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# Law Enforcement Decision Making with Suspects Who Are Mentally Ill: What Is Reasonable Use of Force?

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Philadelphia College of Osteopathic Medicine

Department of Psychology

LAW ENFORCEMENT DECISION MAKING WITH SUSPECTS WHO ARE  
MENTALLY ILL: WHAT IS REASONABLE USE OF FORCE?

Danielle M. Dorn

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Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Psychology

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**PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE  
DEPARTMENT OF PSYCHOLOGY**

**Dissertation Approval**

This is to certify that the thesis presented to us by Danielle Dorn  
on the 11 day of May, 2011, in partial fulfillment of the  
requirements for the degree of Doctor of Psychology, has been examined and is  
acceptable in both scholarship and literary quality.

**Committee Members' Signatures:**

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**Chair, Department of Psychology**

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### **Abstract**

Police often come into contact with suspects who are mentally ill and who may resist arrest. Research has indicated that individuals with mental illness may have greater difficulty understanding and responding to commands than those who are not mentally ill. This two-group repeated-measures vignette study sought to determine whether law enforcement officers use different degrees of force with suspects who display overt signs of mental illness. One hundred and forty police officers were randomly assigned in equal proportions to read either two vignettes involving a criminal act in which the perpetrators displayed signs of mental illness (experimental condition) or two vignettes in which the perpetrators displayed no signs of mental illness (control condition). It was hypothesized that officers assigned to the experimental condition would use more force than officers assigned to the control condition. It was further hypothesized that officers in the experimental condition would experience a greater degree of negative affect than those in the control condition. Results did not support either hypothesis, suggesting that officers may not react differently to suspects with mental illness. The hope is that this research will offer insights for police departments with and without use-of-force training programs.

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LAW ENFORCEMENT DECISION MAKING WITH SUSPECTS WHO ARE  
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**Chapter 1. Introduction and Literature Review**

**Statement of the Problem**

In the United States, approximately 61.5 million adults experience some form of mental illness; 13.6 million of those adults suffer from severe forms of mental illness. In fact, 2.4 million adults are living with schizophrenia (National Alliance on Mental Health, 2013). Research from the National Alliance on Mental Health revealed that only a small percentage of individuals with mental illness are receiving treatment (NAMI, 2013). A law like the Community Mental Health Centers Act of 1963 reduced the resources available for the mentally ill. Psychiatric hospitals lost funding, and the criteria to involuntarily commit someone became even more stringent. The closing of state psychiatric hospitals, better known as deinstitutionalization, left many people with severe mental illness homeless and unmedicated. Nationally, more persons with mental illness are in prisons and jails than in psychiatric hospitals (Hails & Borum, 2003).

The challenges and problems of criminal-justice functionaries interacting with the mentally ill are often experienced by law enforcement, as first responders, on patrol. LaGrange (2000) found that, on average, 89% of officers come into contact with individuals who are mentally disordered. Of all police calls, 7% to 10% involve suspects who are mentally ill (Hails & Borum, 2003). Unfortunately, officer training with individuals who are mentally ill is minimal, with an average 6.5 hours of training devoted to impaired individuals. The term *impaired individual* includes a wide range of

“unpredictable” people, for example, suspects who abuse alcohol and other substances and suspects experiencing psychiatric disorders that range from schizophrenia to dementia (Kaminski, Digiovanni, & Downs, 2004).

Officers, on average, receive 40 hours of training, most of which is devoted to de-escalation techniques in use of force situations. In a limited number of departments, officers are self-selected to be in specialized mental-health units that offer additional training. The fact that these units are only in a small number of departments is problematic because research shows that individuals who are mentally ill do not respond to normal police techniques in the same way as the general population does. Research also shows that using general techniques causes an escalation in the use of force (Morabito et al., 2012). Borum (2000) found that communication and mediation skills were two of the highest predictors of de-escalation. Police standard training procedures include the use of commands and demands. Suspects who are experiencing mental disturbances may not fully appreciate traditional police commands in the same way as they would respond to trained de-escalation techniques. The latter are often gauged to a specific situation and individual. Many studies show that police encounters with impaired persons are more likely to involve the use of force than are encounters with unimpaired persons (Crawford & Burns, 1998; Engel, Sobol, & Worden, 2000; Friedrich, 1980).

Lack of knowledge of mental illness is often cited as a reason officers respond with unreasonable force (Watson, Morabito, Draine, & Ottati, 2008). Therefore, educating officers on mental illness has proven to be more effective than the status quo in

reducing force in police interactions with the mentally ill (Watson et al., 2008). Research indicates that the use of force should follow a *use-of-force continuum*, in which the officer's force is proportional with the suspect's resistance (Dror, 2007). This continuum is first used in police-academy training to guide novice first responders with a conceptually clear way of thinking about the level of force that is reasonably related to the suspect's resistance. Later, once on the police force, officers think of the kind of force that would be reasonably deployed in relation to the resistance they face from suspects—the very essence of the linear force continuum that was part of their academy training.

The first level of the force continuum is law enforcement's presence. The presence of a police officer is expected to deter crime or de-escalate a potentially violent or hostile situation. Once on the scene, without any indication of suspect resistance, police officers are instructed to use nonthreatening verbal commands. Police may increase the volume of their voice and issue short-worded commands (e.g., stop, do not move). When verbal commands are insufficient, *empty-hand controls* may be indicated. These controls include soft techniques (e.g., grabbing or holding a suspect) or hard techniques (e.g., punching or kicking a suspect). Next, nonlethal or less lethal methods are available (e.g., blunt impact, chemical sprays, and conduct energy devices). Finally, police are authorized to use lethal or deadly force when the suspect poses an imminent threat of serious bodily injury to the officer or someone else (Atherley & Hickman, 2014).

The escalation through different levels of resistance and responses to resistance is generally conceived of as linear. Research on this continuum is quite limited, however, and police-suspect interactions are very fluid and, at times, fast paced. Depending on the factual circumstances, the movement from verbal commands to lethal force may occur in seconds. More frequently, police are able to use their presence to diffuse potentially violent interactions. For interactions with suspects, police generally assume a somewhat linear progression—one that is also predictably responsive and rational (Burrows, 2007).

### **Purpose of the Study**

Empirical research examining the relationship between police use of force and mental illness is lacking (Johnson, 2011). With an increasing number of interactions between police and suspects who are mentally ill and the tendency of such suspects to use extreme resistance, research on the reasonableness of the use of force with suspects who are mentally ill is critically important (Mulvey & White, 2014). This dissertation explores the reasonableness of law enforcement departures from the force continuum with suspects who are mentally ill. Specifically, the primary research question is: Do law enforcement officers, when faced with a suspect who is mentally ill and acting irrationally, alter their prescribed progression up the force continuum in ways that account for or accommodate the suspect's perceived unpredictability?

A secondary research question is as follows: Do law enforcement officers experience a higher degree of negative affect when interacting with suspects who are mentally ill versus suspects who are not mentally ill? Last, this dissertation examines other factors that may be related to the independent or dependent variables. The hope is

that this research will offer insights to police departments with and without use-of-force training programs. Equally important, this kind of research raises awareness of the challenges of responding to an ever-increasing number of persons who are mentally ill in the criminal-justice system.

### **Literature Review**

#### **Law enforcement and use of force.**

Law enforcement officers have many duties, one of which is being the first to respond to scenes of crimes or suspected crimes. The challenge of being a “first responder” includes encounters involving citizens and suspects who are mentally ill (Teller, Munetz, Gil, & Ritter, 2014). These encounters may be difficult and dangerous for law enforcement, as police-civilian and police-suspect interactions often engender risks. Suspects who are mentally ill pose additional risks because they may behave irrationally, thereby making a determination of the amount of force that is required more difficult for officers. In such situations, police may respond with reasonable force in reacting to perceived resistance, or they may respond by under- or overreacting (Police Executive Research Forum [PERF], 2012). Police use-of-force decisions may be a function of their awareness of mental illness, present mood, sense of empathy, or possibly legal and psychological training as to how to engage individuals who are mentally disturbed. All may be causal or mediating variables that account for variance in use-of-force decision making by police (Borum, 2000).

To the lay public, individuals who experience and display signs of severe mental illness are often assumed to be dangerous, violent, unpredictable, untrustworthy, and

untruthful (Watson, Corrigan, & Ottati, 2004). Such assumptions about the expression of mental illness certainly vary in accuracy. These assumptions, however, not only are shared by law enforcement but, at times, also frame their interactions with suspects and victims who are mentally ill. The stigma associated with mental illness may at times cause police to make false attributions about a suspect's apparent resistance. In this way, mental illness may confound officers' decisions about their choice of responses. Unfortunately, researchers have yet to examine how these attributions about individuals with mental illness influence officers' reactions (Watson et al., 2004). This dissertation takes small steps to explore how law enforcement officers perceive suspects who are mentally ill and how their perceptions affect use-of-force decisions.

Some notable research exists on the role of race and class on police officers' decision making (Adler, Mueller, & Laufer, 2016). Notable cases in the media over the past decade highlight lay perceptions that police stop-and-frisk policies and use-of-force practices are, in fact, race based. Research offers some support for these perceptions (Plant & Peruche, 2005). Literature is emerging on the nature and characteristics of police officer responses to suspects who are mentally ill. Watson et al. (2004), for example, described a paradigmatic response to exaggerated levels of suspect demands and reasonable compliance techniques. The authors concluded the following:

Fear of personal injury and a lack of understanding and empathy on the part of the police officers, combined with the difficulty or reluctance to comply with instructions on the part of the person with mental illness, are the leading causes of violent confrontations between the two. (Watson et al., 2004, p. 379)

A confluence of situational and perceptual factors, according to Watson et al. (2004), raises the risk of increasing levels of force. A priori knowledge that a suspect has mental illness may frame an officer's response when first on the scene of a crime. Watson et al. (2004) conducted a vignette study with a sample of police officers. Each vignette provided a scene in which the suspects exhibited varying degrees of mental illness. A control group responded to suspects with no mental illness. When subjects responded to a vignette with a suspect with schizophrenia, for example, they were concerned with control along with feeling empathy, both of which were confounded by an increased perception of dangerousness. Other research has demonstrated that officers do, indeed, perceive individuals with mental illness as dangerous and that the level of perceived dangerousness is associated with officer characteristics. For example, Bolton (2000) found that younger undertrained white officers viewed mental illness in suspects as more dangerous in contrast to older minority officers with training in mental illness.

Kaminski et al. (2004) found that police interactions with impaired suspects, including those with mental illness, are more likely to involve the use of force as compared to interactions with non-impaired suspects. This likelihood is the result, in part, of the belief that suspects who are mentally ill fail to decrease their levels of resistance when presented with traditional police use-of-force techniques and commands. One of many explanations offered for different use-of-force decisions with persons who are mentally ill includes "negative" attitudes, more generally, toward persons with mental illness. Lack of education and exposure to persons with mental illness are often discussed in relation to use-of-force decisions (Borum, 2000).

The complexity of police officers' perceptions was considered by Morabito et al. (2012). These researchers concluded that "although people with mental illness are usually not dangerous, they can behave bizarrely and may not respond to police officer cues in a predictable manner based on the behavior of others" (Morabito et al., 2012, p. 58). If this bizarre behavior comes from a highly irrational state of mind, the potential for harm to all parties increases (Kaminski et al., 2004). The unpredictability of the situation causes officers to be apprehensive and more likely to respond with force. Police officers often mistake the unpredictable behavior as hostile and purposeful resistance (Cordner, 2006) when, in fact, it is literally a lack of ability to comprehend and respond to the officer's requests.

Johnson (2011) explored whether suspects with mental disorders were more likely than non-disordered suspects to prompt physical force from the police. The findings revealed that suspects who were mentally disordered were significantly more likely than other suspects to act violently, resist the police, and possess a weapon. Once these characteristics were controlled for, however, suspects who were mentally disordered were not any more likely than suspects who were not mentally disordered to receive physical force.

As Watson et al. (2004) recognized, multiple points of contact are possible between police and persons with mental illnesses. In their vignette study of police reactions to a suspect with schizophrenia, they explored the differential police response to (a) a person in need of assistance, (b) a victim, (c) a witness, and (d) a suspect. This chapter reviews police-suspect interactions, while recognizing the importance of such

interactions. Special attention is given to the laws, guidelines, and standards governing police use of force and how some police departments have developed specialized units and programs to ensure a measured response to suspects who are mentally ill. This review is followed by a consideration of the role of stigma in fashioning police responses to suspects who are mentally ill. This chapter concludes with a discussion of the prominent psychological theories that explain some of the variance in how and why police attribute dangerousness to the mentally ill population.

**Legal constraints on law enforcement.**

At about 10:45 p.m. on October 3, 1974, Memphis Police Officers Elton Hymon and Leslie Wright were dispatched to answer a “prowler inside call.” Upon arriving at the scene they saw a woman standing on her porch and gesturing toward the adjacent house. She told them she had heard glass breaking and that “they” or “someone” was breaking in next door. While Wright radioed the dispatcher to say that they were on the scene, Hymon went behind the house. He heard a door slam and saw someone run across the backyard. The fleeing suspect, who was appellee-respondent’s decedent, Edward Garner, stopped at a 6-foot-high chain link fence at the edge of the yard. With the aid of a flashlight, Hymon was able to see Garner’s face and hands. He saw no sign of a weapon, and, though not certain, was “reasonably sure” and “figured” that Garner was unarmed. He thought Garner was 17 or 18 years old and about 5’5” or 5’7” tall. While Garner was crouched at the base of the fence, Hymon called out “police, halt” and took a few steps

toward him. Garner then began to climb over the fence. Convinced that if Garner made it over the fence he would elude capture, Hyman shot him. The bullet hit Garner in the back of the head. Garner was taken by ambulance to a hospital, where he died on the operating table. Ten dollars and a purse taken from the house were found on his body (*Tennessee v. Garner*, 471 U.S. 1,4, 1985).

In the police academy, all cadets hear about the life and death of Edward Garner, a young, unarmed, fleeing suspect. The United States Supreme Court case that bears his name, *Tennessee v. Garner*, 471 U.S. 1 (1985), remains the law today and has been interpreted literally thousands of times by federal and state courts. The law may be simply stated: It is unconstitutional, a violation of the Fourth Amendment's prohibition on unreasonable seizures, for police to use deadly force against a fleeing felony suspect who is unarmed. Of course, when police have probable cause to believe that there is a threat of serious physical harm to officers or others, the use of deadly force is justified (e.g., when the suspect threatens police or a civilian with a weapon). This outer boundary on the permissible use of force by police is deeply embedded in all police-training programs, in all state laws, and in all police department policies regarding the "reasonable use of force" (Tennenbaum, 1994).

The case of *Tennessee v. Garner* (1985) offers no more than the constitutional boundary for what police may or may not do. The prevailing standard for whether excessive force can be used comes from a case that was decided 4 years later (*Graham v. Connor*, 490 U.S. 386, 1989). In *Graham v. Connor* (1989), the Court explained that

there must be a balancing of “the nature and quality of the intrusion on the individual’s Fourth Amendment interests against the countervailing governmental interests at stake” (490 U.S., at 396). Thus, the Court ruled that determining, after the fact, whether reasonable force was used by police comes from an objective reasonableness standard: whether police officers behaved in an objectively reasonable way in light of the surrounding facts and circumstances.

In the aftermath of *Garner* and *Graham*, countless cases alleging excessive force were brought against police departments, municipalities, states, and the federal government. Each case brings a challenge to the balancing test articulated in *Graham v. Connor* (1989) or with an allegation of an unreasonable use of deadly force, a challenge to *Tennessee v. Garner* (1985). In recent years, an increasing number of cases have raised questions about the constitutionality of force used against suspects who are mentally ill. Consider, for example, the case of *Russo v. City of Cincinnati*, 953 F.2d 1036 (6th Cir. 1992), in which a recently discharged patient with mental illness was shot by a Taser four times and shot with bullets 22 times by police. National news organizations fail to cover cases like James Boyd, who was shot by the Albuquerque Police Department in 2014 after irrationally pleading with officers that he not receive another directive from the Department of Defense. Each year, an increasing number of cases of the killing of suspects with mental illness seem to become news stories that never make it out of local news stations to national networks (e.g., CBS, NBC, and ABC) or cable news programs.

The challenge of determining the objective reasonableness of police officers' use of force with rational suspects is daunting. Making those determinations with the additional complexity of a suspect population with mental illness is extraordinarily difficult. One report on the problem of offenders with mental illness concluded the following:

Persons with mental illness, drug and alcohol addictions, or disorders such as autism can present police officers with difficult challenges. In some cases, a person may brandish a weapon or otherwise appear to pose a threat to the public, to the police, or to himself or herself. The threat may be a real one, or the situation may be less dangerous than it appears, and often it is difficult to assess the level of danger. These situations often are complicated when, because of their conditions, persons cannot communicate effectively with police officers. In some cases, they may appear to be threatening or uncooperative, when in fact they are unable to understand an officer's questions or orders. (PERF, 2012)

Police departments have more than milestone cases in constitutional law, state laws, and departmental directives to help in their determinations. A long-standing metric for determining the objective reasonableness of use-of-force decisions by police is captured by a theoretical continuum—the use-of-force continuum (Terrill & Paoline, 2012).

**The use-of-force continuum.**

The use-of-force continuum guides the response of officers to escalating police-suspect encounters (Garner, Schade, Hepburn, & Buchanan, 1995). The International

Association of Chiefs of Police defines force as the “amount of effort required by police to compel compliance by an unwilling subject” (National Institute of Justice [NIJ], 2009, p. 1). The use-of-force continuum is a practical guide designed to help officers determine the optimal level of force to use in relation to the suspect’s resistance (Aveni, 2003; Wolf, Mesloh, Henych, & Thompson, 2009). The continuum was derived when police use of force clearly could not logically be conceptualized in dichotomous terms (i.e., either force or no force; Garner et al., 1995). Police have a singular objective: to gain control of the situation. The concept of a use-of-force continuum moves officers through a distinct and increasing series of steps, akin to ascending or descending a ladder, ranging from the least amount of force, such as verbal commands, to deadly force (Aveni, 2003; Terrill, 2005).

The use-of-force continuum begins when an officer arrives on scene. The presence of the officer is supposed to impose order and, at the same time, halt and deter any disruptive or criminal behavior. The presence of the responding officer imparts a combination of legitimacy and power, while being both controlling and commanding (NIJ, 2009). The second level of force entails a series of available verbal commands. This stage of the use-of-force continuum comprises its own range of officer responses. The first is a calm command. If the suspect does not listen, then the officer increases the volume of the command and uses terse language for compliance (Clede & Parsons, 1987). The third and fourth stages of the use-of-force continuum are often thought of as the intermediate level of force. In the third stage, an officer may use his or her body to reclaim control of the situation by engaging in empty-hand control, consisting of soft and

hard techniques (NIJ, 2009). Soft techniques are when an officer uses hands to grab, hold, or restrain a suspect. Hard techniques are when officers need to use more substantial physical force to match the suspect's resistance. This resistance may entail either striking or kicking the suspect. The fourth stage is when an officer uses a weapon other than a gun to regain control. These weapons include batons, Tasers, and chemical sprays (Aveni, 2003; Lumb & Friday, 1997). The goal of this stage is to immobilize the suspect. The fifth and final stage entails lethal force, as when officers discharge their guns. Lethal force may take place at any stage of the use-of-force continuum, except in the first two stages (Garner et al., 1995; NIJ, 2009). The use of a gun is considered the most lethal, even though, quite remarkably, death occurs in only one-fifth of police shootings (Clede & Parsons, 1987; see Appendix A).

Over the past 20 years, the use-of-force continuum has assumed different forms. Aveni (2003) carefully distinguished these forms, ranging from linear designs, modified linear continuums, and nonlinear designs to perceptual continuums. These changes, according to Aveni, are an attempt to represent the dynamic nature of police-suspect interactions and to shift from a theoretical orientation to a more practical, real-life view. The linear designs are much like the ladder analogy offered previously: Each rung is an increasing sequence for escalation. The rungs are heuristics for officers when assessing the level of resistance that they must apply (Terrill, 2005).

The modified linear continuums are akin to a tree that branches off into different responses (see Appendix B). An example of a modified linear continuum is the 1997 FBI suggested use-of-force model (Aveni, 2003). This model starts with the first rung, officer

presence, and increases to verbal commands. The next step is where the model departs from the traditional use-of-force continuum; instead of giving a command or a force escalation, it gives the response of the suspect on two different branches, for example, if he or she is compliant to the request by the officer or not (Borum, 2000). If the suspect is compliant, the escalation ceases and a resolution is found; if the suspect is noncompliant, the model continuum provides resistance-appropriate scenarios for the officer to engage in relative to the suspect's resistance (Aveni, 2003). This model was designed to allow officers to see the use-of-force continuum as adaptive to each unique situation (see Appendix C).

Nonlinear designs were created to represent the police officer's everyday encounters, which are anything but linear. Some law enforcement agencies, like Ontario, Canada's law enforcement agency, decided to use this model for multiple reasons. The first reason is that this use-of-force continuum, which often takes the form of a wheel, allows officers to immediately match the suspect's resistance with a commensurate use of force. Second, this model accounts for the wide variety of threats that the officer might encounter that extends far past the traditional model. Last, and possibly the most important, research shows that this technique reduces deadly force (Aveni, 2003) by allowing officers to extricate themselves from a situation by disengagement or de-escalation. Although all use-of-force continuums account for some form of de-escalation, this model is the only one that incorporates it into the actual continuum. An officer can quickly draw on these continuums in an encounter instead of having to recall detailed department policies and protocols. As a result, an officer can quickly escalate or

de-escalate force levels.

The last model, and one that is often used for training officers or investigating use-of-force situations after the fact, is the perceptual continuum. The model starts with officers' expectations about the situation upon arrival and continues to the point when the officers make their first point of contact with the suspect. The model then branches off into three different factors: (a) possible threat perception, (b) key event, and (c) actual threat perception. Each situation is analyzed and evaluated, and then a plan is formulated to react. The reactions, similar to the theory of Cannon (1927) and expounded on by Barlow (2002), include fight, flight, or freeze. The last branch is the aftermath of the situation. This continuum allows for investigators and internal affairs to assess whether the officer was justified in his or her response to the suspect.

The importance of these use-of-force continuum models is simple: to provide officers with intuitive guidelines that structure what must, at times, be reflective reactions to perceived and actual resistance. The reaction of some academics to these use-of-force continuums is mixed. Garner et al. (1995), for example, reported that use-of-force continuums are based on little, if any, empirical support and are not designed in ways that allow for systematic measurement or operationalization. Instead, these use-of-force continuums are modified and tailored to each police department's needs and policies. Some police use these use-of-force continuums to make internal policy and legal requirements more formal.

For other departments, the use-of-force continuum functions as a heuristic for police in situations during which response time is critical. Dror, Basola, and Busemeyer

(1999) found that officers are more conservative in their use of force when in situations that are considered low risk. The opposite occurs when officers are in high-risk situations, during which police tend toward more risk taking. Dror et al. (1999) concluded that these different behaviors are the result of a lack of cognitive capacity in relation to the high-risk situation. They elaborate that officers are often using heuristics in order to assess the scene, thus creating a need for a use-of-force continuum that consists of small, succinct categories that allow for a measured construction of the force necessary to respond to a suspect's resistance. Garner et al. (1995) described the use-of-force continuum as establishing "legal and policy requirements that officers use no more force than is reasonably necessary to obtain compliance" (p. 151).

In this dissertation, the selection of a linear use-of-force continuum reflects (a) the policy in place at the police department surveyed, (b) the most representative continuum used by large municipal police departments, and (c) the best proxy for a rational and justifiable escalation of police use of force in relation to suspect resistance.

These assumptions about compliance must not be violated if the use-of-force continuum is going to allow for a linear increase or decrease in police use of force. These assumptions also include two rational actors—police officers and suspects—who make choices for increasing and decreasing force and resistance in ways that are reasonably predictable (i.e., more force by police will prompt less resistance all the way up the use-of-force continuum to deadly force). This two-dimensional use-of-force continuum does not, however, accommodate irrational reactions, such as efforts to engage in deadly resistance in response to minimal force, verbal commands, or mere presence at the scene.

Suspects who are mentally ill, therefore, may introduce a confound to the inherent logic of the continuum.

**Mental illness and law enforcement.**

Estimates vary widely as to the number of police-civilian interactions that involve suspects who are mentally ill and the resulting number of arrests (Johnson, 2011; Kaminski et al., 2004). A wide range of studies across many jurisdictions finds significant contact between police and suspects who are mentally ill. For example, LaGrange (2000) concluded that nearly 90% of all officers come into contact with suspects who are mentally ill. Hails and Borum (2003) estimated that 10% of all police calls involve suspects who are mentally ill. Further, Engel and Silver (2001) reported that suspects who are mentally disordered were significantly more likely to be arrested than those who are not mentally ill (47.5% vs. 27.9%, respectively).

Police departments often have explicit policies that explain how officers might have to rethink the rationality of the use-of-force continuum in situations when a suspect displays signs or symptoms of psychological and psychiatric distress. Policies tend to cover three distinct sets of rules. First, officers must be able to recognize the kind of behavior that is associated with a psychological or psychiatric diagnosis, particularly those behaviors indicative of dangers to self and others. Officers are often asked to look for recognizable signs and symptoms of mental illness, including but not limited to exaggerated reactions based on apparent fear or anger, inappropriate and unprovoked behaviors, frustrations, delusions, and paranoia (Albuquerque Police Department, 2013; Lamb, Weinberger, & DeCuir, 2002; Reuland, 2004).

Second, in combination with rules for recognizing abnormal behavior, officers are asked to do their best to determine the degree of present danger and not to assume that mental illness is inherently dangerous. Officers need to look for specific indications of dangerousness, from the access to weapons and direct threats of violence or aggression to known history of violence or aggression (Albuquerque Police Department, 2013; Lamb et al., 2002; Reuland, 2004).

Finally, rules of engagement for handling suspects who are mentally ill often require additional officers on the scene, including officers with specialized training or supervisors. Officers are asked to move down the use-of-force continuum, if possible, to de-escalate a suspect's resistance. Successful de-escalation is accomplished, at least in part, by establishing good communication with the suspect (Albuquerque Police Department, 2013; Lamb et al., 2002; Reuland, 2004).

Beyond articulating specific policies for suspects who are mentally ill, police departments are also increasingly providing their officers with general information about mental illness and programs for police interactions with citizens who are mentally ill (Hails & Borum, 2003). These programs are described in the following section.

#### **Specialized law enforcement programs.**

Three types of specialized program models exist to help police respond to calls involving people who are mentally ill. These models include (a) specialized police response programs designed by police, (b) police-based specialized mental-health response programs, and (c) mental-health-based specialized mental-health response programs (Hails & Borum, 2003). The first model is an in-house-based program with

law enforcement officers serving as the initial mental-health crisis intervention team. After stabilizing the scene, officers are asked to act as a liaison to an established mental-health center in the community. An example is the crisis intervention team (CIT) model that originated in Memphis, Tennessee. The focus of CIT training is on training the officers to identify individuals suffering from mental illness and increase their level of confidence in responding. This model is associated with many favorable anecdotal outcomes. It is also regularly modified to accommodate the demographics of the population that is using it, for example, urban or rural settings and size of police force (Watson et al., 2008).

The second program type, police-based specialized mental-health response programs, is currently being used in 13% of police forces in the United States (Hails & Borum, 2003). Some police departments refer to this program as mobile crisis units. Such programs involve mental-health professionals who are employed by the police department. These mental-health professionals, however, do not share the training and status of police officers. Most have no police training. Their purpose is to provide on-site and in-field consultation to law enforcement (Hails & Borum, 2003).

The third type is a mental-health-based specialized mental-health response program, often referred to as mobile mental-health crisis teams (MCTs). This model is considered by some to be the most conventional, even though it is the least common type of program (Aveni, 2003). Currently, only 8% of police departments employ this model, although nearly 30% once used it. This model involves creating partnerships across community mental-health organizations (Hails & Borum, 2003). It relies heavily on the

interactions between local mental-health clinics and police departments, which often engender complications. Research indicates that some of those complications are related to the unfavorable view law enforcement holds of mental-health professionals (Borum, 2000).

The availability of specific policies and different program types suggests the challenge facing municipal police departments. In particular, mental-health-care institutions increasingly discharge patients who present compliance, health care, and behavioral risks. These risks are revealed by the number of mentally ill persons whose custody and care have migrated into the criminal-justice system (Markowitz, 2011).

#### **Mental illness and stigma.**

Mental illness is an epidemic in the United States. Millions of individuals are suffering from different forms of mental illness. Data from the Substance Abuse and Mental Health Services Administration (SAMHSA, 2015) indicate mental illness is relatively stable in the United States population. Between 2008 and 2014, the number of adult individuals with mental illness in the United States fluctuated approximately 1%. Funding for mental-health services was projected to rise an estimated \$170 billion from 2003 until 2014 (Levit et al., 2008). A Centers for Disease Control (CDC, 2015) report from 2010 found that 63.3 million visits were made to physicians' offices, emergency rooms, and outpatient departments specifically related to mental disorders. The National Institute of Mental Health (Insel, 2011) reported that mental disorders were more expensive than the combined costs of treatment for malignant tumors, Type 1 and Type 2 diabetes, and respiratory disorders. The number of individuals suffering from mental

illness is just as staggering. The National Alliance on Mental Health (NAMH, 2015) reported that 43.8 million Americans, or one in five adults, suffer from some form of mental illness. Mental illness ranges from mildly distressing to extremely consuming and debilitating. Severe mental illness, as defined by SAMHSA (2015), is when an individual is suffering from a mental, emotional, or behavioral disorder that significantly interferes with one or more of his or her life activities. Ten million Americans met this criterion, with 2.4 million Americans suffering from schizophrenia and 6.1 million Americans suffering from bipolar disorder (NAMH, 2015). Research from NAMH (2013) revealed that only a small percentage of those who are mentally ill are receiving treatment.

Such laws as the Community Mental Health Centers Act of 1963 reduced the resources available for those with mental illness. This legislation, and other federal, state, and local laws, made receiving treatment all the more difficult. Prior to the 1960s, large numbers of people who were mentally ill were treated in publicly funded mental-health hospitals (Borum, 2000). When funding was significantly reduced, however, many of the patients living in these facilities had no other mental-health options. This trend is evidenced by a decreasing number of available mental-health beds. In 1960, approximately 314 beds were available per 100,000 people (Markowitz, 2011). By 1990, after a majority of the mental-health funding had been cut, approximately 40 beds were available per 100,000 people, and by 2005, only 17 beds were available per 100,000 people.

The defunding of mental-health hospitals, also known as deinstitutionalization, left many of those who resided in the hospitals without stable plans as to how to transition to life outside of structured care (Borum, 2000). One-third of individuals who met criteria for a mental illness were reported as homeless. Currently, 26% of adults with mental illness reside in a homeless shelter (NAMI, 2015). Markowitz (2011) wrote that criminogenic environments are marked by mental illness and homelessness. These environments explain, in part, the concerning rise in individuals with mental illness who are residing in the criminal-justice system.

Remarkably, the criminal-justice system has taken in a significant portion of the mentally ill population. Watson et al. (2008) went so far as to refer to police officers as gatekeepers to both the mental-health and criminal-justice systems, elaborating that “the large numbers of people with mental illness in jails and prisons has fueled policy concern in all domains of the justice system” (p. 1). Of course, prisons and jails have assumed the role of mental health hospitals in the past. In the early 19<sup>th</sup> century, jails and prisons were the repositories of persons with mental illness. Eventually, in a time of widespread change and mental-health reform, Americans regarded the institutionalization of persons with mental illness in prison as inhumane. This change in public sentiment led to the increased use of the now largely defunct mental hospitals (Torrey, Kennard, Eslinger, Lamb, & Pavle, 2010).

The number of inmates who are severely mentally ill is now rising at an alarming pace. Torrey et al. (2010) found that only 6.4% of inmates in the early 1980s were mentally ill. Research conducted in 2010 found that the number of incarcerated

individuals with mental illness had nearly tripled. In 2010, nearly one-fifth of incarcerated individuals in the United States suffered from mental illness. Kim, Becker-Cohen, and Serakos (2015) reported even more alarming numbers, finding that more than half of state prisoners and local jail inmates had mental-health problems. Approximately 45% of all federal prisoners experience these problems as well. Perhaps most disturbing is the fact that 70% of youths in the juvenile justice system have been diagnosed with mental illness, and of those, 20% suffer from a severe mental illness (SAMHSA, 2015). The space that these individuals consume is not the only problem created by this shift in the criminal-justice system caring for persons who are mentally ill. Research by Goss, Peterson, Smith, Kalb, and Brodey (2002) found three of four attempted suicides were made by inmates with diagnosable mental illness.

The mental-health stigma in the criminal-justice system is far from surprising when one realizes the challenges of serving the care, custody, and control needs of persons who are mentally ill, often with limited space and resources. This stigma is likely to impact the actions of all criminal-justice functionaries (e.g., use of force by police, competency decisions by courts, and classification of inmates by risk level in correctional institutions). This stigma may have far-reaching effects, including discrimination, limited opportunities, inadequate access to health care, and marginalization in society.

#### **Mental-health stigma and differential treatment.**

Historically, persons who are mentally ill have experienced discrimination and stigmatization across a wide range of settings (Hinshaw & Stier, 2008). The collective

concern about both discrimination and stigmatization was so great in 1999 that the United States Surgeon General recognized mental-health stigma as a barrier to opportunities and treatment for those with mental illness (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003). The report found that the stigma of mental illness had longstanding iterative, tautological effects, from the initial stigma to poor treatment, followed by feelings of demoralization, low self-esteem, and internalization of the stigma, to the reinforcement of those feelings by external stigma. The practical impact of this reinforcing circular stigmatization includes challenges in obtaining housing and employment and far less than fair and just interactions with law enforcement (Hinshaw & Stier, 2008).

Perceptions of mental illness, its meaning and effects, are constantly evolving. In the early 1950s, the public's awareness of mental illness was minimal (Markowitz, 2011). Survey research at the time revealed that most Americans associated mental illness with a generic, lay conception of psychosis, revealing a very narrow conception of psychopathology. Four and a half decades later, the same survey was conducted again (Markowitz, 2011). This time, respondents revealed a more informed and progressive view of mental illness, with only 35% believing that mental illness is simply a psychosis. Respondents also noted that depression, anxiety, substance use, and more persistent life-long disorders, such as personality disorders, were types of mental illness (Markowitz, 2011). A study conducted in the late 1990s by Markowitz (2011) gave subjects vignettes of individuals with three types of illness: depression, schizophrenia, and substance abuse. Of the sample, 88% correctly identified schizophrenia and 96% correctly diagnosed depression. When asked if subjects believed that these illnesses were caused by external

factors, most of the sample believed that the illnesses were outside of one's control and did not reflect poorly on one's character.

Many studies show a significant increase in the awareness of mental health and mental-health diseases. This rising awareness, though, is contemporaneous with beliefs that mental illness is highly correlated with violence, unpredictability, and dangerousness. According to Martin, Pescosolido, and Tuch (2000), attitudes and conceptions of mental illness are changing. Martin et al. observed that the number of respondents who connect mental illness with violence has nearly doubled in the past 50 years. They wrote that those who equate mental illness with psychosis tend to attribute dangerousness to the mentally ill and generally reject them in every aspect of life. The intuition that the increases in the association between violence and dangerousness in persons who are mentally ill are tied to media and fictional portrayals of mental illness is fair and worthy of empirical exploration.

#### **Criminalization hypothesis.**

The perception of individuals who are mentally ill as criminals is referred to as the criminalization hypothesis. Engel and Silver (2001) assumed the position that some police attribute a quasi-criminal or criminal label to persons with mental illness. According to Engel and Silver), evidence in support of this hypothesis may be divided into three parts. First, a disproportionate number of persons who are mentally ill are in each and every stage of the criminal-justice system. Second, the very specific number of former mental-health arrestees reflects this hypothesis. Third, the arrest rates of suspects who are mentally disordered far exceed the rates for those who are not mentally

disordered. A growing but contested stream of research reveals that suspects with signs of mental illness are much more likely than those without such signs to be arrested. A less contentious but growing body of work grounds intuitions and hypotheses about suspects with mental illness and their treatment in leading psychological theories.

### **Theories.**

#### ***Social cognitive model.***

A significant percentage of police work involves contact with individuals who are suffering from a serious mental illness in the role of suspect, victim, or witness. The erratic behavior of an individual who is severely mentally ill can be unpredictable, prompting a deviation from the formal training of a criminal-justice functionary. Often, police officers must use a heuristic to predict a suspect's next response. Officers frequently engage in behavior consistent with attribution theory. This theory is closely associated with the social cognitive model. This intuitive model simply proposes that individuals learn by observing others and that their perspective is taken from their own social sphere and world view. Corrigan (2000) offered an analogy of a social cognitive model for individuals with mental illness, concluding "persons with severe mental illness signal the public about their mental illness. These signals yield stereotypes about persons with mental illness. Stereotypes lead to behavioral reactions or discrimination" (p. 49). An example of a signal is a person talking to him or herself. That signal would produce a stereotype of "crazy people are erratic." This stereotype might produce a behavioral response that could manifest in people avoiding individuals who are mentally ill. This response would likely result in one or more forms of discrimination.

*Attribution theory.*

Attribution theory is used to describe the thought processes behind police interactions with civilians, particularly those with mental illness. Fritz Heider's 1958 attribution theory is a widely influential theory that explains the process of understanding the behavior of others (Weiner, 2008). Corrigan (2000) conceived of attribution theory as "fundamentally a model of human motivation and emotion based on the assumption that individuals search for causal understanding of everyday events" (p. 52). This theory, although not currently a dominant paradigm, has been subjected to active hypothesis testing over the course of the past nearly 60 years. Many researchers believe that healthy and adaptive behavior is characterized by attributions. The critical piece of the theory is that it assesses for perceptions or what some describe as achievement outcomes (Weiner, 2008). Malle (2004) described reasons, or ascriptions, as commonplace justifications for ordinary behavior. However, attributions, or outcomes, are conceived to be less common in straightforward psychology. Attribution theory is focused solely on causes.

Attribution theory captures the idea of agency and what is referred to in the literature as locus of control. Heider first spoke about this concept in his seminal 1958 book as *loci*, which translates to *can*. He believed that ability, *loci*, was centered on the individual's internal state, while task difficulty was more attributable to external factors and influences. Rotter (1954) conceptualized locus of control and used the more common terminology of internal and external locus of control. Rotter wrote that the idea of locus of control reflects individuals' perceptions of an event and their belief in the level of their control. Ability was referred to as internal locus of control, meaning that

individuals perceive that they have agency over an event, situation, or life circumstance. Task difficulty was slightly changed, resulting in the name external locus of control, meaning that individuals perceive that they have little to no control over the events in their lives and that fate, environment, or chance dictates the outcome of their life circumstances.

Rotter's theory is used in police use-of-force literature and the study of suspects who are mentally ill. Corrigan (2000) reported that "research has found significant associations for controllability attributions about mental illness and two emotional reactions: anger and pity" (p. 55). Watson et al. (2004) reported the following:

According to attribution theory, persons who are viewed as responsible for negative situations (e.g., not having a way to get home) are more likely to be reacted to with anger and punished or denied help. Conversely, individuals who are not believed to be in control of a negative situation are pitied by others and helped. (p. 379)

Watson et al. (2004) conducted a study using vignettes that were given to police officers with the content detailing how the label of mental illness influences attribution, affect, and perception. In this study, police officers attributed less blame to and felt more empathy for subjects with schizophrenia. At the same time, they considered subjects with schizophrenia more dangerous than individuals without severe mental illness. Ruiz (1993) also reported that officers erroneously believed that suspects who are mentally ill are more dangerous than their non-mentally-ill counterparts. Watson et al. (2004) reported the following:

Fear of personal injury and a lack of understanding and empathy on the part of officers, combined with the difficulty or reluctance to comply with instructions on the part of the person with mental illness, are the two leading causes of violent confrontations between the two. (p. 379)

Part of this misconception has been linked to a lack of information about suspects who are mentally ill that produces negative attitudes of police toward those suspects (Borum, 2000). Ultimately, a police officer is more likely to have empathy for a suspect who is mentally ill when the idea of mental illness is understood, the suspect's demeanor is nonthreatening and nonhostile, and, at the same time, the officer perceives some control over his or her presence at the scene of a crime. All of these factors will likely influence the officer's responses to suspects who are mentally ill. The first option is to simply do nothing, essentially ignoring that the situation has occurred. The second option is to take the suspect into custody. The third option is to not arrest the suspect and, instead, informally resolve the matter. The last option is to come to some other kind of "formal resolution," such as seeking involuntary commitment if the suspect appears to be a danger to him or herself or others. Law enforcement perceptions, attitudes, and situational factors influence decision making.

### **Summary**

The criminal-justice system in the United States is known for problems associated with race-based decision making (Adler et al., 2016). Far less is known about how individuals with mental illness are perceived and treated by criminal-justice functionaries across the entire system—from the initial point of contact (police) to classification

decisions in state correctional institutions. This dissertation explores the reactions of police to suspects who are mentally ill versus suspects who are not mentally ill. More specifically, this study determines whether these differences lead officers to stray from the force continuum and whether certain factors moderate this effect. First responders must determine whether a criminal wrongdoing has occurred; who is responsible; whether the responsible party should be detained, placed in custody, and possibly removed from the scene; and the kind of force, if any, that is necessary and justifiable. When a suspect suffers from a mental illness, all of these decisions are made more difficult. No single decision is more important or has greater consequences than police use of force.

## Chapter 2. Hypotheses

### Hypothesis 1

H<sub>1</sub>: It is hypothesized that officers exposed to vignettes involving suspects displaying signs of mental illness will use greater force compared to officers exposed to vignettes involving suspects displaying no signs of mental illness.

Rationale for H<sub>1</sub>: Law enforcement officers are often in situations where they must decide whether to use force against a suspect's resistance and the amount of force that is justified. Suspects who suffer from overt mental illness make those decisions much more difficult. Kaminski et al. (2004) found that when interacting with impaired suspects, either under the influence of a substance or displaying a mental illness, officers are more likely to use force as compared to when interacting with nonimpaired suspects. Watson et al. (2004) found that law enforcement officers perceive suspects displaying signs of mental illness as more hostile and threatening than their non-mentally ill counterparts.

### Hypothesis 2

H<sub>2</sub>: It is hypothesized that officers exposed to vignettes involving suspects displaying signs of mental illness will experience a higher degree of negative affect compared to officers exposed to vignettes involving suspects displaying no signs of mental illness.

Rationale for H<sub>2</sub>: Increased force might, in part, be the result of officers associating mental illness with a negative connotation (Borum, 2000). These behaviors stem from a widely held belief that police techniques and commands that are commonly

used in police-suspect interactions are ineffective with persons who are mentally ill (Watson et al., 2008). These negative and ill-informed behaviors and beliefs result from a lack of training on the topic of mental illness (Borum, 2000).

### **Exploratory Analyses**

In addition, exploratory analyses were conducted to examine the association of officer characteristics (i.e., age, years of service, empathy, and attitudes toward mental illness) with use of force. These analyses follow up on research indicating that certain officer characteristics may influence the way officers perceive suspects who are mentally ill. For example, Watson et al. (2004) reported that officers who had less formal training with suspects who were mentally ill and were younger perceived suspects with mental illness as much more dangerous and aggressive than their non-mentally ill counterparts.

### **Chapter 3. Methodology**

#### **Overview**

This dissertation examines the perceived reasonableness of police use of force when an officer faces resistance from suspects whose behavior suggests mental illness. The central question posed is whether police officers are more likely to deviate from the prescribed force continuum when interacting with apparently mentally ill versus apparently non-mentally ill suspects. This dissertation also explores police officers' levels of affect, empathy, and attitudes toward mental illness.

#### **Design and Design Justification**

This dissertation is based on archival data from a larger host study on police use of force sponsored by a regional police agency with headquarters in a large city in the Mid-Atlantic region of the United States. This study's design includes a randomized between-group repeated-measures ANOVA.

#### **Participants**

In the first quarter of 2016, in response to increasing public scrutiny of stop-and-frisk and police use-of-force decision making, the chief of the police agency initiated a series of studies on policing and the Fourth Amendment. The objective of this research program was to proactively examine some of the challenges of an urban police department in balancing the need for effective law enforcement with the civil rights and liberties of citizens. This research program included an examination of the level of substantive criminal-law knowledge by patrol officers in relation to stop-and-frisk decisions, the effect of body cameras on the exercise of police use of force, the role of

race and gender in police use-of-force decisions, and how police officers perceive use-of-force decisions with suspects and citizens who present as mentally ill.

This dissertation uses archival data from the administration of a survey of police officers regarding suspects and citizens with mental illness for this last research project. Participants were 140 officers ( $N = 140$ ) randomly drawn from all ranks, from patrol officers to those reporting directly to the chief of police.

Inclusion criteria for participants from the larger study were sworn officers of any rank in this regional police department. No exclusion criteria were used if the inclusion criteria were met.

### **Measures: Primary Outcomes**

#### **Vignettes and questions.**

Participants responded to two hypothetical scenarios of criminal acts occurring in two different settings, both involving unlawful behavior engaged in by an individual displaying either overt signs of mental illness or no signs of mental illness. Specifically, the first vignette involved an individual avoiding the fare on a train and brandishing a knife. The second vignette involved an individual attempting to break in to a cash register in a Dunkin Donuts. Signs of mental illness found in the hypothetical scenarios were taken from the *Diagnostic and Statistical Manual of Mental Disorders* (5<sup>th</sup> ed.; *DSM-5*; American Psychiatric Association, 2013) sections on Schizophrenia Spectrum and Other Psychotic Disorders. The settings of the scenarios were selected and adapted from archival transit police reports involving a “302 Petition” during the 2015 calendar year. A “302 Petition” is an authorization for law enforcement, physicians, or a county

mental-health officer who seeks involuntary emergency evaluation of an individual for a period of no longer than 5 days. Scenarios were rated by three senior police officers of different ranks for their representativeness and were selected on that basis, i.e., the extent to which scenarios were “typical” of police interactions with suspects who are mentally ill. Questions following the factual scenarios asked participants to consider (a) the number of verbal warnings or commands that the officer should employ before escalating any force response and (b) what the officer’s next response should be if those verbal warnings or commands did not work. These responses were subsequently coded by two blind raters, who sorted them into one of five level-of-force categories. Discrepancies were reconciled by an independent third rater. Raters used the National Institute of Justice Force Continuum (NIJ, 2015) as a guide for rating decisions.

#### **The Positive and Negative Affect Schedule.**

The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), a 20-item mood scale, was administered to all participants. Ten questions pertain to positive affect and 10 questions consider negative affect. Positive affect (PA) descriptors include attentive, interested, alert, excited, enthusiastic, inspired, proud, determined, strong, and active. Negative affect (NA) consists of five categories that each contain two terminologies: distressed and upset (distressed category), hostile and irritable (angry category), scared and afraid (fearful category), ashamed and guilty (guilty category), and nervous and jittery (jittery category). Participants were asked to rate their level of association, in the present moment, with the words presented to them using a 5-point Likert-type scale ranging from 1 (*very slight or not at all*) to 5 (*extremely*). The

PANAS asks participants to rate their level of affect, how they feel, during a variety of different points in time, including the present moment, today, past few days, past few weeks, past year, and, generally. For the purpose of the present study, participants rated the extent to which they felt a particular way in the present moment.

Measures of reliability for the different time points using coefficient alpha are both consistent and significant, with an alpha of .89 for present-moment PA and .88 for past-year PA. Negative affect results were similar, with past-moment ratings of .85 and past-year ratings of .87 (Watson et al., 1988). The PANAS allows for scoring independently for the dichotomous dimensions: positive affect and negative affect. Scores for each dimension range from 10 to 50, with low levels of negative affect revealed by lower scores and with high levels of positive affect denoted by higher scores. Watson et al.'s (1988) initial study on reliability found significant internal consistency in a nonclinical sample. Alphas ranged from .86 to .89 for PA and from .84 to .87 for NA. Additionally, a negative correlation was found between PA and NA, showing dimensions as orthogonal. Watson et al. summarized that "the PANAS scales provide reliable, precise, and largely independent measures of Positive Affect and Negative Affect, regardless of the subject population studied or the time frame and response format used" (p. 1067).

### **Measures: Correlations**

#### **The interpersonal reactivity index.**

The Interpersonal Reactivity Index (IRI) is a 28-item scale that measures cognitive and emotional empathy using a multidimensional approach (Davis, 1980). This

measure is unique because it looks at both cognitive and emotional empathy, while extant measures are able to examine only one form of an individual's empathic responses (Davis, 1983). The IRI is comprised of four subscales. Each subscale consists of as many as seven questions. The subscales are (a) perspective-taking (PT; how participants attempt to embrace the views of others), (b) fantasy (FS; how participants assume the perspective of fictional characters), (c) empathic concern (EC; how participants reveal concern and compassion for others), and (d) personal distress (PD; how participants express negative feelings, such as anxiety, as a result of the negative feelings of others).

An example of a PT question is, "I try to look at everybody's side of a disagreement before I make a decision." An example of an FS question is, "I daydream and fantasize, with some regularity, about things that might happen to me." An example of an EC question is, "I often have tender, concerned feelings for people less fortunate than me." An example of a PD question is, "In emergency situations, I feel apprehensive and ill-at-ease."

Participants are asked to rate the extent to which the statement describes them using a 5-point Likert-type scale from A (*does not describe me well*) to E (*describes me very well*). Scores for each subscale range from 0 to 28, and some of the items are reverse scored. The IRI is not designed to offer a global measure of empathy. Rather, each subscale score is examined individually to increase the precision of detecting different forms of empathy. The IRI is also not designed to be interpreted in dichotomous terms, i.e., high versus low empathy. Instead this inventory assesses the score as a continuous variable of empathy (Konrath, 2013).

Although the literature about empathy, gender differences, and the measurement of both contains much discussion and debate, women consistently score higher in all subscales, consistent with much prior research. When examining the convergent validity of the IRI, PT was associated with cognitive empathy, and emotional empathy was positively correlated with EC. Concurrent validity was found in similarly expected ways; the subscales EC and PT were associated with more positive features, that is, high self-esteem and positive social functioning (Konrath, 2013). In terms of test-retest reliability, results from the IRI are statistically stable. Davis (1980) used the IRI with a sample of 109 undergraduate students to examine reliability over time (i.e., a lapse of 60-75 days). He observed correlations ranging from .61 to .79 for male students, and correlations ranging from .62 to .81 for female students. There is significant evidence of the internal reliability of the IRI. Researchers found that the alpha coefficients of male and female students never varied more than .3 from each other at any given time and that all subscale scores fell between .70 and .78 (Davis, 1980).

#### **Attitudes toward mental illness.**

This scale consists of a two-statement measure that assesses attitudes toward mental illness (Centers for Disease Control and Prevention et al., 2012). It is widely used in diverse populations to assess lay persons' feelings about mental illness, is measured on a 7-point Likert-type scale ranging from 1 (*Strongly Disagree*) to 7 (*Agree Strongly*). The two statements are "Treatment can help people with mental illness lead normal lives" and "People are generally caring and sympathetic to people with mental illness." This measure was included in the Behavioral Risk Factor Surveillance System (BRFSS),

which collects information throughout the United States on health behaviors, risks, prevention, and practices. This measure has acceptable construct validity in determining attitudes toward recovery from mental illness (Kobau, Diiorio, Chapman, & Delvecchio, 2010).

### **Demographic information.**

Information was gathered through a demographic questionnaire that asked various questions about: age, years on the force, training, and previous use of a weapon. Demographic questions were selected that were associated in prior research more generally with police use of force.

### **Procedure**

A sample of transit police officers completed a battery of questions, scales, and assessment materials as part of a larger host study exploring a series of Fourth Amendment challenges to law enforcement. All the data collected from the larger host study were coded and prepared for analysis. A smaller data set was created for this dissertation from the larger data set.

Data collection took place in the police headquarters in March 2016. This police department is an urban and regional transportation agency and authority. The department offers public transportation ranging from buses and subways to commuter rail service. Participants received the questionnaires for this subset of the research program over a period of 4 weeks (in groups of 20 participants over the course of a month). They were given an overview of the larger research initiative, at which point informed consent was obtained. Participants were told that, as part of a larger police research initiative (“host

study”), officers would be asked to respond to a number of fact patterns regarding their feelings and perceptions.

The survey consisted of three parts. All participants were asked to complete the survey in order of Parts 1, 2, and 3, without skipping or jumping sections. In Part 1, the participants were given two vignettes to read with questions that needed to be answered related to the corresponding vignette. They were asked to complete the PANAS immediately after responding to both of the use-of-force vignettes. The second part contained two measures, the IRI and Attitudes Toward Mental Illness. This section was intended to gain information on qualities and characteristics related to policing that were unique to the officer. Last, in Part 3, participants were asked a variety of demographic questions related to their personal experiences.

When completed, questionnaires were returned face down to a bin. All participants received a letter describing the study and larger research program in greater detail, with instructions for obtaining a summary of the results, once completed, along with contact information to use to obtain answers to any additional questions.

## Chapter 4. Results

### Power Analysis

With an alpha of .05 and estimating a medium effect size of .4, a total sample size of 140 (70 per condition) was determined to be required to obtain statistical power of .80 for the primary hypothesis (Cohen, 1988).

### Descriptive Statistics and Randomization

A total of 140 transit officer participants were asked to read two vignettes that involved hypothetical scenarios in which they were encountering an individual engaging in a criminal activity. Participants were randomly assigned, in blocks of 10 (to ensure relatively equal group sizes), to read either two vignettes involving perpetrators displaying overt signs of mental illness ( $n = 72$ , 51.4% — experimental condition) or two vignettes involving perpetrators engaged in the same criminal acts but not displaying any signs of mental illness ( $n = 68$ , 48.6% — control condition). As displayed in Table 1, study participants had a mean age of 39.77 years ( $SD = 9.4$  years) and a mean length of service of 12.37 years ( $SD = 8.5$  years). All but two of the participants who reported their gender were male (98.3%,  $n = 118$ ). Of the participants, 48% ( $n = 60$ ) had a formal record of disciplinary action, 75% ( $n = 98$ ) had taken their service gun out of its holster at least once in the course of duty, 94% ( $n = 123$ ) had presented or used a police-issued weapon (e.g., baton, Taser, or chemical spray) at least once in the course of duty, and 14% ( $n = 16$ ) reported a history of personal mental-health issues.

Table 1  
*Descriptive Statistics*

Variables	<i>N</i>	Sample %/ <u>M</u> (SD)
Highest Grade Completed ( <i>n</i> = 124)		
GED	1	1%
HS diploma	58	47%
Associates	29	23%
Bachelor's	31	25%
Postgraduate	5	4%
Crisis Training ( <i>n</i> = 83)		
Yes	46	55%
Ethnicity ( <i>n</i> = 109)		
White	73	67%
Black/African American	22	20%
Other	14	13%
Gender ( <i>n</i> = 120)		
Male	118	98%
Female	2	.02%
Formally Disciplined ( <i>n</i> = 125)		
Yes	60	48%
Firearm Out ( <i>n</i> = 131)		
Yes	98	75%
Weapon Out ( <i>n</i> = 131)		
Yes	123	94%
Personal Mental-Health History ( <i>n</i> = 117)		
Yes	16	14%
Age		39.77 (9.4)
Years Served		12.37 (8.5)

*Note:* GED = general equivalency diploma. HS = high school.

A check of randomization revealed that the variance in these demographic variables was equally distributed across the two study conditions. As shown in Table 1, no significant between-group effects were found for age,  $F(1, 110) = .84, p = .36$ ; gender,  $\chi^2(1, 140) = 2.2, p = .23$ ; ethnicity,  $\chi^2(2, 140) = 2.2, p = .33$ ; years of service,  $F(1, 115) = .92, p = .34$ ; years of education,  $\chi^2(4, 140) = 3.1, p = .54$ ; prior crisis training,  $\chi^2(1, 140) = 1.3, p = .18$ ; history of formal discipline,  $\chi^2(1, 140) = .62, p = .27$ ; prior withdrawal of a firearm,  $\chi^2(1, 140) = .16, p = 1.5$ ; prior withdrawal of a weapon,  $\chi^2(1, 140) = 0.12, p = .60$ ; or personal history of mental illness,  $\chi^2(1, 140) = .93, p = .24$ .

### **Assumptions**

Generally, five assumptions should be satisfied for a two-way repeated-measures ANOVA: (a) it must have a continuous dependent variable (force, negative affect), (b) it must have two within-subject factors where each factor consists of two or more levels, (c) it must not have significant outliers in any cells of the data (combinations of the two within-subject factors), (d) the dependent variable should be approximately normally distributed for each of the independent variables, and (e) variance of the differences between levels should be equal (i.e., assumption of homogeneity of variances).

The first two assumptions listed were met as a result of the design. Regarding the third assumption, there were no outliers as assessed by examination of the studentized residuals for values  $\pm 3$ . There were lower ratings of use of force for the train vignette for three participants, who reported their use of force as a 1 (officer presence). In the Dunkin Donuts vignette, two participants reported their use of force as a 2 (verbalization). For the fourth assumption, the amount of force for the train vignette

(vignette 1) in the control condition had a skewness of -2.52 ( $SE = .29$ ) and kurtosis of 8.82 ( $SE = .57$ ). The amount of force in the train vignette in the experimental condition had a skewness of -2.01 ( $SE = .28$ ) and kurtosis of 4.28 ( $SE = .56$ ). The amount of force in the Dunkin Donuts vignette for the control condition had a skewness of -1.27 ( $SE = .29$ ) and kurtosis of 1.87 ( $SE = .57$ ). The amount of force for the experimental condition of the Dunkin Donuts vignette produced a skewness of -1.67 ( $SE = .28$ ) and kurtosis of 4.30 ( $SE = .56$ ). These results, in combination with visual observation of the distribution, indicate that the results were negatively skewed. The two-way repeated-measures ANOVA procedure, however, is considered relatively robust to violations of normality. For reasons offered by the central limit theorem, the two-way repeated-measures ANOVA typically still provides valid results with larger sample sizes. Regarding the fifth assumption, the sphericity of the interaction effect was not significant ( $p = .25$ ), indicating that the assumption of sphericity for the two-way interaction (condition by vignette) was not violated.

### **Hypothesis 1**

A two-way ANOVA with repeated measures on one factor was conducted to determine whether there was a statistical significance on use of force between transit officers reading a vignette involving an encounter with a suspect engaging in illegal activity with or without overt signs of mental illness. The independent variable included a between-subjects variable, signs of mental illness, and a within-subject variable, two different vignettes. The dependent variable was the degree of force that was selected in response to the offender's behavior. An alpha level of .05 was used for this analysis.

Results for model assumptions of normality, homogeneity of covariance, and linearity were satisfactory. There was no statistically significant interaction in the amount of force used between the conditions and the vignettes,  $F(1, 139) = 1.36, p = .25$  (see Figure 1). The result of the main effect of vignettes was significant,  $F(1, 139) = 87.33, p < .001$ , but there was no significant between-group main effect (mentally ill vs. non-mentally ill) on use of force,  $F(1, 139) = 1.36, p = .25$  (see Table 2).

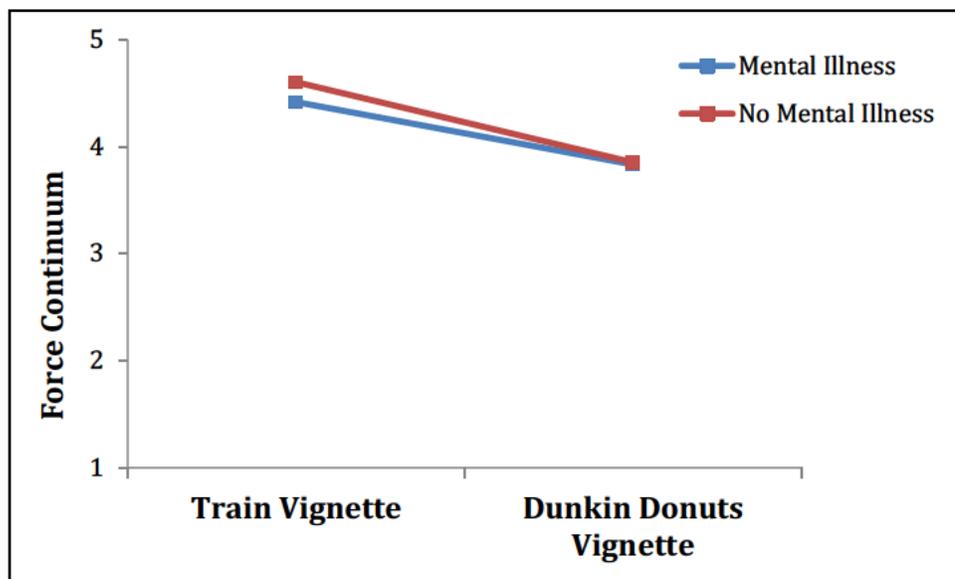


Figure 1. *Repeated-measures ANOVA: Main and Interaction Effects—Use of Force*

Table 2

*Repeated-Measures ANOVA: Main and Interaction Effects—Use of Force*

Variables	<i>N</i>	<i>df</i>	<i>F</i>	Sig.
Vignette X condition	140	1	1.36	.25
Vignette	140	1	87.33	< .001
Condition	140	1	1.36	.25

## Hypothesis 2

A two-way ANOVA with repeated measures on one factor was conducted to determine whether there was a statistical significance on negative affect between transit officers reading a vignette involving an encounter with a suspect engaging in illegal activity with or without overt signs of mental illness. The independent variable included a between-subjects variable, signs of mental illness, and a within-subject variable, two different vignettes. The dependent variable was officers' degree of negative affect that was experienced in response to the suspect's behavior. An alpha level of .05 was used for this analysis. Results for model assumptions of normality, homogeneity of covariance, and linearity were satisfactory. There was no statistically significant interaction in the amount of force used between the conditions and the vignettes,  $F(1, 139) = .37, p = .54$  (see Figure 2). The result of the main effect of the vignettes was significant,  $F(1, 139) = 14.12, p < .001$ , but there was no significant between-group main

effect (mentally ill vs. non-mentally ill) on negative affect,  $F(1, 139) = .67, p = .42$  (see Table 3).

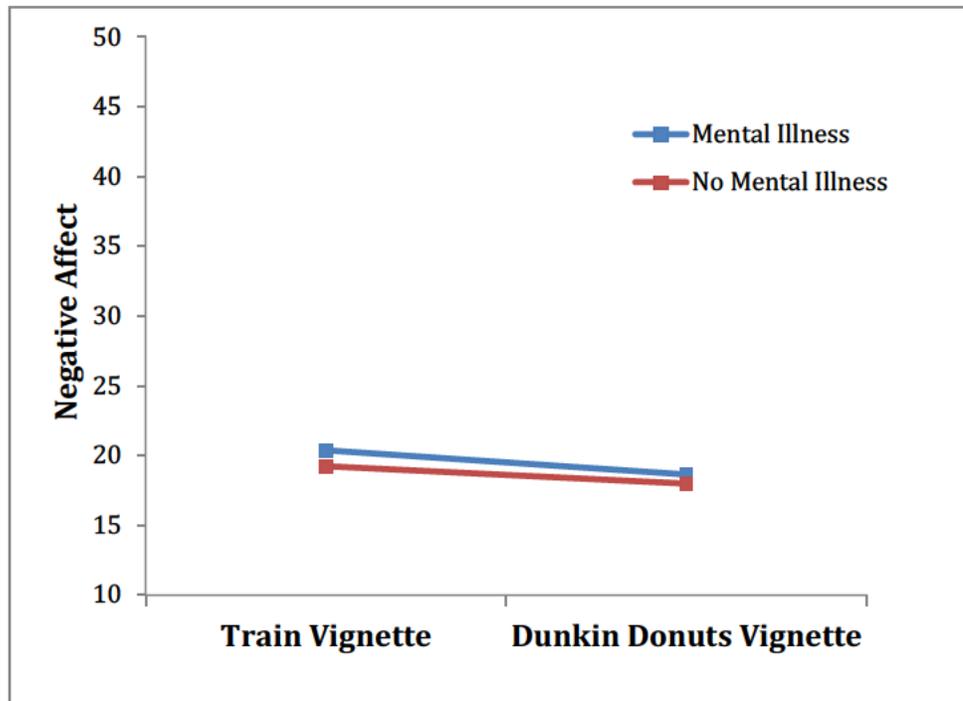


Figure 2. *Repeated-measures ANOVA: Interaction Effects—Negative Affect*

### Exploratory Analyses

Bivariate (Pearson's) correlations were conducted between the following variables: (a) the amount of force in the train vignette, (b) the amount of force in the Dunkin Donut vignette, (c) empathic concern, (d) attitude toward mental illness ("Treatment can help people with mental illness lead normal lives"), (e) attitude toward mental illness ("People are generally caring and sympathetic to people with mental

Table 3

*Repeated- Measures ANOVA: Main and Interaction Effects – Negative Affect*

Variables	<i>N</i>	<i>df</i>	<i>F</i>	Sig.
Vignette X condition	140	1	.67	.42
Vignette	140	1	14.12	< .001
Condition	140	1	.37	.54

illness”), (f) years of service, and (g) age. As depicted in Table 4, significant positive correlations were found for the amount of force in the train vignette and the amount of force in the Dunkin Donut vignette,  $r = .25, p < .003$ ; empathic concern and attitude toward mental illness (“Treatment can help people with mental illness lead normal lives”),  $r = 2.79, p < .001$ ; empathic concern and attitude toward mental illness (“People are generally caring and sympathetic to people with mental illness”),  $r = .171, p < .043$ ; and years of service and age,  $r = .847, p < .000$ . Bivariate correlations were run individually for experimental and control conditions but revealed similar correlations with significance on the same variables as the entire sample. Moderator analyses were not conducted because there were no significant differences in correlations across conditions and/or significant between-condition effects.

Table 4

*Inter-item Correlations: Demographic and Dependent Variables*

Variable	Use of force: train	Use of force: Dunkin	Empathic concern	Attitudes toward MI 1	Attitudes toward MI 2	Years of service	Age
Use of force: train	1						
Use of force: Dunkin	.25**	1					
Empathic concern	.03	.02	1				
Attitudes toward MI 1 <sup>a</sup>	.09	-.03	.28**	1			
Attitudes toward MI 2 <sup>b</sup>	-.12	.02	.17*	.15	1		
Years of service	-.13	.02	-.12	.03	-.03	1	
Age	-.11	.02	.01	.09	-.01	.85**	1

<sup>a</sup>Attitudes toward MI 1 represents Question 1: "Treatment can help people with mental illness lead normal lives."

<sup>b</sup>Attitudes toward MI 2 represents Question 2: "People are generally caring and sympathetic to people with mental illness."

\*  $p < .05$ , two-tailed. \*\*  $p < .01$ , two-tailed.

### **Chapter 5. Discussion**

At about 10:45 p.m. on October 3, 1974, Memphis Police Officers Elton Hymon and Leslie Wright were dispatched to answer a “proowler inside call.” A suspect pushed past the conductor on Warminster Train #402, stating that he was not going to pay. He then took a seat on the train. You, the assigned officer, were called to the car by the conductor and observed the suspect, who was approaching passengers and screaming, “I bless you as the son of God. I forgive you, you must atone for your sins!” As the passengers did nothing, the suspect became more agitated, stuttering, spitting, and throwing his fists in the air. When the suspect saw you, he took out and began waving a knife that had previously been concealed in his back pocket. The suspect growled and shouted an incoherent string of words and positioned his body to lunge at you. You assumed a defensive position after quickly moving passengers as far away from the suspect as possible.

Do police officers think that the use of greater force is justified with suspects who display signs of mental illness as compared with suspects who display no signs of mental illness? Do officers who read vignettes involving suspects displaying signs of mental illness experience a higher degree of negative affect compared to officers exposed to vignettes involving suspects displaying no signs of mental illness? These questions capture the two central hypotheses in this dissertation.

The first hypothesis predicted that officers exposed to vignettes involving suspects displaying signs of mental illness will use greater force compared to officers exposed to vignettes involving suspects displaying no signs of mental illness. However,

the findings failed to support this hypothesis, as officers in both conditions used similar levels of force, with officers in both conditions using more force in the vignette in which the suspect brandished a weapon (knife).

Hypothesis 2 predicted that officers exposed to vignettes involving suspects displaying signs of mental illness will experience a higher degree of negative affect compared to officers exposed to vignettes involving suspects displaying no signs of mental illness. This hypothesis was also not supported, as no between-condition differences were found for negative affect.

Finally, the exploratory analyses found no significant relationship between officer characteristics (i.e., age, years of service, empathy, and attitudes toward mental illness) and use of force in either vignette.

The assumptions behind Hypotheses 1 ( $H_1$ ) and 2 ( $H_2$ ) anticipate behavioral and affective variation on the part of participants in responding to vignettes in which suspects display overt signs of mental illness or no overt signs of mental illness. The behavioral differences anticipated with  $H_1$  included the kind of variation in perceived reasonableness of the use of force that compensates for expected gaps in rationality found in suspects in the experimental condition.  $H_2$  assumed that the Positive and Negative Affect Schedule (PANAS) would reveal the kind of affective differences that reflect a participant's ability or inability to confront, tolerate, and accommodate behavior associated with mental illness. These assumptions, and others, may have taken the form of four outcomes that include accommodation, which is a form of recognition of mental illness, and compensation, which is the calibration of force levels: Over Accommodate/Compensate;

Under Accommodate/Compensate; Reasonably Accommodate/Compensate; and Don't Accommodate/Compensate (reflecting the results of this dissertation).

In spite of some strong support in the literature for both  $H_1$  and  $H_2$ , the results fail to reject the null hypothesis. Interpretation of the results of this study show either that the methods and approaches to examine the alternative hypotheses are inadequate or, more concerning, police do not consider or take into account the mental-health status of suspects. If the former, distinct lessons are to be learned from the methods used or not used in this study. These lessons include considerations regarding the coding used, a ceiling effect from "overly severe vignettes," vignettes that fail to capture the complexity of real-world interactions, and/or the fact that both vignettes involved suspects attempting to attack the responding officer.

If the latter, however, officer training and awareness of mental illness must be promptly and directly addressed (Morabito et al., 2012). Police are legally obligated to use the amount of force "that represents the minimal amount of force necessary to reduce the immediate threat" (Philadelphia Police Department, 2015). How is the threat assessed? Beyond matters of training and awareness, these findings may raise significant legal concerns. After all, the use of force by police is judged, at least legally, by the objective test (i.e., intuitions about the reasonable calculations of an average officer) of what "reasonable" officers would have thought and felt in like circumstances. If officers do not, in fact, accommodate or compensate in reasonable ways to mental illness, little to no constitutional constraints will be placed on their use of force. That is, the Fourth Amendment to the United States Constitution would not be offended by officer

overcompensation (i.e., the use of too much force) and no compensation (i.e., neglecting the mental-health status of the suspect). The results of this dissertation, therefore, leave open the possibility that the mental-health status of suspects may be entirely incidental to any judgment of the reasonableness of a police officer's use of force.

If police officers ignore the rationality of suspects with mental illness, they may be disregarding, more generally, the many psychological and behavioral differences associated with mental illnesses. This disregard, if true, would lend support to a societal neglect and social stigma of mental illness (Corrigan, 2004; Corrigan & Gelb, 2006).

Of course, use-of-force decision making should not be seen in isolation. Instead, people with mental illness, from offender to complainant, victim, and person in need come into contact with functionaries at every stage of the criminal-justice system. With each call for service, unique challenges extend the role of and challenge the capability of first responders. This role and associated challenges are recognized by specific departmental rules and directives cautioning officers, for example, that "Suspects may be physically or mentally incapable of responding to police commands due to a variety of circumstances including but not limited to alcohol or drugs, mental impairment, medical conditions, or language or cultural barriers. Officers should be mindful of this when making use-of-force decisions" (Philadelphia Police Department, 2015).

One reason mental illness may not have produced the hypothesized effects is that officers might have, to some degree, habituated to irrational behavior. Through experience interacting with people with mental illness, training, or both, police may already assume that many individuals act irrationally (Kaminski et al., 2004; Mulvey &

White, 2014). Relatedly, the results also may be explained by the possibility that interactions with suspects who are mentally ill are largely indistinguishable from those with suspects without a mental illness (Kerr, Morabito, & Watson, 2010). Alternatively, the fact that large police departments respond to thousands of calls about “emotionally disturbed persons” each year may result in routinized police responses to suspects presenting with less than rational behavior. Routinization, consistent with the criminalization hypothesis, may dull, if not mute, police responses to possible resistance from suspects who are mentally ill (Morabito, 2007).

The failure of support for the dissertation’s two hypotheses may be explained by the theory of procedural justice. Officers certainly may extend a brand of procedural fairness to all suspects, including those who are mentally ill, in ways that actively diminish the resistance of suspects while improving overall cooperation. Watson and Angell (2007) made a convincing case that suspect perceptions of fairness and justice are key to improved outcomes from police interactions with suspects who are mentally ill. These authors noted, for example, that “(I)n the content of a procedural justice framework, the focus is on the subjective experience of the process of the interaction with authority (such as ‘The officer treated me fairly’) rather than satisfaction with the outcome (such as ‘The officer should not have arrested me’; Watson & Angell, 2007, p. 789).

Upon reflection, the authors noted that officers’ use of force did not vary as a function of the suspect’s presentation of mental illness. Ideally, for reasons of substantive fairness, police would not discriminate against suspects on the basis of their

mental status. Use-of-force decisions would be made by police officers who are well trained and able to make force decisions based on the suspect's mental status, level of resistance, and threat. In this ideal world, mental status would be recognized as but one of many presenting characteristics of a suspect, not as the defining one or one that is guided by stigma and unjustified predispositions.

One should note that the average number of warnings issued by officers differed between the train and Dunkin Donuts vignettes. Justifiably, the average number of warnings was greater in the train vignette ( $M = 1.65$ ) than in the Dunkin Donut vignette ( $M = 1.01$ ) because the train vignette involved a deadly weapon. Greater force was used in the train vignette, with more resistance from the suspect and with greater potential risks of injuries to police and others, thus justifying additional warnings. This may seem counterintuitive, but additional warnings are generally given to suspects as they move up the force continuum.

### **Study Limitations**

As with all empirical research, possible threats to internal and external validity must also be considered. These threats may be magnified when analyzing secondary or archival data, where samples are drawn from "special" populations, and when psychometric measures and vignette surveys are used. After a brief discussion of possible study limitations, more substantive explanations for failing to reject the null hypothesis will be considered. The ways in which this research should inspire future work, including studies on diversity questions, will conclude the chapter.

**Vignettes.**

One factor that may have diminished the internal validity of study findings is the use of vignettes. Officers possibly may respond differently to suspect resistance in a vignette than they would on the scene. Also, vignettes may fail to capture the factual or ecological complexity of real-world interactions between police and suspects. These possibilities raise reasonable concerns about the internal and external validity of the findings. To address these concerns, this study (a) relied on interrater measures of vignette realism by a panel of three officers from different ranks and (b) drafted vignettes directly from the 2015 police case files, a year-long record of all cases during which officers interacted with suspects with an apparent mental illness.

Of course, no matter how factually accurate the vignettes are, police interactions with suspects, including those who are mentally ill, may evoke unique concerns for the officer's own safety or the safety of others not evoked by the vignettes. Actual use-of-force decisions are made in real-world contexts that may be impossible to completely recreate in a vignette questionnaire, no matter how factually realistic. However, a substantial body of research over more than 4 decades provides strong support for the value of vignette research methods, notwithstanding concerns with external validity (Gould, 1996; Hughes & Huby, 2004).

Police interactions with persons who are mentally ill are increasing but are still relatively rare. So, too, is the resort to more serious force, most particularly deadly force. For many participants, therefore, the questionnaire employed in this dissertation was likely entirely hypothetical. Certainly, the ability of officers who have very limited

experience with mental illness inside and outside of work to differentiate between serious versus less-than-serious presentations of mental illness is also limited.

### **Use of Self-report Measures**

In many instances, particularly when assessing potentially sensitive information, self-report measures may impact the validity and reliability of information obtained (Robinson & Clore, 2002). Notably, evidence of construct validity and reliability is considerable for the PANAS (Crawford & Henry, 2004; Watson et al., 1988). In addition, the anonymous assessment procedures used in the current study are likely to have mitigated some of these concerns.

### **Sample/Population**

Research that considers police perceptions of a suspect's dangerousness or resistance is difficult to conduct in the laboratory with college-student samples without significant sacrifices to external validity. The use of any one sample raises obvious questions about generalizability. This study is no different. Because this study was conducted in a single city jurisdiction, with a specific sample of law enforcement personnel, a determination of the degree to which the findings generalize to all law enforcement is impossible.

### **Substantive Explanations for the Null Hypothesis**

At least seven reasonable substantive explanations can be given for the study's failing to reject the null hypothesis. First, officers possibly do not interact with persons who are mentally ill frequently enough to recognize the signs or symptoms of mental illness. Second, officers may have difficulty imagining irrational resistance and, thus,

may be less likely to see irrationality as a likely determinant of reasonable use of force. Third, officers may not receive sufficient training on de-escalation techniques. Fourth, officers rarely use deadly force and, thus, may be less able to distinguish when it should be used. Fifth, officers may see all suspects who are escalating their resistance to force as potentially irrational, whether that irrationality comes from mental illness, substance abuse, or psychopathy. Sixth, given their relatively high rate of disciplinary charges, this sample of police officers was less capable than others of following known procedures and directives. Unfortunately, the research is scant on police disciplinary measures in local and municipal police departments, thus making comparisons here is very difficult. Finally, officer use-of-force decisions may, in part, be determined by their concern for their own safety and the safety of others. The mental status of the suspect may be significantly overshadowed by feelings of self-preservation and the desire for the safety of others.

These explanations pose new questions, including whether officers who are trained on linear models of the force continuum need specialized training in more complex conceptualizations of resistance. Will additional training in gauging justifiable use of force with suspects who are mentally ill result in better outcomes for both law enforcement and the mentally ill? If so, would such training make law enforcement select lower levels of force than would be justified to accommodate irrationality? Would irrationality move law enforcement to use more force than necessary to accommodate irrationality? Would additional police training allow officers to distinguish between and among serious mental illnesses and other causes of irrationality, for example, drug

intoxication? Would officer discrimination of illnesses result in better outcomes? Do the results offer any insights into suggestions for existing crisis intervention team programs? These questions, individually and collectively, require additional research. Answers to these questions would have significant impact on use-of-force policies and even more profound implications for the way in which suspects with mental illness are treated by the criminal-justice system.

### **Relevance of the Study to the Theory and Practice of Psychology**

Police are often first responders in situations that involve individuals who are mentally ill. In such situations, a lack of clinical knowledge and related training may combine in ways that result in injuries and the loss of life. The deinstitutionalization of mental-health-care facilities, along with other factors, has put police in the position of making custody versus treatment decisions for persons who are mentally ill—without much training (Lamb & Bachrach, 2001). Predictions of violence are very difficult to make, even for trained clinicians, and often result in false positives and negatives. For armed law enforcement officers who are insufficiently trained, making such predictions is fraught with errors that have potentially grave consequences.

The results of this dissertation suggest the value of developing the field of professional police psychology and the importance of increasing the number of mental-health-care professionals on staff not only to treat officers with mental-health issues, but also to further train and retrain officers to be better informed on mental-health issues.

**Possible Findings as Related to Future Work in the Area**

The premise of this dissertation, that linear use-of-force guidelines may lead to miscalculations with suspects experiencing mental illness, is concerning in several ways. First, public and professional recognition of the plight of persons who are mentally ill and untreated/unmedicated should be greater. The inability to find effective alternative solutions to the deinstitutionalization of individuals who suffer from severe mental-health disorders is part of the problem. The other part of the problem is that this new and growing class of deinstitutionalized individuals with mental illness increasingly comes into contact with law enforcement, putting generally unprepared and improperly trained police officers in the position of assessing mentally ill individuals' rationality and risk to public safety and of bringing them into the criminal-justice system in a safe, helpful, and professional manner, often with very little or no time for consultation or second thoughts. Persons with mental illness often have few social or financial resources, may have difficulty communicating, and are often inappropriate candidates for standard criminal-justice responses, including detention, adjudication, and incarceration. Rather, this population may be good, appropriate candidates for medication and treatment in public- and mental-health facilities. Second, there should be more outrage that the criminal-justice system readily accepts large populations of individuals who are mentally ill into jails and prisons, thereby punishing the "mad" as the "bad." In addition to the potential risk of mistreatment by the officers and other criminal-justice stakeholders, they may also face the risk of harm and predation by inmates in the correctional facilities. Third, the fact that this dissertation explores the "reasonableness" of using deadly force against

populations of untreated/unmedicated suspects who are mentally ill should lead to practical reforms from a greater collaboration between mental-health-care professionals and criminal-justice officials.

### **Possible Implications Related to Diversity and/or Advocacy**

Given a firm foundation of race-based differences, one should not be surprised that use-of-force decisions with suspects who are mentally ill turn, at least in part, on (a) race-determined calculations of the value of life, (b) race-based perceptions of dangerousness, and (c) race-based perceptions of guilt and deservedness of punishment (Adler et al., 2016). An exploration of the role of race in police use-of-force decision making with suspects who are mentally ill is undoubtedly important. Innovations in methods used to examine race-based effects in automobile stops and stop-and-frisk practices should be employed in use-of-force research. Grogger and Ridgeway (2006) and Ridgeway (2006), for example, found that allegations of race-based traffic stops were generally unsupported by a natural experiment comparing daytime and nighttime stops in Oakland, California, in spite of substantial anecdotal evidence to the contrary.

Nevertheless, future research on this topic should explore the role of suspect and officer race, gender, age, and sexual orientation on officers' use of force. As discussed earlier, research on the relationship between suspect race and officer use of force is already substantial. This work should also be extended to include officer demographics, including, but not limited to, race, ethnicity, gender, and socioeconomic status.

**Conclusion**

Police use-of-force decisions are important for the safety of communities and of officers, and as a powerful symbol of the state's authority to administer justice and ensure order. When police decisions are made with suspects who are mentally ill, their importance may be magnified. The law grants significant authority to police, as agents of the state, to use force that is reasonable in light of suspects' risk to others, the police, and themselves. This discretion is bounded by a police officer's experience, perceptions, and knowledge of the law. Linear use-of-force continuums, regularly used in police academies and as part of department policies, frame actual police decision making in ways that are entirely rational. The more force used that is both reasonable and justified, the less resistance is expected from a rational suspect. Thus, the movement from no force (i.e., officer presence and verbal command) to moderate force (i.e., physical control holds and OC sprays), less-than-lethal force (i.e., baton and electric control weapon), and then deadly force is sequential and, at least on the margins, predictable. This coordinated movement in both force and resistance movement, depicted in Appendix D, is reasonable if within the linear force bounds of  $F_1$  and  $F_2$ .

The challenge for first responders turns on the reasonableness of decision making when resistance is neither sequential nor predictable. The hypotheses examined in this dissertation assumed that officers would use force differentially, considering the rationality of the suspect as an important determinant of force levels. However, the data do not support a finding that this sample of police officers recognized the appearance of mental illness as part of their decision-making calculus. As discussed, this failure of

recognition may be an artifact or result of the methods or materials used. If it is not, a number of possible interpretations were previously offered that could account for the failure to reject the null hypothesis.

A practical problem that remains concerns the status quo of use-of-force practices in police departments throughout the United States. With limited training in crisis intervention, limited exposure strategies for de-escalating confrontations with persons with mental illness, and increasing numbers of calls for service involving suspects and complainants with mental illness, the default legal standard used to determine whether force is justified is an objective reasonableness test, one that considers the totality of circumstances.

In theory and in practice, deficits in police training and intervention strategies significantly increase the range of force options  $F_3$  and  $F_4$ , by setting the bar low with respect to what may justifiably be expected of a reasonable police officer. The reasonableness standard, quite perversely, grants wide discretion for police to stray from the narrower band of  $F_1$  and  $F_2$ . On occasions, this increased discretion in force options will likely result in the use of more force than necessary, as some iconic and tragic cases reveal. It may also result in other combinations of accommodation and compensation, equally off the mark of reasonableness. That the mental-health community allows the status quo to continue without cries for reform is, quite tragically, part of the greater disregard of mental illness in the criminal-justice system. There are costs to this disregard, in lives lost and lives changed forever.

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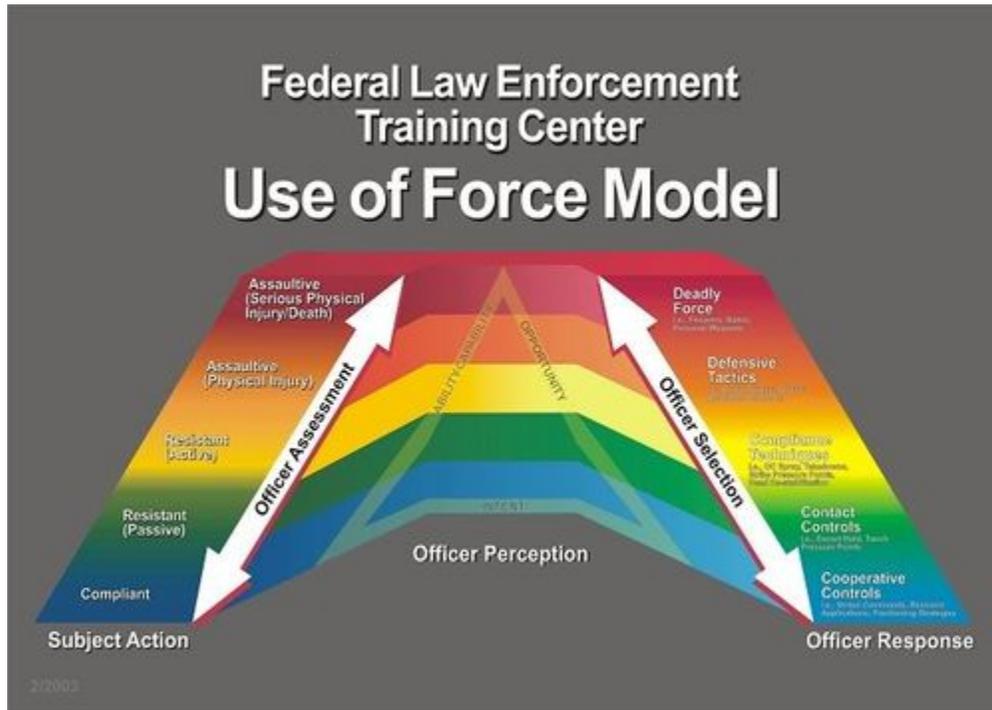
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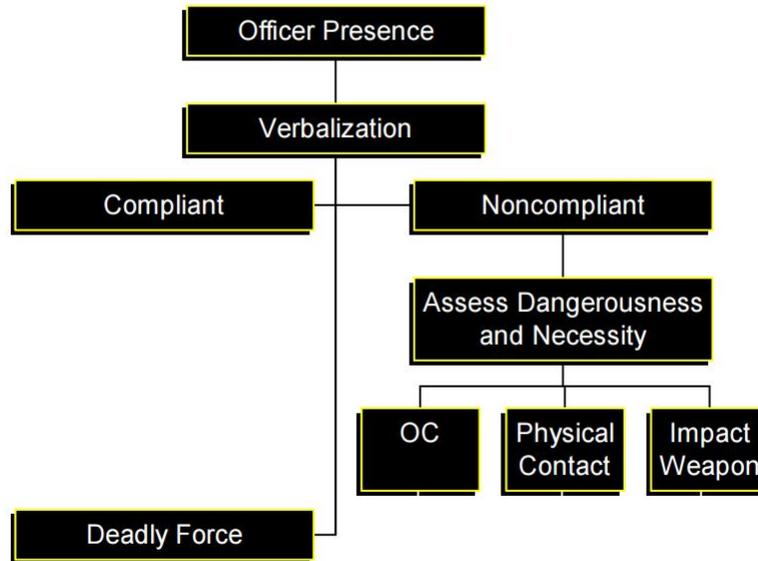
Appendix A



From D. Lind (2015), How do police departments train cops how to use force? Vox.com, retrieved March 28, 2018, from <https://www.vox.com/2014/9/5/6105373/police-allowed-to-force-shoot-taser-training-policy>

Appendix B

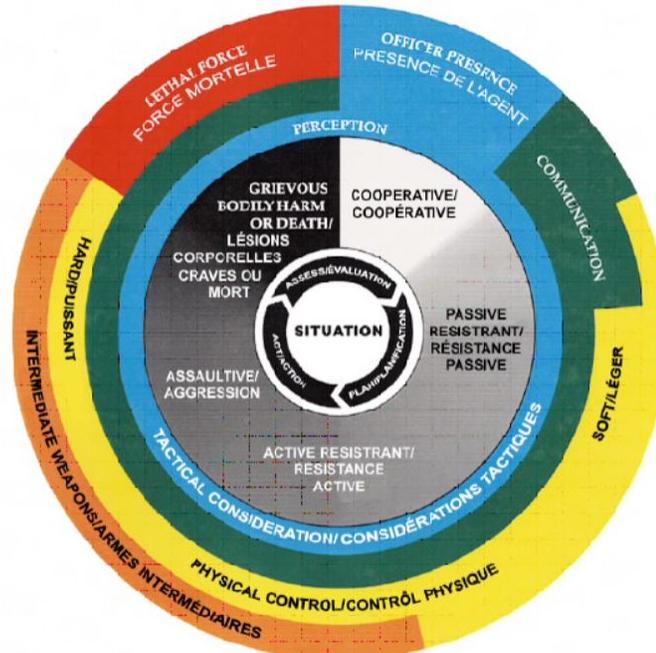
**FBI LEB, 11/97 “Suggested Use of Force Model”**



From T.J. Aveni, (2003), Force continuum conundrum, *Law and Order*, 51(12), 74-77.

Appendix C

**National Use of Force Framework  
Le cadre national de l'emploi de la force**



The officer continuously assesses the situation and acts in a reasonable manner to ensure officer and public safety.

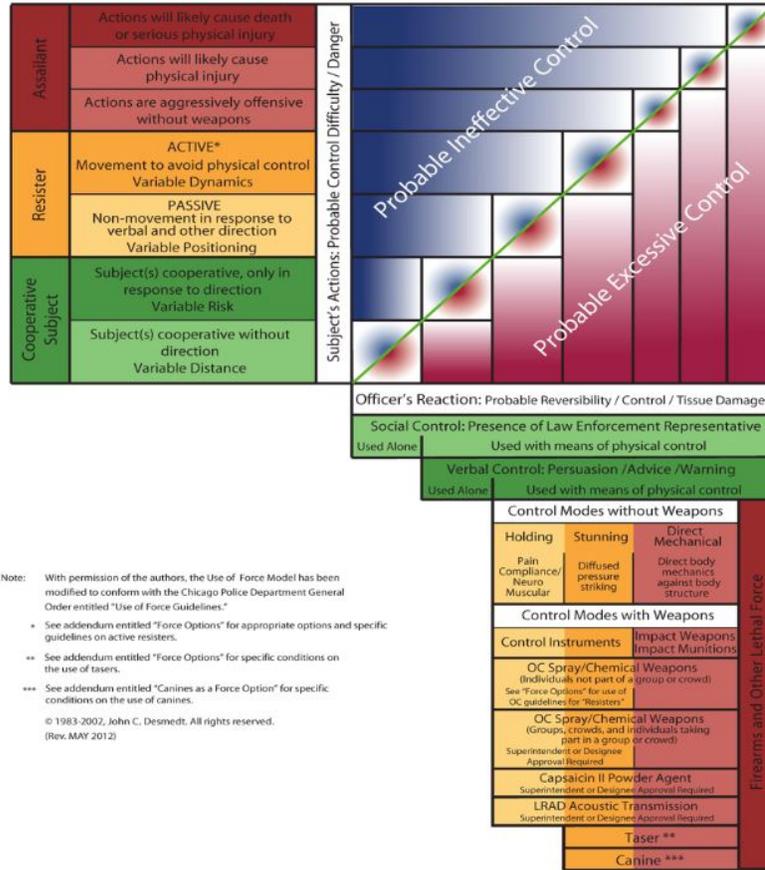
L'agent doit continuellement évaluer la situation et agir de manière raisonnable afin d'assurer sa propre sécurité et celle du public.

From Ontario Ministry of Community Safety and Correctional Services (2016), retrieved March 28, 2018, from [http://www.mcscs.jus.gov.on.ca/english/PSIS/BasicTesting/SecurityGuardStudyGuide/UseofForceTheory/SG\\_use\\_of\\_force.html](http://www.mcscs.jus.gov.on.ca/english/PSIS/BasicTesting/SecurityGuardStudyGuide/UseofForceTheory/SG_use_of_force.html)

Appendix D



USE OF FORCE MODEL  
CHICAGO POLICE DEPARTMENT



Note: With permission of the authors, the Use of Force Model has been modified to conform with the Chicago Police Department General Order entitled "Use of Force Guidelines."

- \* See addendum entitled "Force Options" for appropriate options and specific guidelines on active resisters.
- \*\* See addendum entitled "Force Options" for specific conditions on the use of tasers.
- \*\*\* See addendum entitled "Canines as a Force Option" for specific conditions on the use of canines.

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From Chicago Police Department (2012), General Order G03-02-01, The use of force model, retrieved March 28, 2018, from <http://directives.chicagopolice.org/directives/data/a7a57be2-128ff3f0-ae912-8fff-cec11383d806e05f.html>