ^2	df	p	
Sex Offenses	1.70	1	ns	
Crime	16.97	1	<0.001	
Terrorism	35.56	1	<0.001	

¹Random linear effects for the SO search term were not tested as the initial linear time model was not significant.

Note. MLMs were run for each keyword separately. Quadratic time terms were included in supplemental analyses. These terms were not statistically significant and, therefore, have not been included in this paper.

Model Specification:

Level 2 Model (Across Years):

$$Y_{ij} = \pi_{0j} + \pi_{1j}(\text{Week}_{ij}) + r_{ij}$$

Level 1 Model (Within Years):

$$\pi_{0j} = \beta_{00} + \beta_{01}(\text{Year}) + e_{ij}$$

$$\pi_{1j} = \beta_{10}$$

Table 3. Piecewise Slopes Comparing the Effect of Time on Sex Offense Search Volume Before and After the Passage of the Adam Walsh Act (July, 2006)

Level 2 (Across Years): Fixed Linear Time	β	<i>SE</i>	<i>z</i>	<i>p</i>
Linear Time	0.112	0.062	1.78	<i>ns</i>
Prior to AWA	-4.721	5.250	-0.90	<i>ns</i>
After AWA	-0.123	0.064	-2.04	0.041
Constant	17.189	4.433	3.88	<0.001
Level 1 (Within Years): Random Linear Time	Estimate	<i>SE</i>	95% Confidence Interval	
<i>r_{ij}</i>	14.827	11.776	3.13	70.32
<i>e_{ij}</i>	36.406	3.806	29.66	44.68
Mixed Model Statistics	χ^2	<i>df</i>	<i>p</i>	
	6.33	3	<i>ns</i>	

Note. Random effects of time before and after AWA were included in supplemental analyses. These terms were not statistically significant and, therefore, have not been included in this paper.

Finally, we find no evidence for change in the search volume of the “sex offender” keyword following the passage of AWA in July 2006. Once the adoption date of AWA was included in the model, the model is no longer statistically significant ($\chi^2_{(3)} = 6.33$, *ns*; see Table 3). More specifically, this table indicates that search volume for the “sex offender” keyword did not significantly change over time either prior to or following the date of passage for AWA⁶.

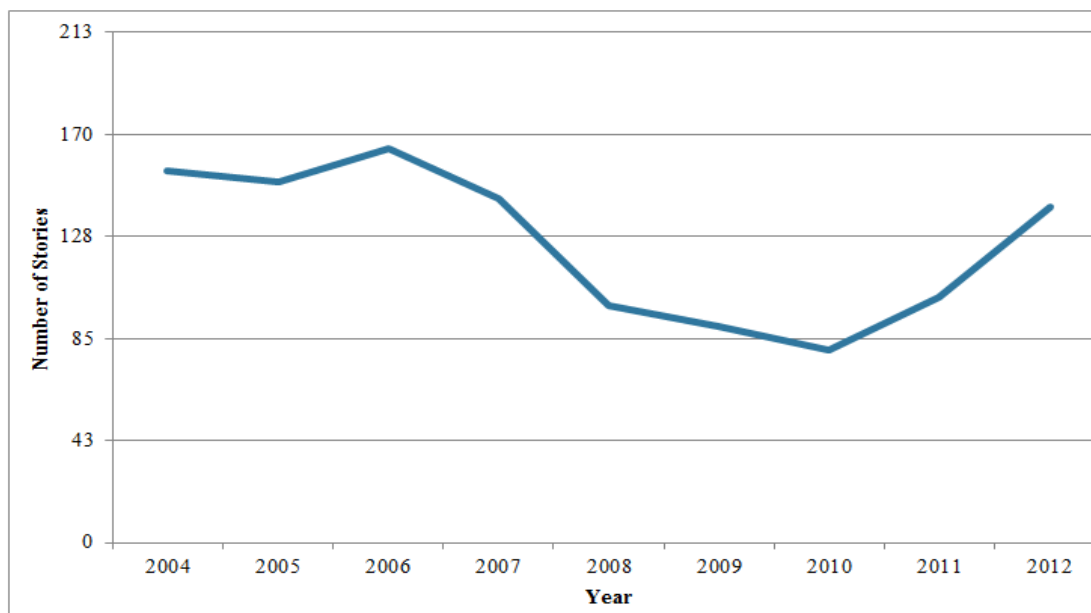
Perhaps the stagnation of public interest is due to a similar stability in media coverage. We examined this possibility, and, as can be seen in Figure 2, media coverage of sex offender stories appears to have varied more over time, in contrast to public interest measured by Google Trends.

After a slight increase leading up to 2006, the year of passage of the Adam Walsh Act, the number of news stories has declined, with a recent increase starting in 2010. Interestingly, our qualitative content analysis of these news stories, conducted on a 20% random sample of stories each year, also reveals that stories are typically editorial pieces about the passage and/or efficacy of sex offender laws, rather than news articles about specific sensationalized cases. The overwhelming majority of stories (70%) were of this editorial type, with only about 20% of stories relating information on specific sex crimes. Five-percent of news stories over this period were dedicated to informing citizens on general crime trend information, in which rape statistics were mentioned, and the other 5% included miscellaneous mentions of

sex offenders as topics for movies and television specials. These findings may result from our chosen news outlet of *USA Today*, and the need to appeal to a national audience. It should also be noted that most of the increase in news stories between 2010 and 2012 were also editorializing or investigating states’ compliance with the Adam Walsh Act, the increases in sex offenders placed on the registry, or the effects of residency restriction laws on offenders. Thus, the findings of stable public interest in sex offenders cannot be based solely on media attention to the topic, which is more variable over time.

Discussion

In this study, we analyzed national trends in public interest concerning sex offenders, specifically to assess its stability and ascertain whether a perpetual sex crime panic exists, as measured by consistent public interest over time. By examining Google searches for “sex offenders” over time, we found that such interest is fairly stable from 2004 through 2012. This is in contrast to Google searches for “crime” and “terrorism” which were used as relative comparisons to interest in “sex offenders” and have significantly decreased over the same eight-year period, albeit only slightly. This is not to say that weekly spikes in public interest in sex offending did not occur or that traditional moral panics do not exist. The spike in public interest visually observed in 2005 of Figure 1 would suggest that moral panics can occur within a stable and consistent level

Figure 2. Number of “Sex Offender” Stories in *USA Today*

of public interest over time. For instance, the death of Jessica Lunsford in a sexually-related homicide in 2005 may well have created a sex crime moral panic, as evidenced by the proposed Jessica Lunsford Act at the federal level, and the passage of similar legislation in Florida and states following thereafter. However, the spike in public interest in 2005 did not correspond to increases in media attention, did not result in federal passage of new legislation, and occurred within the same year that the Adam Walsh Act was being written and introduced to the House of Representatives for passage (December, 2005) so it is difficult to discern what amount of this public interest spike can be attributed to the Lunsford case alone, as opposed to other co-occurring phenomena (Wollman, 2007; Yang, 2007). Nevertheless, we believe this spike does not refute the notion of a perpetual panic over time, represented by stable public interest over years, as evidenced statistically and suggested conceptually.

Spikes in media, public, and legislative attention of sex offending that quickly subside can exist within a perpetual panic framework, if we embrace the notion that moral panics work as tools to morally regulate behavior when people perceive prior regulation has failed. Although the Internet in its current form did not exist when the Wetterling Act was passed, few would suggest that public, media, and legislative attention to sex offenders today is back to pre-Wetterling Act levels (Jenkins, 1998). Rather, public attention to sex offending was

heightened with the passage of the Wetterling Act and the death of Megan Kanka and has remained so over time. In this way, the perpetual panic of sex crimes to which we refer has been reaffirmed by the fact that regardless of weekly spikes in public attention, public interest in sex offenders and offending has remained stable over years, as seen in Google Trends data from 2004 – 2012, and was not witnessed in searches for terrorism or crime more generally (although given the size of the coefficients for these terms, one could argue for some stability in interest in these terms as well).

Thus our study makes several important contributions to theory and research relevant to public interest in sex offenders and sex offender policy, as well as to the larger body of literature relevant to moral panics. First, our findings lend support to the notion of a “weak” public, one whose interest in and opinions about sex offenders and sex offender policy are largely divorced from reality or empirical assessments of such issues. A weak public is prone to have shallow and inconsistent opinions and be particularly vulnerable to the emotional and punitive discourse surrounding sex offender policy (Yankelovich, 1991). A sex crime panic may be more readily perpetuated in the context of a weak public and a risk society wherein political actors engage in a process of moral regulation, making moral claims and stoking fears about sex offenders, a managed threat (Walker, 2010).

Sex offenders of one form or another have, for centuries, been constructed as the ultimate “folk devil,” a functional and easily identifiable representation of societal fear, particularly for its children. However, in today’s social and political climate, the moralization, propagation and diffusion of risk related to sex offenders have become more strategic. Consistent with the notion of “crime control theaters” (Griffin & Miller, 2008), politicians, eager for a threat they can predict and control, likely utilize media outlets to lobby for increasingly punitive sex offender policies to protect innocent children from becoming potential victims. As seen in Figure 2, there is some volatility in media accounts of sex offenders and offending in *USA Today* over time. These policies simultaneously misrepresent yet exacerbate the threat posed by sex offenders, while also distracting from more mundane or unknown dangers (Lynch, 2002; Quinn, et al., 2004). This process thus supports an ever-widening social control apparatus that gives the government increasing power to construct, target, and manage risk (Walker, 2010). In a relevant example, many jurisdictions are extending registries to other types for crimes, from dangerous dogs, to gun crime, to methamphetamine offender registries (Craun, Kernsmith, & Butler, 2011). In this way, moral panics are not exceptional; rather, they are now “properly conceptualized as routine forms of social action that contribute to the affirmation and transformation of everyday customs, rituals, conventions, and routines” (Hier, 2011, p. 528). In the case of sex offending, legal response to sex crime panics have routinized public interest in sex offending as a way to expand the surveillance of suspicious people and behaviors. Information delivered about sex offenders through public notification of sex offender registries provides citizens with a ready-made list of whom to watch and what sexual behaviors we have legally labeled as deviant or morally wrong. Thus, it seems that the stable public interest in sex offenders seen in our findings is the result of a successful campaign in which the government, through increasing political and legislative attention to the issue, has constructed a perpetual panic environment, one so successful that, even in the face of declining media attention, public interest in sex offenders remains stable.

Altering political interest and opinion regarding the topic of sex offenders and offending presents a different set of challenges. As indicated above, politicians do not legislate in a vacuum and are thus vulnerable to the climate of public opinion regarding a particular policy (Key, 1961). If that climate is guided by irrational or inaccurate information, perhaps so too is the content of public policy. With sex offender policy, in particular, it seems that public

opinion, influenced by fury and fear, has dictated that the outer limits of appropriate policy responses to the problem of sex offenders be ever-expansive, thus giving politicians great latitude in enacting increasingly restrictive sex offender policies that are difficult to rein in (Logan, 2009; Roberts & Stalans, 2000).

A “strong” public is needed to critically engage with the social problem of sex offending and sex offender policy rather than one that remains enveloped in “crime control theater.” A strong public is capable of understanding its nuances, familiar with the empirical evidence about its unintended consequences and myths, and is thus less vulnerable to political manipulation. The media have a significant role to play in this process, as they are influential in shaping public opinion and, in turn, public policy (Galeste, Fradella, & Vogel, 2012; Sample & Kadleck, 2006). Because accurate information about an issue can and does change attitudes about it, the media should be compelled to present factual information about sex offenses and offenders in an effort to elicit more accurate perceptions of sex offenders (Cochran & Chamlin, 2005; Proctor, Badzinski, & Johnson, 2002). Factual information about sex offending, however, may likely not be considered sensational and/or newsworthy. Given that all 50 states and U.S. territories have now been mandated to create public sex offender registry websites, perhaps the place to offer information about sex offending that comports to empirical evidence would be on the Federal and states’ registration websites.

Related to this point, this study demonstrates how public interest and media and political attention are distinct. Though both are integral to contemporary moral panics, there is a need for methodological specificity in sorting out public versus media and political interest. Given the central role of the Internet in the public cataloging and policing of sex offenders, we feel that the data source used here, Google Trends, was especially relevant as a direct measure of public interest in sex offenders. Though more studies are needed to assess the reliability and validity of these data, they offer many benefits in terms of providing unmediated, up-to-date measures of public interest in certain topics, including crime (Scheitle, 2011; Stephens-Davidowitz, 2013b). As the topic of sex offenders and offending relates to citizens’ victimizations and desire for information about their perpetrators, the privacy provided by Internet searches for information, as opposed to personal forms of inquiry to police agents, protect the anonymity victims may wish to keep. In this way, Google Trends data are an unobtrusive method that may fill important gaps in

our understanding of crime and crime reporting, thus shedding light on that “dark figure” of unreported crime.

Of course, there are limitations to this research that should be mentioned. Primarily, Google Trends data are only available as far back as 2004, thus precluding us from examining earlier trends in public interest in sex offenders. Since the first piece of federal sex offender legislation was passed in 1994 and initiated the waves of sex offender legislation that followed, it would have been useful to examine public and political interest in the issue leading up to and after that law. Unfortunately, there are neither direct measures (e.g., survey data) of public interest in sex offenders and offending prior to 1994 to establish a baseline of public attention nor are there Google Trends data prior to 2004 that can be used as a direct measure of public interest. However, our use of Google Trends allows us to establish a baseline of interest in 2004 that can be used in future analyses to determine the stability or variation in public interest beyond 2012 and provides a novel opportunity to examine public opinion with a data source that has been increasingly democratized over time. Further, because we are concerned with the stability of interest in sex offenders, our examination of recent trends and the discovery that there is such stability supports the notion of a perpetual panic, long after initial spikes of interest occur.

Conclusion

Crime control policies, specifically sex offender laws, have often been attributed to moral panics in which exaggerated media and public attention drive policy makers to enact legislation to address perceived problematic behaviors (Ben-Yehuda, 1990; Cohen, 1972/2002; Spector & Kitsuse, 1977). Once legislation is enacted, media and public interest in a defined social problem is assumed to wane (Rochefort & Cobb, 1994; Schur, 1971; Surette, 2014). This investigation supports other research that suggests moral panics are not necessarily fleeting; rather, in the case of sex offenders, they may be perpetuated in a way that continues to address perceived criminal risk, regulate moral boundaries, and reinforce perceptions of an ever-vigilant criminal justice system (O’Hear, 2008; Walker, 2010). Interpreted within a public judgment framework, these findings suggest a “weak” public, in that opinions remain stable over time irrespective of changes in media attention or the passage of symbolic legislation. Further, perhaps in a risk-based society, a “weak” public that is engulfed in “crime control theater” is needed to justify symbolic legislation that demonstrates a constantly attentive

legislature and criminal justice system. Unlike prior examinations, then, this study suggests that the understanding of public interest in sex offenders and corresponding policy is more nuanced than previously suggested.

There appears to be more independence between media attention and public interest than has formerly been assumed (Glassner, 1999; Jones & Baumgartner, 2005; Rubin, 1977). Media coverage of sex offenders and offending obviously exert some influence on public opinion, but once public interest and opinion on a topic are established, changes in media attention of that topic do little to change public interest in or judgment of an issue, as evidenced by the stability in Internet searches for sex offender information. In this way, there may be an information saturation point at which media attention no longer exerts a strong influence on public interest. Moreover, as Nisbett and Ross (1980) suggest, once representativeness and availability heuristics are used to formulate opinion on an issue, people often ignore future information and fail to make adjustments to their initial conceptions. Thus, perpetual public interest in sex offending is likely to occur as people continue to actively seek information that reaffirms their initial opinions (for instance, of sex offenders as highly recidivistic, compulsive predators of stranger’s children), which contributes to the stability in a “weak” public. To this end, findings of the confluence of media attention and public opinion in the role of moral panic legislation is not a given. This will depend on assumptions made by researchers, the data used, and measures employed to examine moral panics and the legislation resulting from such. This study would suggest that it may no longer be appropriate to assume that media attention of an issue is representative of public interest or opinion, that increases in media coverage translate into increased public attention, or that decreases in traditional print and television media attention reflect a decrease in public interest and attention.

More importantly, there are implications for the future of sex offender policies based on the perpetuation of public interest in sexual victimization. Until new technologies are developed to further increase the level of surveillance of sex offenders in the community, the stability of public interest would suggest some difficulty in developing and enacting new sex offender laws. What is more likely, and has already been seen (see above), is that existing sex offender laws will continue to be revised to enhance duration of surveillance, increase penalties for sex offending and registration violations, and broaden the scope of people whose risk needs to be managed and behaviors need to be regulated. Existing sex offender laws can be used to

further identify the “out” group, the “sexual predators,” whose behavior threatens moral order (Erikson, 1966).

To the degree that public interest and opinion have already been formed on other criminal types as posing serious risk to communal values and safety, such as burglars or robbers, their addition to CODIS DNA databases, registries, and residency restriction laws will likely be unchallenged by the public (Keys, 1961). In this way, sex offender laws will become “gateway” legislation for restricting moral boundaries, managing more types of risk, and isolating more people and behaviors. The existence of a moral panic or increasing media attention will no longer be relevant to the understanding of an ever-expanding scope of sex offender legislation. Our investigations should move past the examination of law creation and begin to investigate when and under what conditions public interest is perpetuated, allowing for legal reforms that criminalize and segregate more people and behaviors. Only then can we better understand the enactment, perpetuation, and consequences of “knee-jerk” legislation over the long term.

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Endnotes

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- ¹ Ideally, we would include several years of Google Trends data before and after the passage of the Adam Walsh Act (AWA) in 2006 to provide more symmetry to our analyses and to depict public interest in sex offenders and offending since the 1980s, or when many consider the beginning of the contemporary sex offending moral panic (Jenkins, 1998). Unfortunately, Google Trend data do not exist prior to 2004, so we are left with only two years of data representing public interest in sex offending pre-AWA.
 - ² DEL. ANN. CODE TIT. 16, § 903; FLA. ANN. STAT. § 39.201; IDAHO CODE ANN. § 16-1605; IND. ANN. CODE § 31-33-5-1; KY. REV. STAT. ANN. § 620.030; MD. CODE ANN., FAM. LAW § 5-705; MISS. ANN. CODE § 43-21-353; NEB. REV. STAT. ANN. § 28-711; N.H. REV. STAT. ANN. § 169-C:29; N.M. ANN. STAT. ANN. § 32A-4-3; N.C. GEN. STAT. ANN. § 7B-301; OKLA. STAT. ANN. TIT. 10A, § 1-2-101; R.I. GEN. LAWS § 40-11-3(A); TENN. ANN. CODE §§ 37-1-403; 37-1-605; TEX. FAM. CODE ANN. § 261.101; and UTAH CODE ANN. § 62A-4A-403.
 - ³ N.J. REV. STAT. § 9:6-8.10; WYO. STAT. ANN. § 14-3-205.
 - ⁴ Although we recognize that the implementation of AWA is ongoing as states continue to attempt to comply with its requirements, the actual passage of the Act at the federal level did stimulate state legislators' conversations with each other and the public (see, e.g., BillNelson.Senate.gov, 2006; Hernández, 2006; Reinhart, 2007). Thus its passage did influence policy makers' conversations with the public through various media outlets and may have influenced public interest in the topic of sex offenders and offending.
 - ⁵ Percent contributions to variance in search volumes described in unconditional models were calculated by dividing the variance component for each level of analysis by the total variance explained by the model.
 - ⁶ The piecewise slope analysis was replicated using the crime and terrorism keywords, and the results were similar to those of earlier analyses. Although statistically significant variation in these keyword searches was still attributable to time, the substantive significance of these changes were quite small (i.e., accounting for decreases of less than one search per week). As these findings were both supplemental to the primary analysis and, ultimately, not substantively contributive to this paper, the results of piecewise slope analyses for the crime and terrorism keywords were excluded from Table 3 and are not described in detail above.

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