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MORE THAN MERE SYNONYMS: EXAMINING THE DIFFERENCES  
BETWEEN CRIMINOGENIC THINKING AND CRIMINOGENIC ATTITUDES

by

David W. Gavel

A Dissertation  
Submitted to the Graduate School  
and the Department of Psychology  
at The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

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August 2017

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## ABSTRACT

### MORE THAN MERE SYNONYMS: EXAMINING THE DIFFERENCES BETWEEN CRIMINOGENIC THINKING AND CRIMINOGENIC ATTITUDES

by David W. Gavel

August 2017

More than 75% of prison inmates are arrested for a new crime within five years of being released from prison. Known as recidivism, this trend of repeated criminal activity accounts for more than half of annual prison admissions, and rehabilitative programs demonstrate varying degrees of success in reducing recidivism. Andrews, Bonta, and Hoge (1990) demonstrated that offenders are less likely to recidivate when they receive services that match their assessed level of risk factors (e.g., history of violence), intervention needs (e.g., mental health diagnosis), and responsivity (e.g., ideal learning environment). Criminogenic cognition, mental events (e.g., thoughts, attitudes, and beliefs) often exhibited by criminal offenders and thought to promote antisocial behavior, are among the greatest needs that must be addressed to decrease recidivism; however, the distinction between thought content and thought process is not sufficiently clear in the literature. The current study aimed to distinguish these two domains of criminogenic cognition and examine their relationship to one another. Specifically, four common measures of criminogenic thinking and attitudes were compared. Correlational analyses provided support for the prediction that the two constructs are related yet quantitatively distinct. Problems with the data prevented the successful completion of the primary data analysis,

leading to inconclusive results. Possible explanations for these results and suggestions for future research are discussed.

## ACKNOWLEDGMENTS

First, I am grateful to my research mentor, Dr. Jon T. Mandracchia, for his significant contributions to my development as a researcher and to this body of work. From conceptualization to defense, the value of your input at every stage cannot be overstated. Thank you for providing an environment where science thrives and knowledge is gained without ever losing sight of the true joy that can be found in the simplest aspects of life. From Bem's hourglass to the occasional inspiration of Bruce, your leadership of Team Mandracchia was truly priceless.

Secondly, many thanks to my fellow research team members for contributing to the successful completion of this work through intellectually stimulating conversations, intangible support, and the pursuit of professional development. Of particular importance, I would like to thank Rose and Will for demonstrating what it takes to be successful in the classroom, the research lab, and the therapy room. Each domain plays a part in the development of a good researcher of the behavioral sciences and you both are top notch.

Finally, I would like to acknowledge Dr. Eric Dahlen, Dr. Melanie Leuty, and Dr. Richard Mohn for the statistically and clinically significant amount of resources they have put into the development and completion of this dissertation. As members of my committee, they have gone above and beyond to provide me with guidance and wisdom as I developed the firm and foundational skills of a researcher.

## DEDICATION

To my Redeemer: May the words on these pages, as a product of my life, be dedicated in service to my Lord and Savior Jesus Christ. While I was yet lost, You freely gave what could not be taken so that I may receive what could not be earned! It is because of this act of grace that I choose to take up my cross and follow him. For to live is Christ and to die is gain!

To my bride, April: Since the moment you said I do, your love has carried me through life's joys, tears, laughter, and fears. Your commitment to our shared journey through times of doubt and uncertain adventure has been unwavering. Your relentless and unquestioning support continues to fill my sails in the still of the night. I simply cannot fathom a world without your companionship. You truly are my love, my life, and my inspiration.

To my beloved children David, Haley, and Kayla: Mere words cannot describe the significant ways in which your miraculous lives have brought meaning to my otherwise incomplete existence. I am drawn to your smiles. I am captivated by your imaginations. I am forever committed to living a life worthy of being called your Daddy! Let the Word guide you as you shine your light forever.

To my Mom, Dad, and Tammy: I am eternally grateful for the many years of prayer, encouragement, and enduring love you have poured out. Through the years, your support has never faltered. Though your faith was often tested, you remained steadfast in Him and never gave up on me. May this body of work, and all that it represents, symbolize the fruits of your labor toward the goal of instilling in me a true faith that through Christ, all things are possible!

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## CHAPTER I – INTRODUCTION

Crime in the United States is a problem with many negative financial and social impacts. According to the United States Bureau of Justice Statistics, more than half of the 703,000 inmate admissions to state and federally operated correctional facilities in 2010 were the result of criminal violations of supervised release, parole violations, or new crimes committed by previously incarcerated individuals (Guerino, Harrison, & Sabol, 2011). Such repeat criminal behavior is known as recidivism and captures any criminal behavior by a released offender that leads to arrest or conviction. Given the significant contribution that recidivism makes to annual prison admissions, it plays a significant role in the absorption of scarce financial resources each year. In their recently published report of outcomes related to offenders released from state prisons in 2005, Durose, Cooper, and Snyder (2014) reported that more than 67% of offenders are arrested for a new crime within three years and more than 76% are arrested for a new crime within five years following release. On average, state and federal prisons funnel a combined \$65 billion and significant personnel resources into the operation of correctional facilities (James, 2014; Kyckelhahn, 2014; Stephan, 2004). Many of these resources are allocated to the development and implementation of rehabilitation programs intended to decrease recidivism. These programs traditionally include education (e.g., GED classes), mental health treatment (e.g., anger management or psychotherapy), and vocational training (e.g., Federal Prison Industries). The purpose is to fulfill the expressed mission of the judicial system to “rehabilitate” criminal offenders and increase

their chance of successfully reentering society without further criminal sanctions. Although American laws and policies uphold offender rehabilitation as a worthwhile ideology (Rotman, 1986), the extent to which these programs are successful has not always been clear.

As recently as the late 1980's, a popular opinion among North American scholars and policy-makers was that rehabilitation efforts were ineffective and that only systematic societal changes could reverse the annual trend toward increased criminal behavior (Annis, 1981; Fishman, 1977; Halleck, 1974; Whitehead & Lab, 1989). This perspective was most notably championed by Martinson's (1974) harsh criticism of the rehabilitation movement after he and his colleagues analyzed data from more than 200 empirical articles and found no evidence of positive outcomes linked to rehabilitation programs such as educational programming, mental health treatment, skill-training, and milieu-style treatments. Whitehead and Lab (1989) reinforced this "nothing works" mentality when their own meta-analysis duplicated the results of Martinson (1974) and found no evidence of positive effects of rehabilitation programs among a diverse set of incarcerated individuals and forms of treatment. Subsequently, these early and well-publicized conclusions about the ineffectiveness of rehabilitation efforts in the justice system fueled a social and political shift in perspective that moved away from rehabilitation and toward a more purely punitive model of institutionalization that viewed punishment itself as crime deterrence.

This deterrence-based perspective was derived from behavioral learning theory and research, which demonstrates that an organism will avoid objects or

behaviors that are associated with negative consequence (Skinner, 1974). Thus, proponents of this deterrence perspective suggest that harsh prison sentences serve as a negative consequence and effective means of motivating individuals to avoid criminal behavior (Black & Orsagh, 1978; Halleck & Witte, 1977). In the past, this rationale has fueled rigidly applied policies that lead to severe and often mandatory criminal sanctions for even minor crimes. One such policy is California's Three Strike Sentencing law (California Substance Abuse and Crime Prevention Act of 2000). Originally implemented in 1994, this voter-enacted law imposes mandatory sentences of 25 years to life for *any* individual convicted of a new felony offense with two or more prior "serious or violent" felony offenses. It is argued that fear of incarceration will deter first-time offenders and ensure that released offenders will be highly motivated to avoid subsequent criminal behavior due to fear of returning to prison (Brennan & Mednick, 1994). Unfortunately, mandatory sentencing and other deterrence-based policies are generally ineffective in reducing recidivism rates (Evans, Li, Urada, & Anglin, 2014).

In fact, the adjudication process itself may contribute to recidivism. Proponents of labeling theory contend that recidivism is a likely result once an individual is processed through the criminal justice system and becomes labeled as a criminal (Meade, 1974). It is speculated that becoming engaged in the criminal justice system is stigmatizing and that as individuals ascend through higher levels of adjudication, they become more likely to identify themselves as criminals and less likely to be deterred by the prospect of punishment (Ageton & Elliot, 1974). Chiricos, Barrick, Bales, and Bontrager (2007) found that criminal

offenders who were adjudicated, and therefore labeled as a convicted felon, were significantly more likely to recidivate within a two-year period than offenders arrested for comparable crimes but who had adjudication withheld. These effects were strongest for women, White offenders, and individuals older than 30 at the time of their first offense. Given that males, ethnic minorities, and younger individuals are overrepresented among prisoners, and considered to be at higher risk for recidivism (Durose et al., 2014), the findings of Chiricos et al. (2007) seem to suggest that the negative impact of a stigmatizing label may be most salient for individuals who might otherwise be considered low risk. Other research indicates that younger first-time offenders are at greater risk for recidivism than offenders who are first arrested at a later age (Barrett, Katsiyannis, & Zhang, 2010; Williams, LeCroy, & Vivian, 2014). Labeling theory accounts for this trend by explaining that younger offenders are in the process of establishing their own identity in relation to their environment and are therefore more likely than older offenders to adopt and internalize the criminal identity label.

Other research based on social learning (Bandura, 1986) and differential association (Sutherland & Cressey, 1955) theories goes further to suggest that the stigma associated with being labeled as a criminal contributes to the internalization of crime-promoting attitudes, values, and world perspectives, which ultimately are the primary force behind criminal behavior. From these perspectives, the ineffectiveness of criminal sanctions in the reduction of recidivism is due to the inability of punitive measures to address the underlying

causes of criminal behavior. As such, opponents of institutionalization as a crime deterrent argue that premature, harsh, and even mandatory prison sentences may exacerbate recidivism by stigmatizing individuals who might have benefited from an alternate form of intervention. In other words, appropriate methods of early intervention (e.g., community service) may decrease recidivism while harsh punitive measures may actually increase the likelihood for some to reoffend once they are released from prison.

In contrast to the “nothing works” attitude toward offender treatment, others argue that the perceived ineffectiveness of rehabilitation services and other methods of battling recidivism can largely be attributed to a failure to account for the psychology of criminal conduct (Andrews et al., 1990). The psychology of criminal conduct (PCC; Andrews & Bonta, 2010b) theory posits that clinically relevant and effective treatment must account for differences among offenders as well as variability in the types and levels of rehabilitation services that are available (Andrews, Bonta, & Wormith, 2006). Individual characteristics of an offender prior to incarceration, personal characteristics of correctional workers, variations in the content and process of available services, and changes that occur for the person and their circumstances while incarcerated (Andrews, et al., 1990) are all related to variability in the efficacy of treatment programs. To test this theory, Andrews et al. (1990) conducted their own meta-analysis of the same data used in the Whitehead and Lab (1989) study. They found that offenders were significantly less likely to recidivate if they were provided with “appropriate services” (i.e., services that matched their needs

based on individualized assessment of the four factors mentioned above) than offenders who received inappropriate services or no services at all (i.e., criminal sanctions only). Andrews et al. (1990) assert that the first step toward achieving desirable treatment outcomes is to thoroughly assess individuals for specific characteristics associated with recidivism and match them with a treatment program that includes components that are known to reduce recidivism among individuals with those characteristics. Moreover, Andrews et al. (1990) argued that failing to take these steps when planning and implementing rehabilitation programs assumes a “one size fits all” mentality to offender rehabilitation services and contributes to the “nothing works” conclusions of Martinson (1974) and Whitehead and Lab (1989).

Based on the significant findings of their meta-analysis and consistent with the recognized need for an updated method of offender risk assessment, Andrews et al. (1990) presented the Risk-Needs-Responsivity (RNR) model as a structured method for conceptualizing the individual differences of offenders across several domains that promote successful rehabilitation. The RNR model is founded on two main premises. The first is that factors of a person (e.g., thoughts) or environment (e.g., peer influence) are neither “criminal” nor “non-criminal.” Instead, these factors can be criminogenic, meaning that they can promote or facilitate criminal behavior, but they are not sufficient conditions for criminal behavior to occur. The second is that rehabilitation services are most effective when offenders are matched with appropriate services based on existing *risk* factors associated with reoffending, the dynamic *needs* of the



offender, and the type of program that the offender is most likely to *respond* well to.

The *Risk Principle* states that individuals are more likely to respond favorably to rehabilitation services when the services they receive are appropriately matched to the offender's level of risk. In context of the RNR model, *risk* does not refer specifically to a risk for violence or other threatening behavior. Instead, an offender's risk level refers to their risk of criminal recidivism based on a number of identified prognostic indicators. These indicators include a history of violence, an onset of delinquency prior to the age of 16, substance abuse prior to the age of 14, a family history of crime or substance addiction, prior failure to succeed in rehabilitation, the presence of Antisocial Personality Disorder or psychopathy, associating with other offenders or substance abusers, and a current age under 25 years. Although it might be tempting to conclude that those with the most significant prognostic indicators are a 'lost cause,' research has shown that high-risk offenders have the potential to show greatest reduction in recidivism rates. As such, it has been found that high-risk offenders achieve greater positive outcomes when they are provided with higher levels of service (i.e., more frequent supervision and accountability) and low risk offenders respond favorably to low levels of service (Andrews & Dowden, 2006).

The *Need Principle* addresses those unique components of an individual that can be targeted for change in rehabilitation programs. The RNR model states that each offender presents with a different constellation of dynamic

factors and characteristics that contributes to the maintenance of criminal behavior patterns (i.e., needs). The key component of the need principle is that unlike some risk factors, an offender's *needs* are dynamic, malleable, and otherwise subject to change. As a result, these dynamic needs represent intermediate targets, or goals, for treatment that can be addressed in order to bring about change (i.e., reduce recidivism). There are two main categories of needs. The first category, criminogenic needs, have a direct effect on criminal behavior such that eliciting positive change reduces the likelihood of future criminal behavior. Among the most common of these needs are criminogenic cognitions, which are specific thoughts and cognitive patterns that are common among offenders and thought to directly facilitate criminal behavior. Other criminogenic needs include current substance abuse, mental health problems, and criminal associations.

The second category, noncriminogenic needs, includes needs that co-occur with or are the direct result of criminal behavior. Low education and unemployment are among the most common noncriminogenic needs. Moreover, Andrews et al. (1990) identified the following "big four" needs as the strongest and most promising targets for change associated with reductions in recidivism: 1) increasing noncriminal behavioral responses to situations that might otherwise elicit criminal behavior; 2) developing healthy problem solving and coping skills; 3) identifying and reducing risky forms of antisocial cognition; and 4) replacing criminal associations with prosocial interpersonal relationships. Four additional needs added to the "big four" form the "central eight" most influential needs;

these additional four include the development of healthier interpersonal skills and relationships, increasing success at school or work, reducing substance use, and increasing involvement in activities that are inconsistent with criminal behavior (e.g., community volunteerism). Extensive research has shown that treatment is most effective when tailored to address the individual needs of an offender as targets for change (Andrews et al., 1990, 2011).

The final component of the RNR model, *Responsivity*, addresses noncriminogenic factors that are specific to the interaction between offender characteristics and various modes of available rehabilitation services. Examples include variable styles of learning (e.g., visual versus kinesthetic), mode of service delivery (e.g., group versus individual therapy), and the extent to which a form of treatment is known to be effective for eliciting change for the identified need (e.g., cognitive behavioral therapy for depression). When treatment accounts for these factors and adheres to the principle, the positive interaction between risk and treatment is strengthened (Andrews & Dowden, 2006). Conversely, failing to accommodate for the responsivity principle, such as when a lack of resources limits the treatment options and forces offenders into ineffective modes of treatment, can complicate and inhibit rehabilitation efforts (Andrews et al., 2006; Andrews & Dowden, 2006).

The Risk-Need-Responsivity model is a widely accepted method of matching offenders with appropriate services in order to decrease risk of recidivism. At the same time, there are areas in which the model can be refined through greater understanding of relevant constructs and the nature of their

relationship with criminal behavior. One of the model's "big four" dynamic needs, *criminogenic cognitions*, is prime for such advancement and has been the target of continuing research efforts over the past couple of decades.

Cognition is a broad term often used in reference to a number of mental events including thought, perception, attention, memory, comprehension, and learning. Therefore, *criminogenic cognition* is somewhat of an umbrella term broadly understood to include specific forms of these mental events that have been shown to promote criminal behavior. Although the literature is clear on this strong relationship between criminogenic cognitions and behaviors, there is no consensus on the best way to define the construct. As such, there is little uniformity in the terms used to describe criminogenic cognitions (e.g., criminal thinking styles, criminal attitudes, criminogenic thinking, antisocial attitudes, antisocial sentiments) and the measures used to assess them. As the RNR model was not developed to account for the intricacies of cognitive psychology, it does not differentiate these terms from one another nor specify certain cognitive events as more salient than others. Instead, the model refers only generally to crime-promoting cognitive factors that are pervasive among criminal offenders. As a result, this construct has been left open to interpretation and more importantly, differences in the way it is operationally defined in the literature. Furthermore, without a strong understanding of a "standard" definition for the construct, researchers and authors citing the RNR model as directly or indirectly related to their work are left to choose from a range of conceptually and empirically distinct definitions and terms for these criminogenic cognitions.

Some of the more common terms include criminal thinking styles (Walters, 1990), criminogenic thinking (Mandracchia & Morgan, 2011), criminal sentiments (Simourd & Van De Ven, 1999), and criminal attitudes (Mills & Kroner, 2001). To the credit of the model, a lack of uniformity in the operationalization and measurement has not prevented criminogenic cognitions from being established as one of the strongest predictors of criminal behavior. Instead, this variability presents the opportunity to conduct research that may lead to further differentiation between qualitatively different cognitive constructs and to examine the nature of their relationships with criminal behavior. Despite being described and measured in unique ways, the various terms for criminogenic cognitions are used interchangeably at times in the literature base to describe specific cognitive factors associated with criminal offenders that are thought to be at least partially responsible for the onset and maintenance of criminal behavior patterns. It has been suggested that this interchangeable use of terms has led to an assumption that the terms are synonyms, which overlooks the potential for different types of criminogenic cognitions (Walters, 2006).

When taken at face value, each term reflects the idea that anti-social and other maladaptive cognitive factors play a role in criminal behavior. However, when examined closely, these terms seem to be more than just synonyms that reflect each author's conceptualization of the same construct. Instead, research suggests that there are two overlapping yet distinct constructs being captured across these different terms. One of the constructs taps into patterns of active thought processes that seem to define *how* an offender integrates, manipulates,

and uses information about themselves in relation to their environment. The Psychological Inventory of Criminal Thinking Styles (Walters, 1995a, 2002) and the Measure of Criminogenic Thinking Styles (MOCTS, Mandracchia & Morgan, 2011) are two measures based on this process-oriented conceptualization of criminogenic cognitions. A second seemingly distinct construct taps into internalized thoughts, judgments, and opinions related to themselves and the world around them. This construct seems to closely mirror the more general construct of attitudes as it is concerned with *what* offenders think. The Criminal Sentiments Scale - Modified (Simourd, 1997; Simourd & Van De Ven, 1999) and the Measure of Criminal Attitudes and Associates (Mills, Kroner, & Forth, 2002) are two of the most prominent measures of the content-based conceptualization.

An emerging line of research suggests that although these two constructs (i.e., process versus content) are positively correlated (Mandracchia & Morgan, 2011), the low to moderate strength of the correlations suggests the presence of unique components within each. Some authors point to these relationships as evidence for one construct with multiple terms while others suggest that these constructs are overlapping yet unique domains of cognitive activity that influence criminal behavior differently and may very well influence one another (Kroner & Morgan, 2014, Mandracchia & Morgan, 2012; Walters, 2006). However, there is not enough direct empirical comparison of these constructs to determine if such distinction exists between these types of cognitions, and if so, the specific true nature of their relationship to one another. As such, additional research is necessary to evaluate the claim that a construct related to *what* offenders think

(e.g., criminogenic attitudes) is qualitatively different than one related to *how* offenders tend to think (e.g., criminogenic thinking), and that this distinction is important in better understanding, predicting, and preventing criminal behavior.

### Criminogenic Attitudes

The attitude construct, in general, has a long history in the literature of the psychological sciences. The field of social psychology has maintained a particular interest in attitudes given their established influence on the way individuals and groups of individuals interact with one another within the social environment. Allport (1935) was the first to operationally define the attitude construct when he stated that it is “a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations” (p. 810). Allport’s definition emphasizes that attitudes are a stable set of cognitive conditions that predispose an individual to respond to environmental stimuli based on the evaluative content of the attitude. More recent conceptualizations further emphasize that attitudes are evaluative in nature and create a “disposition to respond favorably or unfavorably to an object, person, institution, or event” (Ajzen, 1988, p. 4).

Many modern views agree that attitudes predispose an individual to respond in a specific way to environmental stimuli (Fazio, Blascovich, & Driscoll, 1992). In order to serve this function, an attitude must be a pervasive and accessible evaluation that guides the attitude holder to respond favorably or unfavorably to environmental stimuli related to the subject of that particular attitude. Indeed, attitudes are believed to be the source of information for a

process known as object appraisal, a cognitive function whereby existing knowledge about a “thought object” (i.e., any object that can be the content of a thought) is accessed in order to facilitate the process of deciding how to respond to that object (Smith, Bruner, & White, 1956). The process of object appraisal occurs quickly as an automatic function of the brain and allows for the efficient navigation of the approach-avoidance decision-making response (Fazio et al., 1992). In this way, attitudes are a “state of readiness” in that they inform the attitude holder about whether the stimulus is positive (e.g., approach) or negative (e.g., avoid). Decades of research have supported this conceptualization by demonstrating that attitudes are indeed positively correlated to a wide variety of healthy (e.g., exercise; Conner & Abraham, 2001) and harmful (e.g., smoking; Conner, Sandberg, McMillan, & Higgins, 2006) behaviors as well as other behaviors associated with personal risk (e.g., risky sexual behavior; Schutz et al., 2011). This influence is central to theories such as that of Ajzen’s (1991) theory of planned behavior. As the theory states, one’s intention to engage in a given behavior is the strongest predictor of whether the person will in fact engage in that behavior (Ajzen, 1991). However, intention is a latent construct heavily influenced by one’s attitudes toward the behavior. In this way, attitudes have an indirect but strong influence on human behavior through their ability to increase one’s intention to engage in that behavior (Ajzen, 1991).

Attitudes develop as the result of an individual’s interaction with and experiences in the environment (Fazio, 2007). Memory-based models suggest that attitudes begin as global evaluations of a particular object (e.g., person,



place, event, etc.) that are in long-term memory of the attitude holder (Fazio, 2007). Subsequent encounters with the same or similar object then lead the attitude holder to access memory of the initial evaluation, at which point that memory is either reinforced by a similar evaluation or challenged by an alternate one (Schuette & Fazio, 1995). When challenged, the evaluation may be altered or refuted in a way that prevents the evolution of the initial evaluation into a rigid and strongly endorsed attitude. However, when repeatedly accessed without challenge, the initial evaluation becomes an attitude, which is a stronger and more pervasive structure in the long-term memory of the individual (Schuette & Fazio, 1995). Once established, repeated recall of this cognitive evaluation has the effect of making the attitude increasingly easier to access and further establishes the strength and stability of the attitude (Schuette & Fazio, 1995).

The criminogenic attitudes construct focuses narrowly on those specific sentiments, values, and beliefs that promote criminal behavior, and which are commonly endorsed by criminal offenders (Simourd, 1997). In one of the earliest studies of attitudes among criminal offenders, Mylonas and Reckless (1963) found that offenders exhibited distinct attitudes associated with loyalty, self-justification, a belief in luck, and an exaggerated perception of society's shortcomings. These types of attitudes play a central role in many classic and contemporary theories of criminal behavior. Differential association theory (Sutherland & Cressey, 1955) and social learning theory (Bandura, 1986) both emphasize the role of internalized attitudes, having been learned through interactions with criminal associates, as primary motivation and justification for

criminal behavior. Similarly, Andrews and Bonta (2010b) proposed that criminogenic attitudes are intricately woven into the fabric of an offender's personality and therefore share a complex relationship with behavior, specifically longer-term patterns of behavior.

Mirroring the general relationship between attitudes and behavior, criminal behavior is strongly predicted by criminogenic attitudes. In other words, the extent to which a person endorses criminogenic attitudes is significantly positively correlated with criminal behavior. For example, Mills et al. (2004) found that offenders who strongly endorse positive attitudes towards violence were more likely to have committed crimes that included violence or the threat of violence. Similarly, offenders who endorsed negative attitudes toward violence and positive attitudes towards considering ones' own needs as more important than the needs of others are more likely to engage in general non-violent crimes (e.g., substance violations) and crimes that do not require confrontation with a victim (e.g., theft or burglary; Mills et al., 2004). Finally, Gendreau, Little, and Goggin, (1996) reported findings of a meta-analysis suggesting that antisocial attitudes are a stronger predictor of future criminal behavior than other factors such as social class, temperament, education, and factors related to parents and other family members.

From its earliest origins in sociology to the modern literature of social psychology, the attitude construct has remained well accepted as linked to and strongly predictive of human behavior. Although conceptualizations have varied through the decades with respect to the development and functions of attitudes,

general consensus has been that attitudes reflect the content of one's thoughts and are characterized by values, beliefs, and opinions. Along with the growth of literature on thought content (i.e., attitudes), there has also been a proliferation of literature related to thought processes. This literature has evolved our understanding of the mind's ability to recognize, interpret, and manipulate information. As these two avenues of cognitive-focused research have co-developed, it has become clear that thought content (e.g., what we think about) and thought process (e.g., how we think) are two distinct general constructs. This distinction, however, is blurry as it applies to criminogenic cognitions and the differentiation between thought content that promotes crime (i.e., criminogenic attitudes) and thought processes that perpetuate crime (i.e., criminogenic cognition).

### Criminogenic Thinking

Researchers who focus on the criminogenic thinking construct tend to emphasize the unique patterns of active cognitive processes that are often exhibited by criminal offenders and are believed to play a role in the onset and maintenance of criminal behavior patterns (Mandracchia & Morgan, 2011; Walters, 1990). Yochelson and Samenow (1976) were at the forefront of this line of research when they published their seminal work including a model of criminal cognition that consists of 52 unique thought patterns commonly observed among criminal offenders. Having found these cognitive patterns to be so prevalent among criminal offenders, Yochelson and Samenow (1976) concluded that criminal offenders exhibit qualitatively different patterns of thought than non-

offenders. Furthermore, they proposed that these maladaptive cognitive styles are a primary source of influence behind the impulsive, irresponsible, and antisocial types of behavior frequently associated with criminal behavior.

Rooted in Yochelson and Samenow's early conceptualization of the criminal mind, Walters (1990) introduced a newer model of criminogenic cognitions known as *Criminal Thinking Styles*, which he described as "a system of self-talk that serves to fuel the irresponsible, self-indulgent, interpersonally intrusive, social rule breaking actions" of lifestyle criminals (p. 129). With this statement, Walters asserted that criminal thinking styles are more than individual thoughts or even a collection of pervasive values and beliefs. Instead, they represent specific cognitive processes and systematic patterns of active thought that describe *how* criminal offenders think rather than *what* they think about. To assess this construct, Walters (1995a, 1995b) created the *Psychological Inventory of Criminal Thinking Styles* (PICTS), a well validated and highly reliable measure of cognitive thought patterns commonly observed among criminal offenders.

Using the PICTS, Walters (1995a, 2005) and others (see Egan, McMurrin, Richardson, & Blair, 2000; McCoy et al., 2006) have demonstrated strong evidence for an overall criminogenic thinking style (i.e., General Criminal Thinking) that further consists of eight specific thinking styles commonly exhibited by criminal offenders (i.e., Cutoff, Cognitive Indolence, Discontinuity, Mollification, Entitlement, Superoptimism, Power Orientation, and Sentimentality; Walters, 1995). The first three capture the criminal offenders' tendency to

ineffectively solve problems by disregarding consideration of the problem or its consequences (Cutoff), using cognitive shortcuts (e.g., stereotypes) in place of critical thinking (Cognitive Indolence), or becoming distracted by involvement in other, often unrelated activities (Discontinuity). Other criminal thinking styles describe the tendency to rationalize illegal or otherwise antisocial behavior by attributing it to external factors (Mollification), justifying as their right or privilege to do as they please (Entitlement), or overestimating the likelihood that the behavior will go unnoticed or unpunished (Superoptimism). The last two criminal thinking styles reflect a need to exert or demonstrate power over one's circumstances or other people (Power Orientation) and to relieve guilt about negative behavior by shifting focus to positive aspects of the behavior or to other good deeds the offender has performed (Sentimentality).

Walters (1995a) describes criminal thinking styles as the result of social learning processes that are at work throughout the early years of an offender's life. This is one explanation for the observation that although each of the eight thinking styles is so highly correlated with recidivism, no one scale has emerged as the best predictor for all criminal offenders. For example, Cutoff and Discontinuity strongly predict recidivism in American male inmates (Walters, 2014) while recidivism among American females convicted of a felony is most highly predicted by the Sentimentality scale (Walters & Elliott, 1999). Meanwhile, other studies have demonstrated Superoptimism as a strong predictor of recidivism among English male prisoners (Palmer & Hollin, 2004) and General Criminal Thinking as a strong predictor of recidivism among offenders with at

least 12 years of education but ineffective as a lone indicator of recidivism among individuals with less than 12 years of education (Walters, 2014).

In 2000, Egan and colleagues suggested that Walters' eight-factor model might not be the best representation of the construct(s) captured by the PICTS. Instead, Egan et al. (2000) presented the argument that significant item overlap in the 8-factor model is evidence that a more parsimonious model exists, such as their two-factor model consisting of lack of thoughtfulness and willful hostility (Egan et al., 2000). Although subsequent analyses and direct comparisons of one, two, four, and eight-factor models demonstrated significantly inferior fit of the one- and two-factor models, this line of research yielded a four-factor model of criminogenic cognition that accounted for the item overlap observed in the original eight factors while still acknowledging the unique components that distinguish the items (Walters, 2005). The first factor of the four-factor model is Problem Avoidance and includes all of the items included in the Cutoff, Cognitive Indolence, and Discontinuity scales. The second factor is Self-Assertion/Deception and includes all of the items from the Entitlement, Superoptimism, and Mollification scales. The third factor, Denial of Harm, largely consists of items from the original Sentimentality scale. Finally, the fourth factor in this model, Interpersonal Hostility, includes items from each of the original scales that related to hostile and disorganized methods of relating to others.

Walters' (1995a, 2005) conceptualization of criminogenic cognition as measured by the PICTS (Walters, 1995a) has demonstrated both psychometric and theoretical strength in their relation to criminal activity. However, the model

has also been evaluated as too narrowly focused on the nature of specific cognitions that are directly linked to criminal behaviors at the expense of overlooking potentially influential cognitive errors that are not exclusive to the criminal population (Mandracchia & Morgan, 2011). Mandracchia, Morgan, Garos, and Garland (2007) presented a broader conceptualization of criminogenic cognition that attempts to expand on the works of predecessors such as Yochelson and Samenow (1976) and Walters (1995) by capturing thought processes uniquely linked to criminal behavior as well as more general cognitive errors known to perpetuate maladaptive thoughts and behaviors among both criminal and non-criminal populations. These general cognitive errors (Beck, 1976, 2011; Ellis & Grieger, 1977) are widely recognized as prevalent and influential in the perpetuation of general mental health issues such as depression (Beck, 2011), anxiety (Barlow, 2002; Beck & Emery, 1985), substance abuse (Rotgers, 2012), and the maladaptive patterns of behavior associated with these varied issues.

Given that approximately 42-54% of criminal offenders meet criteria for a mental health diagnosis (James & Glaze, 2006). Mandracchia et al. (2007) argued that an effective conceptualization of criminogenic cognitions must account for the impact of maladaptive thought processes associated with mental health issues and other forms of maladaptive behaviors in addition to those that are uniquely and specifically related to criminal behavior. They suggested that cognitive errors indirectly perpetuate criminal behavior just as they perpetuate maladaptive emotions and behaviors associated with mental illness, by

maintaining the cycle of negative and often self-defeating thoughts and perceptions that motivate the associated behaviors. Introducing the term *criminogenic thinking*, Mandracchia et al. (2007) presented their construct as a three-factor model of criminogenic cognition that was originally used to form the Measure of Offender Thinking Styles-Revised (MOTS-R; Mandracchia et al., 2007), which was later developed into the Measure of Criminogenic Thinking Styles (MOCTS; Mandracchia & Morgan, 2011).

The first criminogenic thinking style as measured by the MOCTS is labeled *Control*. The *Control* domain reflects the characteristic need to exercise power and maintain command over various factors of the environment, including the behaviors and emotions of oneself and others. Some of the thought patterns captured by this factor include the tendency to reject legitimate forms of power, to exert control over the emotions of others, and to justify one's actions as rational and justified due to external factors. Engaging in these cognitive processes also reduces the offender's experience of fear by minimizing the effects of negative behaviors or avoiding feelings of insignificance and powerlessness. Mandracchia and Morgan (2012) found that Black offenders exhibited greater tendency for control style thinking than White offenders while increased age and being involved in a romantic relationship were associated with less control.

The second criminogenic thinking style as measured by the MOCTS reflects the use of simplistic cognitive strategies to navigate one's social environment. Referred to as *Cognitive Immaturity*, this domain includes a number of cognitive shortcuts such as the use of generalizations to evaluate



one's environment or the tendency to make decisions based on limited information. These thinking patterns and others within the Cognitive Immaturity domain are consistent with many of the cognitive errors described by Ellis and Grieger (1977) and Beck (1976). Tunnel vision (e.g., a narrow focus on limited information), overgeneralizing (e.g., drawing erroneous conclusions about one situation based on loosely related past experience), emotional reasoning (e.g., decision making based on acute emotions), and mind reading (e.g., erroneous assumptions about what others are thinking) are among the most salient of these patterns (Beck, 1976). Also captured by this thinking style is a propensity for self-pitying attitudes such as the tendency to disqualify positive aspects of oneself while personalizing the negative aspects. Just as with depression or anxiety, these self-deprecating patterns facilitate maladaptive behavior by perpetuating a cycle of hopelessness, guilt, and low self-efficacy to change. As one might expect, cognitive immaturity is predicted by age such that younger offenders display significantly greater levels of this pattern (Mandracchia et al., 2007; Mandracchia & Morgan, 2011).

The last form of criminogenic thinking measured by the MOCTS is *Egocentrism*, a style of thought that is marked by an intense focus on oneself as a central factor of one's environment. The items that constitute this scale reflect a person's endorsement of tendencies to perceive themselves as particularly unique and deserving of life satisfaction, to expect fair treatment from others, and to have a high sense of perfectionism and pretentiousness. These patterns of thought are often applied to the way one interprets their social environment and

the actions of others while contributing to an inflated sense of importance in relation to others (Mandracchia et al., 2007; Mandracchia & Morgan, 2011). Like control and cognitive immaturity, egocentrism has also been found to be particularly prevalent among younger offenders (Mandracchia et al., 2007).

### Purpose of the Study

Criminogenic cognition is a well-established risk factor for criminal behavior and there is clear empirical support indicating that these cognitions must be targeted for change if long-term reductions in recidivism are to be realized (Andrews et al., 1990). Furthermore, the most effective interventions will not only target criminogenic cognition for change, but they will also account for variability in the nature and function of different cognitive styles. However, emerging research suggests that the most commonly cited assessments of criminogenic cognitions might be capturing two equally important yet distinct cognitive constructs. More specifically, authors (for a discussion, see Walters, 2006) have recently speculated that measures like the PICTS and MOCTS are assessing cognitive processes referred to as criminogenic thinking while measures like the Measure of Criminal Attitudes and Associates (MCAA) and Criminal Sentiments Scale –Revised (CSS-M) are assessing specific forms of thought content referred to hereafter as criminogenic attitudes. As such, the primary purpose of the current study is to advance the literature base by testing the emerging theory that criminogenic cognition is a construct that includes two related yet distinct components: thought process (i.e., criminogenic thinking) and thought content (i.e., criminogenic attitudes).

In particular, confirmatory factor analyses were used to test the relationship between items represented on four well-established measures of criminogenic cognitions: two that appear to represent criminogenic thought processes (i.e., PICTS and MOCTS) and two that appear to represent criminogenic attitudes (i.e., MCCA and CSS-M). Based on the available literature, including that of the assessment creators, it was reasonable to conclude that items from the PICTS (Walters, 1995) and MOCTS (Mandracchia & Morgan, 2012) would fall into a single factor representing the form of thought process referred to as criminogenic thinking. Similarly, available data and literature suggests that items from the MCAA (Mills & Kroner, 2001) and CSS-M (Simourd & Van De Ven, 1999) would collectively form a factor representing thought content, or criminogenic attitudes. As previously discussed; however, these two distinct constructs are significantly positively correlated. As such, the secondary purpose of this study was to determine whether criminogenic thinking and criminogenic attitudes are best described as two separate constructs or two subcomponents of a single overarching construct.

#### Research Questions

1. How do four psychometrically sound measures of criminogenic cognition (i.e., MOCTS, PICTS, MCAA, CSS-M) correlate with one another?
2. Will measures of criminogenic thinking (i.e., MOCTS and PICTS) and criminogenic attitudes (i.e., MCAA and CSS-R) with strong empirical evidence of validity retain their factor structures within a national

sample of non-incarcerated males and females ranging in age, ethnicity, and history of involvement with the justice system?

3. Do measures of criminogenic thinking and criminogenic attitudes assess two related yet distinct constructs?
4. Are the proposed distinct variables of criminogenic thinking and criminogenic attitudes unique and related domains of a single overarching construct (i.e., criminogenic cognitions)?

## CHAPTER II - METHODOLOGY

### Participants

#### *Recruitment*

Participants were recruited from a convenience sample using Amazon's Mechanical Turk (MTurk), a web-based forum for individuals relying on human intelligence in order to complete a variety of tasks. These Human Intelligence Tasks (HIT's) are posted by "requesters" on MTurk for "workers" to complete in exchange for a nominal amount of money. Participants for this study were awarded \$0.30 for valid completion of all measures. Given the focus of the study on established cognitive patterns of adults and the impact on crime in America, only adult MTurk workers currently residing in the United States were recruited and permitted to participate in the study. Regarding reliability of the data, recent research has demonstrated that MTurk is a suitable method of collecting participant samples that are more representative of the general population in the categories of age, race, gender, and education level than typically found among college student samples (Paolacci, Chandler, & Ipeirotis, 2010). Additionally, researchers have demonstrated that MTurk workers provide reliable and quality data that is unaffected by the amount of compensation provided in exchange for their work (Buhrmester, Kwang, & Gosling, 2011; Mason & Suri, 2012).

Potential participants accessing MTurk saw a listing for this study describing it as a psychological survey. Individuals who indicated a desire to participate in this study by selecting to complete the "HIT" in MTurk were then

directed to a third party online research-based survey provider (i.e., Qualtrics) where they were provided with additional information about the study and asked to provide informed consent before beginning the research materials (see Appendix A). After providing consent to participate, participants were entered into the study and administered the demographic questionnaire and all four measures (i.e., MOCTS, PICTS, MCAA, CSS-M). The presentation order of primary measures was randomized to control for order and fatigue effects. Average completion time for this study was approximately 28 minutes. Participants were compensated \$0.30 for successful completion.

### *Demographics*

Participants for this study were 401 adults including 177 men (43.7%) and 224 women (55.3%) recruited using Amazon's Mechanical Turk online marketplace (described below). The mean age of participants was 38.6 years ( $SD = 12.5$ , Range 19-74). The vast majority of participants identified as either European American ( $N = 266$ , 65.7%) or Asian/Asian American ( $N = 81$ , 20%). The remainder identified as either African American ( $N = 23$ , 5.7%) or other ( $N = 31$ , 8.6%). Regarding education, an overwhelming majority of participants ( $N = 367$ , 90.8%) reported advanced education beyond a high school diploma, including technical or associate degrees ( $N = 50$ ), some college ( $N = 78$ ), bachelor's degrees ( $N = 162$ ), or graduate degrees ( $N = 77$ ). While only 19.3% ( $N = 78$ ) of participants reported a prior arrest and 16.8% ( $N = 68$ ) reported a

prior criminal conviction, 52% ( $N = 211$ ) endorsed prior history of committing a crime, other than traffic law violation, for which they could have been arrested.

## Materials

### *Demographic Questionnaire*

A self-report demographic questionnaire (Appendix B) solicited information such as age, sex, race, and education level. In addition, several questions asked participants to describe the degree to which they have been involved in criminal or otherwise antisocial type of behavior.

### *Psychological Inventory of Criminal Thinking Styles*

The first of two measures used to assess criminogenic thinking was the Psychological Inventory of Criminal Thinking Styles – Layperson Edition (PICTS-L; Walters, 2001). The PICTS-L (Appendix C) is an 80-item self-report instrument designed to assess the extent to which individuals in the general population endorse specific thought processes believed to promote criminal behavior. The PICTS-L (Walters, 2001) is an adaptation of the PICTS (Walters, 1995, 2010) that incorporates minor changes in wording to make it more applicable for use with non-incarcerated individuals. Participants use a 4-point scale of responses (4- strongly agree, 3- agree, 2- uncertain, 1- disagree) to endorse the extent to which they agree with the item. The PICTS-L (Walters, 2010) yields an overall scale of general criminal thinking and 20 subscales including two validity subscales (i.e., Confusion and Defensiveness) and eight scales for individual thinking styles. The eight criminal thinking style subscales

include eight items with a range of possible scores between 8 and 32. These scales include Mollification (Mo), Cutoff (Co), Entitlement (En) Power Orientation (Po), Sentimentality (Sn), Super Optimism (So), Cognitive Indolence (Ci), and Discontinuity (Ds). The PICTS-L subscales have consistently demonstrated sound psychometric properties (Walters, 2001, 2006, 2010). Reliability has been variable with marginal to high internal consistency ( $\alpha$ s = .54 -.91), moderately high two-week test-retest stability ( $r = .70$ ), and moderate 12-week test-retest stability ( $r = .50$ ).

#### *Measure of Criminogenic Thinking Styles*

The second measure used to assess criminogenic thinking was the Measure of Criminogenic Thinking Styles (MOCTS; Mandracchia & Morgan, 2011, 2012). The MOCTS (Appendix D) is a 70-item self-report measure of maladaptive thinking styles described by the authors as influential in the development and maintenance of criminal and otherwise maladaptive behavior. These cognitive styles include crime-promoting (i.e., criminogenic; Walters, 1990; Yochelson & Samenow, 1976) and other generally maladaptive (Beck, 1976; Ellis & Grieger, 1977) thought patterns. Using a 5-point Likert-type scale (e.g., Strongly Disagree = 1, Disagree = 2, Mixed/Neutral =3, Agree = 4, Strongly Agree = 5) allowing participants to indicate the degree to which they identify with each item as it relates to their experience of self, others, and the environment. The MOCTS contains subscales for three unique types of maladaptive thinking. The first subscale, Cognitive Immaturity, assesses the tendency to engage in



judging, blaming, and self-pitying thoughts. This scale includes 28 items with possible scores ranging from 28 to 140. The second subscale, Control, addresses the need for expression of power over oneself, others, and the environment. This scale includes 26 items with possible scores ranging from 26 to 130. The third subscale, Egocentrism, assesses the tendency to place oneself in a position of importance as the central focus of events and situations in one's environment. This scale includes eleven items with possible scores ranging from 11 to 55. Finally, an overall measure of general criminogenic thinking can be calculated from the combination of all 65 items included in the subscales for a range of possible scores between 65 and 325 (Mandracchia, 2013). The MOCTS also includes a 5-item validity scale used to detect random responding and general inattentiveness. These items are not included in the assessment of criminogenic thinking and are scored as either Correct = 0 or Incorrect = 1. Scores of two or greater on the inattentiveness scale indicate random responding and indicate the data may not be appropriate for further analysis.

The MOCTS is the third version of this measure (see Mandracchia & Morgan 2011, 2012) and is largely unchanged from the previous version (the Measure of Offender Thinking Styles – Revised), which has demonstrated strong psychometric properties. Internal reliability of the MOCTS scales has been demonstrated with a range of moderate to high Cronbach's alpha values (e.g., .81-.95) and split-half coefficients (e.g., .79-.91; Mandracchia & Morgan, 2011). Mandracchia and Morgan (2011) reported strong test-retest reliability (e.g., .55-

.67 over a two-week period) that is comparable to that of the PICTS (e.g., .31-.76; Walters, 2010). Convergent validity was supported with direct comparisons to other assessments of criminogenic cognitions (i.e., PICTS, MCAA, CSS-M) resulting in a range of moderate correlations coefficients (e.g., .18-.66).

### *Measure of Criminal Attitudes and Associates*

The Measure of Criminal Attitudes and Associates (MCAA; Mills & Kroner, 2001; Mills et al., 2002) is one of the two measures used to assess criminogenic attitudes. The MCAA (Appendix E) is a self-administered measure used to assess one's association with criminal offenders (Part A) and the presence of antisocial attitudes that are often associated with criminal behaviors (Part B). Part A begins by asking the participant to think about the individual they associate with most regularly and use a forced choice scale to indicate the percentage of their free time spent with that individual (i.e., "Less than 25%", "25% - 50%", "50% - 75%", and "75% - 100%"). Four follow-up questions then ask the participant to "Agree" or "Disagree" with statements about that individual's criminal activity (e.g., "Does this person have a criminal record?"). Participants repeat this process for the four people they associate with most frequently, yielding a total of 20 questions in Part A. Responses to these items are used to calculate the Criminal Friend Index (CFI), a standardized measure of the participant's involvement with criminal associates.

The MCAA Part B is a 46-item self-report assessment of procriminal (e.g., "For a good reason, I would commit a crime") and other antisocial (e.g., "It's not

wrong to save face”) attitudes. Participants respond to items by indicating whether they “Agree” or “Disagree” with the attitude expressed in each item. Initial scoring assigns a value of one for each “Agree” response and zero for each “Disagree” response. However, seven of the items are reverse-keyed and require reverse scoring such that a response of “Agree” = 0 and “Disagree” = 1.

The MCAA Part B yields four subscales reflecting separate domains of thought content that are associated with the perpetuation of criminal behavior. These thought domains are Attitudes Toward Violence (e.g., “It’s not wrong to hit someone who puts you down”), Attitudes Toward Entitlement (e.g., “Only I can decide what is right and wrong”), Antisocial Intent (e.g., “For a good reason, I would commit a crime”), and Attitudes Towards Associates (e.g., “I have a lot in common with people who break the law”). The first three scales include twelve items with possible scores ranging from 0 to 12. The fourth subscale, Attitudes Toward Associates, includes ten items with possible score ranging from 0 to 10. Additionally, each of these four scales can be combined to yield a total score of criminogenic attitudes with possible total scores ranging from 0 to 42 (Mills & Kroner, 2001).

The MCAA has been used with offender (Mills & Kroner, 2001; Mills et al., 2002) and non-offender populations, such as college students (Morgan, Batastini, Murray, Serna, & Porras, 2015). Internal consistency was demonstrated among a population of incarcerated offenders with coefficient alphas ranging from .63-.89. Test-retest reliability was initially established over a

4-week period, as the MCAA total and subscales produced alpha values ranging from .66 to .82 (Mills & Kroner, 2001). Convergent validity was demonstrated through direct comparison (e.g., correlation range = .40-.75) to other similar scales of antisocial attitudes such as the Criminal Sentiments Scale (CSS; Simourd & Van De Ven, 1999).

#### *Criminal Sentiments Scale – Modified*

The Criminal Sentiments Scale – Modified (CSS-M; Simourd & Van De Ven, 1999) is the other measure used in this study to assess criminogenic attitudes. The CSS-M (Appendix F) is a 41-item self-report questionnaire assessing antisocial attitudes, beliefs, and values commonly associated with criminal behavior. Participants respond to each item by selecting “Agree,” “Undecided,” or “Disagree.” Some items are negatively worded such that an answer of Agree can either endorse or reject a criminal sentiment, depending on the wording of the item. Therefore, participants receive two points for answers that endorse criminal sentiments, one point for a response of “undecided,” and zero points for an answer that rejects the criminal sentiment. The measure produces six subscales as well as a total score.

The first subscale, Attitudes Toward the Law (Law), assesses attitudes toward societal laws and includes ten items with possible scores ranging from 0 to 20. The second subscale, Attitudes Toward the Court (Court), assesses attitudes toward the judicial system and includes eight items with a range of 0-16 possible scores. The third subscale, Attitudes Toward the Police (Police),

assesses attitudes and beliefs toward law enforcement and includes seven items with possible scores ranging from 0 to 14. The fourth subscale, Tolerance for Law Violations (TLV), assesses an individual's tendency to engage in rationalizations for criminal activity and includes ten items with possible scores ranging from 0 to 20. Finally, the fifth subscale, Identification with Criminal Others (ICO), evaluates the opinions one has toward others who engage in criminal activity and includes six items with possible scores ranging from 0 to 12. Finally, the first three scales can be combined to create a composite scale, Law-Court-Police (LCP), to assess attitudes of general respect for the criminal justice system as a whole. This scale includes 25 items with possible scores ranging from 0 to 50.

At the time the CSS-M was developed, internal reliability was adequate ( $\alpha$ s = .70-.76), and interscale correlations ranged from low (e.g., .15) to high (.85). As one might expect, correlations were strongest among the three scales included in the LCP scale. Convergent validity was initially supported through direct comparison of the CSS-M and other established measures of antisocial risk such as the Pride in Delinquency Scale (Simourd, 1997) and Psychopathy Checklist – Revised (PCL-R; Hare, 1991). More recently, the CSS-M has gained convergent validity with other measures of criminogenic cognition such as the PICTS (Walters, 2005) and the MOCTS (Mandracchia & Morgan, 2011). Further, Simourd (1997) provided support for criterion-related validity by demonstrating that the CSS-M was significantly correlated with institutional offenses committed

by incarcerated offenders. Additionally, when administered to populations of non-incarcerated individuals, the CSS-M has demonstrated psychometric properties comparable to those found among incarcerated populations (Campbell, Doucette, & French, 2009; Morgan et al., 2015).

### Research Questions and Hypotheses

1. How do four psychometrically sound measures of criminogenic cognition correlate with one another?
  - a. Hypothesis 1a – It was hypothesized that the total scores and subscale scores for the MOCTS would demonstrate moderate to strong correlations with the total score and subscale scores of the PICTS.
  - b. Hypothesis 1b – It was hypothesized that the total scores and subscale scores for the MCAA would demonstrate moderate to strong correlations with the total score and subscale scores on the CSS-M.
  - c. Hypothesis 1c – It was hypothesized that the total scores and subscales for the PICTS and MOCTS would demonstrate low to moderate correlations with total scores and subscale scores on the MCAA and CSS-M.
2. Will empirically validated measures of criminogenic thinking (i.e., MOCTS and PICTS) and criminogenic attitudes (i.e., MCAA and CSS-M) retain their factor structures within a national sample of non-incarcerated males

and females ranging in age, ethnicity, and involvement with the justice system?

- a. Hypothesis 2a- It was hypothesized that following a confirmatory factor analysis, the MOCTS would retain its three-factor model representing the individual subscales of criminogenic thinking styles.
  - b. Hypothesis 2b – It was hypothesized that following a confirmatory factor analysis, the PICTS would retain the eight-factor model representing individual subscales of criminal thinking styles.
  - c. Hypothesis 2c – It was hypothesized that following a confirmatory factor analysis, the MCAA would retain its four-factor model representing individual subscales of criminogenic attitudes.
  - d. Hypothesis 2d – It was hypothesized that following a confirmatory factor analysis, the CSS-M would retain its 5 factor model representing individual subscales of antisocial attitudes, beliefs, and values.
3. Do measures of criminogenic thinking and criminogenic attitudes assess two related yet distinct constructs?
- a. Hypothesis 3a – It was hypothesized that a second-order confirmatory factor analysis would demonstrate the MOCTS and PICTS subscales as significant indicators of the latent variable criminogenic thinking.

- b. Hypothesis 3b – It was hypothesized that a second-order confirmatory factor analysis will demonstrate the MCAA and CSS-M subscales as significant indicators of the latent variable criminogenic attitudes.
- 4. Are the proposed distinct variables of criminogenic cognitions and criminogenic attitudes unique and related domains of a single over-arching construct?
  - a. Hypothesis 4a – It is hypothesized that a second-order confirmatory factor analysis will demonstrate combined significance of criminogenic thinking and criminogenic attitudes as indicators of the second order latent variable, criminogenic cognitions.



## CHAPTER III – RESULTS

### Data Screening and Preparation

Initial data screening began during the online data collection process with a time-based validity criterion that identified participants who failed to exceed a pre-determined minimum time threshold for completion of any of the four measures and discontinued their survey. In other words, participants who completed any of the target measures so quickly that they could not have possibly read the items and provided valid responses were routed out of the survey and excluded from further analyses. The number of participants who began the survey but were discontinued from data collection on this basis was 289. After all data were collected, they were entered into a Statistical Package for the Social Sciences Data file (IBM Corp. Released 2011, IBM SPSS Statistics for PC, Version 20. Armonk, NY: IBM Corp.), where they were screened for inclusion prior to analysis. According to a priori screening decisions, inattentive response patterns were identified using the random responding scale of the MOCTS. This led to the exclusion of another 36 participants. Finally, the data were screened for missing data in context of the a priori decision to exclude any participant missing 10% or more of items on any of the four measures. No additional cases were excluded for this reason. In total, 325 participants were excluded from statistical analyses, leaving 401 cases for analysis.

Items for the PICTS, MOCTS, MCAA, and CSS-M were scored as instructed by their respective user manuals. The PICTS yielded eight subscales and one total scale of criminogenic thinking styles. The MOCTS yielded three

subscales and one total scale of criminogenic thinking. The MCAA yielded four subscales and one total scale of criminal attitudes. The CSS-M yielded six subscales and one total scale of criminal sentiments. All subscales and total scales were computed as continuous variables where higher scores indicated greater endorsement of criminogenic cognitions. See Table 1 for the means, standard deviations, and internal scale reliability statistics.

Most subscale reliabilities were acceptable ( $\alpha > .70$ ) for research purposes. Exceptions included the Sentimentality subscale of the PICTS, which was marginal at .61 but consistent with its' performance in other studies (Walters, 2002), and the Identification with Criminal Others subscale of the CSS-M, which was unacceptably low and negative (-.20). A negative alpha coefficient, combined with the error message generated in SPSS about negative average covariance, typically indicates problems with coding. Coding was carefully checked, but no errors could be identified. Moreover, the inter-item correlations were not consistent with reverse-scoring errors and instead indicated weak relationships among the six items. Therefore, the ICO scale was excluded from further analyses described below.

#### Statistical Analyses

To begin the direct comparison of these four measures of criminogenic cognition, initial analyses tested the first research question, which asked, "How do four psychometrically sound measures of criminogenic cognition correlate with

Table 1

*Means, Standard Deviations, and Cronbach's Alpha Statistics*

Psychological Inventory of Criminal Thinking Styles – Layperson (PICTS-L)									
	GCT	Mo	Co	En	Po	Sn	So	Ci	Ds
M	138.9	16.9	17.7	20.4	16.9	18.4	14.8	16.4	17.4
SD	14.8	2.6	2.4	2.2	3.0	2.5	3.1	4.0	3.6
$\alpha$	.96	.78	.83	.86	.82	.61	.80	.81	.88
Range	78	15	14	15	17	13	18	20	20
Skewness	.961	.669	.166	-.076	.830	.329	1.36	.597	.862
Measure of Criminogenic Thinking Styles (MOCTS)									
	Total	Control	Cog Im	Ego					
M	161.2	56.5	67.3	37.4					
SD	39.5	18.7	22.4	6.2					
$\alpha$	.96	.95	.96	.72					
Range	210	90	106	36					
Skewness	.254	.631	.253	-.243					
Measure of Criminal Attitudes and Associates (MCAA)									
	Total	ATV	ATE	ASI	ATA				
M	14.8	3.4	4.7	3.1	3.6				
SD	8.7	3.1	2.8	3.0	2.6				
$\alpha$	.74	.85	.74	.83	.76				
Range	46	12	12	12	10				
Skewness	.869	1.03	.504	1.13	.266				

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Criminal Sentiments Scale – Modified (CSS-M)

	Total	Law	Court	Police	LCP	TLV	ICO
M	29.5	5.2	7.1	4.7	17.0	6.1	6.3
SD	12.7	4.2	3.6	3.5	9.7	4.4	1.6
$\alpha$	.75	.82	.80	.82	.90	.80	-.20
Range	65	20	16	14	50	20	12
Skewness	.680	1.16	.156	.742	.794	.598	.122

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GCT = General Criminal Thinking, Mo = Mollification, Co = Cutoff, En = Entitlement, Po = Power Orientation, Sn = Sentimentality, Ci = Cognitive Indolence, Ds = Discontinuity, Cog Im = Cognitive Immaturity, Ego = Egocentrism, ATV = Attitudes Toward Violence, ATE = Attitudes Toward Entitlement, ASI = Anti-Social Intent, ATA = Attitudes Toward Associates, LCP = Law-Court-Police, TLV = Tolerance for Law Violations, ICO = Identification with Criminal Others

one another?” First, it was hypothesized that the two measures of criminogenic thinking (i.e., MOCTS & PICTS) would demonstrate high correlations (see Table 2). The MOCTS and PICTS total scores were positively related ( $r = .76, p < .01$ ) with subscale correlations ranging from  $r = .21$  to  $r = .75$  ( $p < .01$ ). Thus, Hypothesis 1a was supported. Second, it was hypothesized that the two measures of criminogenic attitudes would demonstrate high correlations (see Table 3). The MCAA and CSS-M total scores shared a moderate correlation ( $r = .58, p < .01$ ) with subscale correlations ranging from  $r = .15$  to  $r = .72$  ( $p < .01$ ). Thus, Hypothesis 1b was supported. Finally, it was hypothesized that measures of criminogenic thinking would demonstrate low to moderate correlations with the measures of criminogenic attitudes (i.e., MCAA and CSS-M; see Table 4). The range of correlations between the total scores on measures of criminogenic thinking (CT) and criminogenic attitudes (CA) was  $r = .42$  to  $r = .67$  ( $p < .01$ ). Thus, Hypothesis 1c was supported.

Research question two asked, “Will empirically validated measures of criminogenic thinking (i.e., MOCTS and PICTS) and criminogenic attitudes (i.e., MCAA and CSS-M) retain their factor structures within a national sample of non-incarcerated males and females ranging in age, ethnicity, and involvement with the justice system?” Although there is evidence in support of the reliability and validity of each of these measures with offender and non-offender samples, this step was included in the current study for the purposes of informing researchers of any unusual or unexpected data anomalies that may have an impact on the

primary analyses. Therefore, individual confirmatory factor analyses were conducted using the M-Plus software package.

For each measure, individual items were entered as indicator variables of the latent variable represented by each subscale. Initial attempts to perform confirmatory factor analyses on each individual measure resulted in a failure to converge for all four measures. This is common among measures with highly correlated observed variables (Byrne, 2010) and is often resolved with an additional syntax command to increase the maximum iterations to 10,000 and fixing factor variances to a value of 1. In each case, command adjustments allowed the analyses to converge; however, correlations remained inflated and produced an error message indicating that although the requested output data was provided (e.g., fit indices), they were invalid due to one or more correlations being beyond the acceptable limits for interpretation. After consulting with peers,

Table 2

*Total Scale and Subscale Correlations of PICTS and MOCTS*

	GCT	Mo	Co	En	Po	Sn	So	Ci	Ds
MTS	.76	.71	.68	.69	.70	.45	.63	.67	.62
Control	.69	.65	.54	.75	.73	.40	.70	.49	.42
Cog Im	.68	.63	.66	.50	.54	.37	.43	.69	.68
Ego	.36	.31	.35	.33	.34	.31	.35	.26	.21

All correlations significant at the 0.01 level (2-tailed), GCT = General Criminal Thinking total score, Mo = Mollification, Co = Cutoff, En = Entitlement, Po = Power Orientation, Sn = Sentimentality, Ci = Cognitive Indolence, Ds = Discontinuity, MTS = MOCTS Total Scale, Cog Im = Cognitive Immaturity, Ego = Egocentris

Table 3

*Total Scale and Subscale Correlations of MCAA and CSS-M*

	CSSMT	Law	Court	Police	LCP	TLV
MCAA Total	.58**	.42**	.36**	.39**	.46**	.72**
ATV	.31**	.20**	.15**	.16**	.20**	.44**
ATE	.51**	.37**	.33**	.35**	.41**	.59**
ASI	.55**	.43**	.33**	.39**	.45**	.69**
ATA	.38**	.28**	.30**	.29**	.34**	.44*

\*\* Correlation is significant at the 0.01 level (2-tailed), \* Correlation is significant at the 0.05 level (2-tailed); Attitudes Toward Violence, ATE = Attitudes Toward Entitlement, ASI = Anti-Social Intent, ATA = Attitudes Toward Associates, LCP = Law-Court-Police, TLV = Tolerance for Law Violations, ICO = Identification with Criminal Others

texts, faculty, and web-based resources for information regarding potential causes and solutions to this error, it was determined that no further statistical techniques could be performed and the analyses would remain inconclusive. As a result, the output data are considered invalid and not reported. Although the results from the separate CFAs described above were unexpectedly problematic, they did not warrant the discontinuance of primary analyses given that the rationale for these analyses was to inform researchers of potentially problematic individual items (e.g., negative loadings) that may adversely impact the primary analyses and that the alpha coefficients for the scales to be used in the subsequent analyses were generally acceptable. Thus, the primary analysis continued as planned.

Table 4

*Total and Subscale Correlations for PICTS, MOCTS, MCAA, and CSS-M*

	<u>MOCTS</u>				<u>PICTS</u>								
	Con	CI	Ego	MTS	Mo	Co	En	Po	Sn	So	Ci	Di	GCT
<u>MCAA</u>													
ATV	.56	.41	.27	.54	.57	.45	.54	.58	.42	.55	.44	.34	.57
ATE	.52	.40	.35	.53	.59	.46	.58	.49	.43	.51	.43	.33	.56
ASI	.39	.36	.24	.43	.53	.53	.52	.35	.39	.52	.48	.40	.55
ATA	.13	.22	.21	.21	.29	.37	.22	.18	.27	.22	.34	.34	.34
Total	.54	.46	.36	.58	.67	.61	.63	.55	.51	.61	.57	.47	.67
<u>CSSM</u>													
ATL	.23	.26	.13	.27	.36	.26	.26	.20	.18	.25	.24	.23	.29
ATC	.16	.27	.19	.26	.33	.30	.21	.17	.22	.17	.23	.22	.27
ATP	.24	.26	.14	.28	.39	.29	.29	.24	.18	.27	.22	.23	.31
LCP	.24	.31	.18	.32	.42	.33	.30	.24	.23	.27	.27	.26	.34
TLV	.50	.44	.27	.53	.62	.51	.57	.46	.46	.54	.48	.42	.34
Total	.37	.38	.21	.42	.53	.43	.43	.35	.33	.40	.37	.35	.47



	<u>MOCTS</u>				<u>PICTS</u>								
	Con	CI	Ego	MTS	Mo	Co	En	Po	Sn	So	Ci	Di	GCT
<u>MCAA</u>													
ATV	.56	.41	.27	.54	.57	.45	.54	.58	.42	.55	.44	.34	.57
ATE	.52	.40	.35	.53	.59	.46	.58	.49	.43	.51	.43	.33	.56
ASI	.39	.36	.24	.43	.53	.53	.52	.35	.39	.52	.48	.40	.55
ATA	.13	.22	.21	.21	.29	.37	.22	.18	.27	.22	.34	.34	.34
Total	.54	.46	.36	.58	.67	.61	.63	.55	.51	.61	.57	.47	.67
<u>CSSM</u>													
ATL	.23	.26	.13	.27	.36	.26	.26	.20	.18	.25	.24	.23	.29
ATC	.16	.27	.19	.26	.33	.30	.21	.17	.22	.17	.23	.22	.27
ATP	.24	.26	.14	.28	.39	.29	.29	.24	.18	.27	.22	.23	.31
LCP	.24	.31	.18	.32	.42	.33	.30	.24	.23	.27	.27	.26	.34
TLV	.50	.44	.27	.53	.62	.51	.57	.46	.46	.54	.48	.42	.34
Total	.37	.38	.21	.42	.53	.43	.43	.35	.33	.40	.37	.35	.47

All correlations significant at the 0.01 level (2-tailed), \* Correlation is significant at the 0.05 level (2-tailed); CI = Cognitive Immaturity; Ego = Egocentricism; MO = Mollification; CO = Cutoff; EN = Entitlement; PO = Power Orientation; SN = Sentimentality; SO = Superoptimism; CI = Cognitive Indolence; DI = Discontinuity; GCT = General Criminal Thinking; ATV = Attitudes Toward Violence; ATE = Attitudes Toard Entitlement; ASI = Antisocial Intent; ATA = Attitudes Toward Associates; LCP = Law-Court-Police; TFLV = Tolerance for Law Violations

Research question three asked, “Do measures of criminogenic thinking and criminogenic attitudes assess two related yet distinct constructs?” Similarly, research question four asked, “Are the proposed distinct variables of criminogenic cognitions and criminogenic attitudes unique and related domains of a single over-arching construct?” Hypotheses related to these two questions posit that the first level of the second order confirmatory factor analyses would demonstrate that subscales for the MOCTS and PICTS would converge as indicators for the latent variable “Criminogenic Thinking” while subscales for the MCAA and CSS-M would converge as indicators for a separate latent variable, “Criminogenic Attitudes.” Furthermore, hypotheses stated that the first order latent variables would converge as indicators for a second order latent variable named Criminogenic Cognitions. Unfortunately, the second order CFA produced the same processing error as the individual CFA’s (described above) due to highly correlated subscales (i.e., observed variables). Therefore, the primary analyses neither supported nor led to the rejection of the proposed two-construct model of criminogenic thinking.

Finally, it is noteworthy that in an effort to exhaust all options, the second-order confirmatory factor analysis was conducted using the SPSS AMOS statistical software package to see if it produced different outcomes. This step was primarily motivated by the observed range of correlations produced by the SPSS correlation matrix, which seem to be within acceptable limits. The

attempted analysis produced a similar statistical error and could not be completed.

## CHAPTER IV – DISCUSSION

### Implications

Given the inconclusive results of the primary analyses for this study, conclusions drawn related to this study's hypotheses are limited. However, the completion of the study does advance the body of literature dedicated to criminogenic thinking in a few valuable ways. Early speculation of the distinction between CT and CA stems from descriptive data demonstrating low to moderate correlations between common measures of criminogenic cognitions. For example, during the measure development stage of the MOCTS, Mandracchia and Morgan (2011) provided support for convergent validity by demonstrating moderate correlations between the MOCTS and other established measures of criminogenic cognitions (i.e., PICTS, MCAA, and CSS-M). However, given that a comprehensive comparison of these four measures was not their primary focus, direct comparisons between the measures were limited and thus conclusions related to the emerging two-construct hypothesis were appropriately limited in scope. The set of direct comparisons conducted in the current study expands on the observations of Mandracchia and Morgan (2011) by demonstrating stronger relationships within measures of CT and measures of CA than between them. Therefore, although the more complex primary analyses were inconclusive, the observed simple correlations described above are noteworthy as they strengthen support for the hypothesized distinction between thinking and attitudes.

A second contribution of the current study is toward the advancement of scientific discussions regarding criminogenic cognitions. As a science, the field of psychology is driven and ultimately advanced by the constant pursuit of new knowledge to be injected into scientific debate about old concepts. In the case of the current study, the researchers initiated the process of applying a systematic approach to the analysis of a well-established construct (i.e., criminogenic thinking) for the purpose of gaining a more detailed understanding of it than existing research has produced. Although complications with the data and planned analyses prevented conclusive results in support or rejection of the proposed hypotheses, the challenges encountered in the current study can impact future research of criminogenic cognitions by informing researchers of the need to employ alternative forms of statistical analyses that may better detect the subtle yet significant differences between highly correlated constructs such as criminogenic thoughts and criminogenic attitudes.

Finally, given that the statistical complications encountered in this study arose from the observation of extremely high correlations between subscale items, it is necessary to discuss a few possible explanations in context of the premise of the study. The first, and perhaps most obvious possibility is that the four instruments are in fact measuring a single construct, rendering them statistically indistinguishable. Although this would be a significant finding for the study, the moderate correlations discussed above seem to directly contradict the single-construct hypothesis. Additionally, the individual confirmatory factor

analyses conducted of each measure produced the same error as the second-order comparison between the four measures. Given that each of the four measures has been rigorously and independently validated prior to this study, the complications with the current data seem to be the more likely result of factors external to the measures. For example, unique characteristics related to the sample population such as self-selection bias or homogeneity of unaccounted for categories of diversity (e.g., socio-economic status, access to computers, etc.) may have contributed to a lack of variability in the criminogenic cognitions measured. In any case, it is reasonable to conclude that the data, as they were, inexplicably did not work with the planned analyses. Nonetheless, these types of studies are critical to the goal of developing a unified conceptualization of criminogenic cognition that reflects the connections and distinctions between thoughts and attitudes.

#### Limitations

There are some limitations of this study that should be considered when interpreting the findings and the subsequent implications. Firstly, due to the problems with primary analyses, all of the conclusions discussed above are drawn solely from the simple correlations observed between subscales of the four measures. Although this limitation should not take away from the importance of this finding toward the overall goal of the study, any implications inferred by these conclusions should be tempered by the understanding that

correlations can demonstrate the presence or absence of construct relationships, but they do not describe the nature or function of those relationships.

Other limitations inherent with this study are related to the use of a convenience sampling method for participant recruitment and data collection. For example, although criminogenic cognitions are not exclusive to criminal offenders (McCoy et al., 2006), they are known to be more active among offenders. Thus, consideration must be given to how well the sample of this study reflects the attributes of criminal offender populations for which the constructs are most salient. Relatedly, it is noteworthy that the current sample had some demographic differences compared to offender samples in the United States. In the case of gender and racial composition, the current sample is not reflective of the norms among criminal offenders, which overwhelmingly consist of African American and Caucasian males. Also, the percentage (90.8%) of participants with higher education (e.g., some college, bachelor's degree) in the present sample is a stark contrast from criminal offender populations. According to Harlow (2003), more than 64% of all incarcerated offenders did not complete high school and only 12% of offenders have postsecondary education of any kind.

This characteristic of the current sample may be significant because although criminogenic thinking is present on a continuum and is documented as elevated among college student populations when compared to non-student populations of the same age (McCoy et al., 2006; Walters & McCoy, 2007), it

could be that higher education indicates more complex cognitive abilities that eliminate, buffer, or otherwise protect against the impact of criminogenic thinking patterns on problematic behavior. Subsequently, it may be that this characteristic of the population negatively impacted the data by limiting variability to be present in the current dataset, which could have had a direct effect on the inconclusive results of the analyses. In fact, when compared to descriptive data from another recent study using these measures with non-offender populations (Morgan et al., 2015), the mean and standard deviation values on the PICTS, CSS-M, and MCAA are considerably lower in the current study.

#### Future Directions

In order to advance this line of research, there is a great deal of work that can be done to address the limitations of this study and further understand the unique components of criminogenic cognitions. Firstly, it is recommended that the current study be replicated with participant populations that better represent the demographic landscape of criminal offenders. This could include recruitment of currently incarcerated offenders or post-release participation from probationers and parolees that have reintegrated into their communities. In either case, direct comparison of the construct(s) assessed by these four measures in a population of offenders is likely to yield more informative results due to the greater presence of construct variability and the ability to have greater confidence in the validity of the data.



Similarly, it was noted above that the education level of the current population was vastly different than the average community. Although it is hard to draw any firm conclusion about what, if any, role this higher level of education played in the failed analyses, it would behoove future researchers to take steps (e.g., recruitment techniques, statistical maneuvering) toward controlling for the presence and impact of education level on the results. This may include specific recruitment of individuals with lower education or statistically controlling for covariance. Additionally, group comparisons (e.g., ANOVA) could offer valuable insights into the quantitative impact of higher education on the presence and salience of criminogenic thinking.

In addition to replication with different populations, this study can be replicated with the intent of conducting different analyses more suitable to detecting differences between related constructs and the measures used to assess them. For example, SEM modeling offers some options for direct comparison of multiple models of a single construct to determine the best fit. This type of model comparison may be better suited to capture the subtle, but significant, differences between the constructs assessed by measures of criminogenic cognition.

## APPENDIX A –Informed Consent

### Thought Patterns and Criminal Behavior Consent Form (M-Turk)

You are being asked to participate in a study about the way you think and the degree, if any, to which you have participated in criminal behavior. The researchers of this study are David W. Gavel, M.S., Jon Mandracchia, Ph.D., and Eric Dahlen, Ph.D. at the University of Southern Mississippi, Department of Psychology.

#### Purpose:

The purpose of this study is to gather information to better understand the relationships between certain thinking styles and the tendency to participate in criminal behavior.

#### Description of the Study:

If you agree to participate in this study, the following will be asked of you. You will be asked to complete several questionnaires and a demographic sheet online.

The amount of time expected for participation in this study is 30-40 minutes.

#### Benefits of being in the Study:

Some people report having higher self-awareness of their own attitudes by responding to questions.

#### Risks:

The risks associated with your participation are minimal. You may find that you may become bored or tired when completing questions. Additionally, you will be asked some sensitive questions, such as your personal beliefs and attitudes toward crime. Some individuals may feel slight psychological discomfort when answering these questions.

#### Confidentiality:

The records of this study will be kept private. You will not be asked to provide your name. In any sort of report that might be published from this data, *no identifiable material for any participant will be included*. By consenting to participate in this study, each participant's Mturk worker identification number will be collected for the sole purpose of screening to prevent any participant from completing the survey more than one time. All Mturk worker ID numbers will be deleted from all datasets after data collection is completed. Research records will be stored securely and only the researchers involved in this study will have access to the research records.

#### Compensation:

Upon successful completion of the survey, you will be paid \$0.30 into your Mturk account. There will be several questions throughout the survey designed to determine if you are attending to item content. If correct answers are not given for these questions, then you will not be compensated. Additionally, each participant will only be compensated once for completing the survey.

Participants that attempt to complete the survey more than one time will only be compensated once, after their first completed survey.

Quality Assurance:

Quality assurance checks will be used to make sure that participants read each question carefully and answer thoughtfully. Participants who do not pass these checks will NOT receive credit for completing the study.

Participant's Assurance:

This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations.

Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board,

The University of Southern Mississippi

118 College Drive #5147, Hattiesburg, MS 39406-0001

(601) 266-5997.

Participation in this project is completely voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Any questions about the research should be directed to the Principal Investigator using the contact information provided in the below.

Voluntary Nature of the Study:

Participation in this study is completely up to you. Whether you decide to participate or not will not affect your current or future relations with the University

of Southern Mississippi. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Again, the researchers conducting this study are David W. Gavel, M.S., Dr. Jon Mandracchia, and Dr. Eric Dahlen. If you have questions later, you may contact David Gavel at [david.gavel@eagles.usm.edu](mailto:david.gavel@eagles.usm.edu) or Dr. Eric Dahlen at [eric.dahlen@usm.edu](mailto:eric.dahlen@usm.edu)

I have read and understand the above information. By clicking below, I am indicating that I am at least 18 years of age and that I consent to participate in this study.

APPENDIX B – Demographic Form

Demographic Information

Please check or circle or fill in the blank where appropriate

1. How old are you (in years)? \_\_\_\_
2. What is your gender? (circle one)     M     F     Other
3. Which racial or ethnic group do you identify with?
  - a. \_\_\_\_\_ African American/Black
  - b. \_\_\_\_\_ American Indian/Native American
  - c. \_\_\_\_\_ Asian/Asian American
  - d. \_\_\_\_\_ Caucasian
  - e. \_\_\_\_\_ Hispanic/Latino(a)
  - f. \_\_\_\_\_ Biracial/Multiracial (Explain) \_\_\_\_\_
  - g. \_\_\_\_\_ Other (Explain) \_\_\_\_\_
4. What state do you live in? \_\_\_\_\_
5. Which of the following best describes the type of region where you currently live?
  - a. Rural
  - b. Urban
  - c. Large Metropolitan
6. What is your highest level of education completed?
  - a. High school/GED                         \_\_\_\_\_
  - b. Trade/technical school                 \_\_\_\_\_
  - c. Some College                                 \_\_\_\_\_
  - d. Associates degree                             \_\_\_\_\_
  - e. Bachelor's degree                            \_\_\_\_\_
  - f. Graduate degree or higher                 \_\_\_\_\_
7. Other than non-criminal traffic violations (e.g., speeding, illegal turns), have you **ever** performed an unlawful act that you could have been arrested and/or convicted of if you had been caught? This includes driving under the influence of alcohol or other substances.  
Yes \_\_\_\_\_                         No \_\_\_\_\_
8. Have you ever been arrested for a crime you **were not** convicted of?  
Yes \_\_\_\_\_                         No \_\_\_\_\_
  - a. If yes, how old were you at the time of your first arrest? \_\_\_\_\_ years
9. Have you ever been arrested for a crime you **were** convicted of a crime?

Yes \_\_\_\_\_ No \_\_\_\_\_

a. If yes, how old were you at the time of your first conviction? \_\_\_\_\_ years

b. If yes, have you ever been convicted of a... (check all that apply):

- i. Misdemeanor                      yes\_\_\_\_                      no\_\_\_\_
- ii. Felony                              yes\_\_\_\_                      no\_\_\_\_
- iii. Drug related crime              yes\_\_\_\_                      no\_\_\_\_
- iv. Violent crime                      yes\_\_\_\_                      no\_\_\_\_
- v. Property crime                      yes\_\_\_\_                      no\_\_\_\_

10. Have you ever served time in jail?

a. If yes, how long? \_\_\_\_ years \_\_\_\_ months

11. Have you ever served time in prison?

a. If yes, how long? \_\_\_\_ years \_\_\_\_ months

12. How long has it been since you were last incarcerated?

\_\_\_\_\_ years \_\_\_\_ months

Are you currently on probation or parole?      Yes\_\_\_\_\_      No\_\_\_\_\_

APPENDIX C – Psychological Inventory of Criminal Thinking Styles

– Layperson Edition (PICTS-L)

(Version 4.0)

Glenn D. Walters, Ph.D.

Adapted by James C. Kaufman, Ph.D.

Name \_\_\_\_\_ Reg. No. \_\_\_\_\_ Date \_\_\_\_\_

Age \_\_\_\_\_ Sex \_\_\_\_\_ Race \_\_\_\_\_ Education \_\_\_\_\_ Marital \_\_\_\_\_

Confining Offense Sentence

Directions: The following items, if answered honestly, are designed to help you better understand your thinking and behavior. Please take the time to complete each of the 80 items on this inventory using the four-point scale defined below:

4= strongly agree (SA)

3= agree (A)

2= uncertain (U)

1= disagree (D)

1. I will allow nothing to get in the way of me getting what I want..... 4 3 2 1

2. I find myself blaming society and external circumstances for the problems I have had in life..... 4 3 2 1

3. Change can be scary..... 4 3 2 1

4. Even though I may start out with the best of intentions I have trouble remaining focused and staying "on track"..... 4 3 2 1

5. There is nothing I can't do if I try hard enough..... 4 3 2 1



6. When pressured by life's problems I have said "the hell with it" and followed this up by using drugs or engaging in crime..... 4 3 2 1
7. It's unsettling not knowing what the future holds..... 4 3 2 1
8. I have found myself blaming the victims of some of my crimes by saying things like "they deserved what they got" or "they should have known better"..... 4 3 2 1
9. One of the first things I consider in sizing up another person is whether they look strong or weak..... 4 3 2 1
10. I occasionally think of things too horrible to talk about..... 4 3 2 1
11. I am afraid of losing my mind..... 4 3 2 1
12. The way I look at it, I've paid my dues and am therefore justified in taking what I want..... 4 3 2 1
13. The more I got away with crime the more I thought there was no way the police or authorities would ever catch up with me..... 4 3 2 1
14. I believe that breaking the law is no big deal as long as you don't physically hurt someone..... 4 3 2 1
15. I have helped out friends and family with money acquired illegally..... 4 3 2 1
16. I am uncritical of my thoughts and ideas to the point that I ignore the problems and difficulties associated with these plans until it is too late..... 4 3 2 1
17. It is unfair that bank presidents, lawyers, and politicians get away with all sorts of illegal and unethical behavior every day and yet I could still be arrested for a much smaller crime..... 4 3 2 1
18. I find myself arguing with others over relatively trivial matters..... 4 3 2 1
19. I can honestly say that I think of everyone's welfare before engaging in potentially risky behavior..... 4 3 2 1
20. When frustrated I find myself saying "fuck it" and then engaging in some irresponsible or irrational act..... 4 3 2 1
21. New challenges and situations make me nervous..... 4 3 2 1

22. If I was ever caught committing a crime, there's no way I'd be convicted or sent to prison..... 4 3 2 1
23. I find myself taking shortcuts, even if I know these shortcuts will interfere with my ability to achieve certain long-term goals..... 4 3 2 1
24. When not in control of a situation I feel weak and helpless and experience a desire to exert power over others..... 4 3 2 1
25. Despite any bad things I may have done, deep down I am basically a good person..... 4 3 2 1
26. I will frequently start an activity, project, or job but then never finish it.. 4 3 2 1
27. I regularly hear voices and see visions which others do not hear or see4 3 2 1
28. When it's all said and done, society owes me..... 4 3 2 1
29. I have said to myself more than once that if I didn't have to worry about anyone "snitching" on me I would be able to do what I want without getting caught..... 4 3 2 1
30. I tend to let things go which should probably be attended to, based on my belief that they will work themselves out..... 4 3 2 1
31. I have used alcohol or drugs to eliminate fear or apprehension before committing a crime..... 4 3 2 1
32. I have made mistakes in life..... 4 3 2 1
33. On the streets I would tell myself I needed to rob or steal in order to continue living the life I had coming..... 4 3 2 1
34. I like to be on center stage in my relationships and conversations with others, controlling things as much as possible..... 4 3 2 1
35. When questioned about my motives for engaging in crime, I have justified my behavior by pointing out how hard my life has been..... 4 3 2 1
36. I have trouble following through on good initial intentions..... 4 3 2 1
37. I find myself expressing tender feelings toward animals or little children in order to make myself feel better after committing a crime or engaging in irresponsible behavior..... 4 3 2 1

38. There have been times in my life when I felt I was above the law..... 4 3 2 1
39. It seems that I have trouble concentrating on the simplest of tasks..... 4 3 2 1
40. I tend to act impulsively under stress..... 4 3 2 1
41. Why should I be made to appear worthless in front of friends and family when it is so easy to take from others..... 4 3 2 1
42. I have often not tried something out of fear that I might fail..... 4 3 2 1
43. I tend to put off until tomorrow what should have been done today..... 4 3 2 1
44. Although I have always realized that I might get caught for a crime, I would tell myself that there was "no way they would catch me this time"... 4 3 2 1
45. I have justified selling drugs, burglarizing homes, or robbing banks by telling myself that if I didn't do it someone else would..... 4 3 2 1
46. I find it difficult to commit myself to something I am not sure of because of fear..... 4 3 2 1
47. People have difficulty understanding me because I tend to jump around from subject to subject when talking..... 4 3 2 1
48. There is nothing more frightening than change..... 4 3 2 1
49. Nobody tells me what to do and if they try I will respond with intimidation, threats, or I might even get physically aggressive..... 4 3 2 1
50. When I commit a crime or act irresponsibly I will perform a "good deed" or do something nice for someone as a way of making up for the harm I have caused..... 4 3 2 1
51. I have difficulty critically evaluating my thoughts, ideas, and plans..... 4 3 2 1
52. Nobody before or after can do it better than me because I am stronger, smarter, or slicker than most people..... 4 3 2 1
53. I have rationalized my irresponsible actions with such statements as "everybody else is doing it so why shouldn't I"..... 4 3 2 1
54. If challenged I will sometimes go along by saying "yeah, you're right," even when I know the other person is wrong, because it's easier than arguing with them about it..... 4 3 2 1

55. Fear of change has made it difficult for me to be successful in life..... 4 3 2 1
56. The way I look at it I'm not really a criminal because I never intended to hurt anyone..... 4 3 2 1
57. I still find myself saying "the hell with working a regular job, I'll just take it"..... 4 3 2 1
58. I sometimes wish I could take back certain things I have said or done. 4 3 2 1
59. Looking back over my life I can see now that I lacked direction and consistency of purpose..... 4 3 2 1
60. Strange odors, for which there is no explanation, come to me for no apparent reason..... 4 3 2 1
61. I think that I can use drugs and avoid the negative consequences (such as addiction) that I have observed in others..... 4 3 2 1
62. I tend to be rather easily sidetracked so that I rarely finish what I start. 4 3 2 1
63. If there is a short-cut or easy way around something I will find it..... 4 3 2 1
64. I have trouble controlling my angry feelings..... 4 3 2 1
65. I believe that I am a special person and that my situation deserves special consideration..... 4 3 2 1
66. There is nothing worse than being seen as weak or helpless..... 4 3 2 1
67. I view the positive things I have done for others as making up for the negative things..... 4 3 2 1
68. Even when I set goals I frequently do not obtain them because I am distracted by events going on around me..... 4 3 2 1
69. There have been times when I tried to change but was prevented from doing so because of fear..... 4 3 2 1
70. When frustrated I will throw rational thought to the wind with such statements as "fuck it" or "the hell with it"..... 4 3 2 1
71. I have told myself that I would never have had to engage in crime if I had had a good job..... 4 3 2 1

72. I can see that my life would be more satisfying if I could learn to make better decisions..... 4 3 2 1
73. There have been times when I have felt entitled to break the law in order to pay for a vacation, new car, or expensive clothing that I told myself I needed..... 4 3 2 1
74. I rarely considered the consequences of my actions when I was in the community..... 4 3 2 1
75. A significant portion of life has been spent trying to control people and situations..... 4 3 2 1
76. There are times when I have done bad things and not gotten caught, and sometimes I feel overconfident and feel like I could just about anything and get away with it..... 4 3 2 1
77. As I look back on it now, I was a pretty good guy even though I was involved in crime..... 4 3 2 1
78. There have been times when I have made plans to do something with my family and then cancelled these plans so that I could hang out with my friends, use drugs, or commit crimes..... 4 3 2 1
79. I tend to push problems to the side rather than dealing with them..... 4 3 2 1
80. I have used good behavior (abstaining from crime for a period of time) or various situations (fight with a spouse) to give myself permission to commit a crime or engage in other irresponsible activities such as using drugs.....4 3 2 1

## APPENDIX D – Measure of Criminogenic Thinking Styles (MOCTS)

### MOCTS

This measure has statements that describe possible ways you may think about yourself, others, and life in general. Please respond to each of the statements below by showing how much that statement has been like your beliefs over the past two weeks. Your answer should reflect how much you personally agree with the statement.

**1 = Strongly Disagree**

**2 = Disagree**

**3 = Mixed/Neutral**

**4 = Agree**

**5 = Strongly Agree**

- |                                                                                                           |           |
|-----------------------------------------------------------------------------------------------------------|-----------|
| 1. I have often felt worthless or inadequate because of what others have said about me.                   | 1 2 3 4 5 |
| 2. I expect that I will be the best at whatever I do.                                                     | 1 2 3 4 5 |
| 3. I can be very professional when it comes to things I care about.                                       | 1 2 3 4 5 |
| 4. The closer I got to doing something illegal or socially unacceptable, the more confident I became.     | 1 2 3 4 5 |
| 5. I wouldn't do illegal or socially unacceptable things if life were more fair to me.                    | 1 2 3 4 5 |
| 6. When my partner (spouse, lover) and I get into a fight, I know it is because she/he wants to leave me. | 1 2 3 4 5 |
| 7. I am often filled with rage and anger.                                                                 | 1 2 3 4 5 |
| 8. I don't stop to think before I act, I just act.                                                        | 1 2 3 4 5 |
| 9. I am always angry.                                                                                     | 1 2 3 4 5 |
| 10. I am always thinking of ways to make life more exciting.                                              | 1 2 3 4 5 |
| 11. I find myself quitting tasks regularly; they just aren't worth the time I put into them.              | 1 2 3 4 5 |
| 12. When people tell me I'm good at something, I find it                                                  | 1 2 3 4 5 |

hard to believe them.

13. I am so different from other people that no one truly understands me. 1 2 3 4 5

14. I tend to focus on negative things and forget about what is good in my life. 1 2 3 4 5

15. Answer this item with Agree 1 2 3 4 5

16. I start out with good intentions, but then things go wrong. 1 2 3 4 5

17. Each day should be lived to the fullest, because it could be your last. 1 2 3 4 5

18. A real man/woman doesn't feel afraid. 1 2 3 4 5

19. I feel worthless if I don't do well. 1 2 3 4 5

20. I have trouble keeping things stable in my life. 1 2 3 4 5

21. I think of myself as one of a kind. 1 2 3 4 5

22. I find myself looking for ways to gain power. 1 2 3 4 5

23. No one tells me what I can and cannot do in a relationship. 1 2 3 4 5

24. I am #1 in everything I do. 1 2 3 4 5

25. Answer this item with Mixed/Neutral 1 2 3 4 5

26. Even if I do something right, I still feel I am a failure. 1 2 3 4 5

27. I tend to see the worst in situations. 1 2 3 4 5

28. When things go well, it's usually because of luck. 1 2 3 4 5

29. Without power, you have nothing. 1 2 3 4 5

30. I am always in command. 1 2 3 4 5

31. I tend to blow little things out of proportion. 1 2 3 4 5

32. No matter how much good stuff is said about me, if one “negative” thing is said, that is what I will remember. 1 2 3 4 5
33. I despise people who do not treat me fairly. 1 2 3 4 5
34. You are either a “top dog” or you’re nothing. 1 2 3 4 5
35. Answer this item with Strongly Disagree 1 2 3 4 5
36. I only try to make changes in my life if I feel things are awful or I am emotionally upset (e.g., angry, anxious, depressed). 1 2 3 4 5
37. I would rather have the power of doing illegal or socially unacceptable things than the power of doing legal and socially acceptable things. 1 2 3 4 5
38. When it comes to things I care about, I am a perfectionist. 1 2 3 4 5
39. When I was a kid I wanted to be ruler of the world. 1 2 3 4 5
40. I don’t think before I act; I usually act based on how I feel at that moment. 1 2 3 4 5
41. I tend to expect that the worst will happen. 1 2 3 4 5
42. I have to control other people’s emotions so I can keep a handle on things. 1 2 3 4 5
43. I haven’t done anything to anyone that they didn’t deserve. 1 2 3 4 5
44. I live for today, because I could die tomorrow. 1 2 3 4 5
45. Answer this item with Strongly Agree 1 2 3 4 5
46. People would say I have “macho” hobbies. 1 2 3 4 5
47. My mind is always racing with ideas. 1 2 3 4 5
48. When I am thinking of doing something illegal or socially unacceptable, I can’t let fear or worries stand in my way. 1 2 3 4 5



49. Life is much easier when I control how other people think and feel. 1 2 3 4 5
50. Having one good thing happen doesn't mean anything when the majority of things that happen to me are bad. 1 2 3 4 5
51. I tend to have "tunnel vision," where I only see things in a negative light. 1 2 3 4 5
52. I'm not like everyone else. 1 2 3 4 5
53. I find that if I make one mistake on the job, I can't let it go. 1 2 3 4 5
54. I prefer to do things myself, that way I know they will be done right. 1 2 3 4 5
55. Answer this item with Disagree 1 2 3 4 5
56. I can't enjoy the present, because of all the bad things in my past. 1 2 3 4 5
57. When people give me negative feedback, I realize how inadequate I am. 1 2 3 4 5
58. By the time I actually do something illegal or socially unacceptable I know everything will work out as planned. 1 2 3 4 5
59. I love power so much that I will do anything to get it, even if I have to be manipulative or conning. 1 2 3 4 5
60. It seems my mind is always racing. 1 2 3 4 5
61. I find myself always wanting to be the leader in everything. 1 2 3 4 5
62. Once I make a judgment about someone, there is little chance of my changing my mind. 1 2 3 4 5
63. I'm not very good about following through on things that require a lot of time and effort. 1 2 3 4 5
64. I need power and control to function in life. 1 2 3 4 5

65. I will not tolerate things that I don't like. 1 2 3 4 5
66. Awful things from the past will always haunt my future. 1 2 3 4 5
67. Power is the most important thing a person can have. 1 2 3 4 5
68. Even though people don't tell me, I know they think bad stuff about me. 1 2 3 4 5
69. I do illegal or socially unacceptable things to survive. 1 2 3 4 5
70. The sexual conquest is more important to me than the quality of the sex. 1 2 3 4 5

APPENDIX E – Measure of Criminal Attitudes and Associates (MCAA)

Questionnaire (MCAA)

This questionnaire has two parts (Part A and Part B). The first part asks some questions about your friends and acquaintances. The second part is a series of statements for which you can respond by showing whether you agree or disagree with the statement. There are no right or wrong answers. Please answer all the questions.

Part A

Consider the 4 adults you spend the most time with in the community, when you answer Part I. No names please of the people you are referring to. Then answer the questions to the best of your knowledge.

1. A. How much of your free time do you spend with person #1?

(Please Circle Your Answer)

less than 25%      25% -50%      50% -75%      75%-100%

B. Has person #1 ever committed a crime?      Yes      No

C. Does person #1 have a criminal record?      Yes      No

D. Has person #1 ever been to jail?      Yes      No

E. Has person #1 tried to involve you in a crime?      Yes      No

2. A. How much of your free time do you spend with person #2?

(Please Circle Your Answer)

less than 25%      25% -50%      50% -75%      75%-100%

B. Has person #2 ever committed a crime?      Yes      No

C. Does person #2 have a criminal record?      Yes      No

D. Has person #2 ever been to jail? Yes No

E. Has person #2 tried to involve you in a crime? Yes No

3. A. How much of your free time do you spend with person #3?

(Please Circle Your Answer)

less than 25%      25% -50%      50% -75%      75%-100%

B. Has person #3 ever committed a crime? Yes No

C. Does person #3 have a criminal record? Yes No

D. Has person #3 ever been to jail? Yes No

E. Has person #3 tried to involve you in a crime? Yes No

4. A. How much of your free time do you spend with person #4?

(Please Circle Your Answer)

less than 25%      25% -50%      50% -75%      75%-100%

B. Has person #4 ever committed a crime? Yes No

C. Does person #4 have a criminal record? Yes No

D. Has person #4 ever been to jail? Yes No

E. Has person #4 tried to involve you in a crime? Yes No

## Part B

Please Answer All The Questions

A = Agree D = Disagree (Circle One Answer)

- A D 1. It's understandable to hit someone who insults you.
- A D 2. Stealing to survive is understandable.
- A D 3. I am not likely to commit a crime in the future.
- A D 4. I have a lot in common with people who break the law.
- A D 5. There is nothing wrong with beating up a child molester.
- A D 6. A person is right to take what is owed them, even if they have to steal it.
- A D 7. I would keep any amount of money I found.
- A D 8. None of my friends have committed crimes.
- A D 9. Sometimes you have to fight to keep your self-respect.
- A D 10. I should be allowed to decide what is right and wrong.
- A D 11. I could see myself lying to the police.
- A D 12. I know several people who have committed crimes.
- A D 13. Someone who makes you very angry deserves to be hit.
- A D 14. Only I should decide what I deserve.
- A D 15. In certain situations I would try to outrun the police.
- A D 16. I would not steal, and I would hold it against anyone who does.
- A D 17. People who get beat up usually had it coming.
- A D 18. I should be treated like anyone else no matter what I've done.
- A D 19. I would be open to cheating certain people.
- A D 20. I always feel welcomed around criminal friends.
- A D 21. It's all right to fight someone if they stole from you.
- A D 22. It's wrong for a lack of money to stop you from getting things.
- A D 23. I could easily tell a convincing lie.
- A D 24. Most of my friends don't have criminal records.
- A D 25. It's not wrong to hit someone who puts you down.
- A D 26. A hungry man has the right to steal.

- A D 27. Rules will not stop me from doing what I want.
- A D 28. I have friends who have been to jail.
- A D 29. Child molesters get what they have coming.
- A D 30. Taking what is owed you is not really stealing.
- A D 31. I would not enjoy getting away with something wrong.
- A D 32. None of my friends has ever wanted to commit a crime.
- A D 33. It's not wrong to fight to save face.
- A D 34. Only I can decide what is right and wrong.
- A D 35. I would run a scam if I could get away with it.
- A D 36. I have committed a crime with friends.
- A D 37. Someone who makes you really angry shouldn't complain if they get hit.
- A D 38. A person should decide what they deserve out of life.
- A D 39. For a good reason, I would commit a crime.
- A D 40. I have friends who are well known to the police.
- A D 41. There is nothing wrong with beating up someone who asks for it.
- A D 42. No matter what I've done, its only right to treat me like everyone else.
- A D 43. I will not break the law again.
- A D 44. It is reasonable to fight someone who cheated you.
- A D 45. A lack of money should not stop you from getting what you want.
- A D 46. I would be happy to fool the police.

APPENDIX F – Criminal Sentiments Scale – Modified (CSS-M)

CRIMINAL SENTIMENTS SCALE-MODIFIED

Directions: Read each statement carefully and decide how you feel about it.

Circle A if you agree with the statement or D if you disagree with the statement.

If you are undecided or cannot make up your mind about the statement, circle U.

Remember, there are no right or wrong answers.

LAW

1. Pretty well all laws deserve our respect. A U D
2. It's our duty to obey all laws. A U D
3. Laws are usually bad. A U D
4. The law is rotten to the core. A U D
5. You cannot respect the law because it's there only to help a small and selfish group of people. A U D
6. All laws should be obeyed just because they are laws. A U D
7. The law does not help the average person. A U D
8. The law is good. A U D
9. Law and justice are the same thing. A U D
10. The law makes slaves out of most people for a few people on the top. A U D

Law Total: \_\_\_\_\_

COURTS

11. Almost any jury can be fixed. A U D
12. You cannot get justice in court. A U D
13. Lawyers are honest. A U D

- |                                                                          |                    |
|--------------------------------------------------------------------------|--------------------|
| 14. The crown often produces fake witnesses.                             | A U D              |
| 15. Judges are honest and kind.                                          | A U D              |
| 16. Court decisions are pretty well always fair.                         | A U D              |
| 17. Pretty well anything can be fixed in court if you have enough money. | A U D              |
| 18. A judge is a good person.                                            | A U D              |
|                                                                          | Court total: _____ |

POLICE

- |                                                            |                     |
|------------------------------------------------------------|---------------------|
| 19. The police are honest.                                 | A U D               |
| 20. A cop is a friend to people in need.                   | A U D               |
| 21. Life would be better with fewer cops.                  | A U D               |
| 22. The police should be paid more for their work.         | A U D               |
| 23. The police are as crooked as the people they arrest.   | A U D               |
| 24. Society would be better off if there were more police. | A U D               |
| 25. The police almost never help people.                   | A U D               |
|                                                            | Police total: _____ |

TLV

- |                                                                                      |       |
|--------------------------------------------------------------------------------------|-------|
| 26. Sometimes a person like me has to break the law to get ahead in life.            | A U D |
| 27. Most successful people broke the law to get ahead in life.                       | A U D |
| 28. You should always obey the law, even if it keeps you from getting ahead in life. | A U D |
| 29. Its OK to break the law as long                                                  |       |



- as you don't get caught. A U D
30. Most people would commit crimes if they wouldn't get caught. A U D
31. There is never a good reason to break the law. A U D
32. A hungry man has the right to steal. A U D
33. It's OK to get around the law as long as you don't actually break it. A U D
34. You should only obey those laws that are reasonable. A U D
35. You're crazy to work for a living if there's an easier way, even if it means breaking the law. A U D
- TLV total: \_\_\_\_\_

ICO

36. People who have broken the law have the same sorts of ideas about life as me. A U D
37. I prefer to be with people who obey the law rather than people who break the law. A U D
38. I'm more like a professional criminal than the people who break the law now and then. A U D
39. People who have been in trouble with the law are more like me than people who don't have trouble with the law. A U D
40. I have very little in common with people who never break the law. A U D
41. No one who breaks the law can be my friend. A U D
- ICO total: \_\_\_\_\_

CSS TOTAL: \_\_\_\_\_

## APPENDIX G – IRB Approval Letter



**INSTITUTIONAL REVIEW BOARD**  
118 College Drive #5147 | Hattiesburg, MS 39406-0001  
Phone: 601.266.5997 | Fax: 601.266.4377 | [www.usm.edu/research/institutional.review.board](http://www.usm.edu/research/institutional.review.board)

### NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.  
Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 15072102  
PROJECT TITLE: More Than Mere Symptoms: Examining the Difference Between Criminogenic Thinking and Criminogenic Attitudes  
PROJECT TYPE: New Project  
RESEARCHER(S): David Gavel  
COLLEGE/DIVISION: College of Education and Psychology  
DEPARTMENT: Psychology  
FUNDING AGENCY/SPONSOR: N/A  
IRB COMMITTEE ACTION: Expedited Review Approval  
PERIOD OF APPROVAL: 08/03/2015 to 08/02/2016  
**Lawrence A. Hosman, Ph.D.**  
**Institutional Review Board**

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