

MIRANDA REASONING AND COMPETENT WAIVER DECISIONS: ARE MODELS  
OF LEGAL DECISION MAKING APPLICABLE?

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Miranda understanding, appreciation, and reasoning abilities are essential to courts' determinations of knowing and intelligent Miranda rights waivers. Despite the remarkable development of Miranda research in recent decades, studies have generally focused on understanding and appreciation of Miranda rights, but have not examined Miranda reasoning and waiver decisions. Therefore, examining the nature of defendants' decisional capacities constitutes a critical step in further developing theoretical and clinical models for competent Miranda waiver decisions. The current study evaluated Miranda waiver decisions for 80 pretrial defendants from two Tulsa-area Oklahoma jails. Previously untested, the current study examined systematically how rational decision abilities affect defendants' personal waiver decisions. Components from general models of legal decision making, such as decisional competence and judgment models, were examined to determine their applicability to Miranda waiver decisions.

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## CHAPTER 1

### INTRODUCTION

According to the Fifth Amendment of the United States Constitution, no person “shall be compelled in any criminal case to be a witness against himself.” This safeguard provides custodial suspects with the unconditional right to remain silent during legal proceedings. Despite this safeguard afforded to the criminally accused, it is well-documented that an overwhelming majority (i.e., approximately 80%) of suspects waive their right to silence without the benefit of legal counsel (Kassin et al., 2007; Leo, 1996; Leo & White, 1999; Moston, Stephenson, & Williams, 1993). After waiving their rights, Gudjonsson (2003) found that about half of suspects subsequently provide incriminatory statements, if not full confessions. These confessions often have catastrophic consequences when subsequently introduced as incriminating evidence in court.

Confessions have been described by Kassin and Gudjonsson (2004, p. 35) as “the government’s most potent weapon” when introduced as evidence in a criminal prosecution. As evidence of their potency, Wrightsman and Kassin (1993) estimated that 50% of criminal convictions are based solely on confessions. Similarly, Oberlander Goldstein, and Goldstein (2003) concluded that a confession is the most salient factor for predicting a guilty verdict. Due to the far-reaching consequences of confessions, the practical application of the Fifth Amendment right to silence has become increasingly scrutinized in the legal and social sciences literature as well as in forensic practice (Helms, 2003).

Over the last century, the Supreme Court has developed requisite guidelines that must be followed for confession evidence to be considered admissible in court. Kassin and Gudjonsson (2004) identified two primary reasons for such guidelines: (a) protecting the accused against violations of their Constitutional rights, and (b) minimizing the risk for false confessions by innocent suspects. On the first point, Constitutional protections are afforded to criminal defendants by the Fifth and Sixth Amendments. The Fifth Amendment provides defendants the right to remain silent when faced with questions that could incriminate them in a criminal matter. With respect to the Sixth Amendment, the U.S. Supreme Court held in *Johnson v. Zerbst* (1938, p. 468) that if the accused has not competently waived the right to be represented by legal counsel, the “Sixth Amendment stands as a jurisdictional bar to a valid conviction and sentence depriving him of his life or his liberty.” On the second point, the accuracy of suspects’ inculpatory statements cannot be taken for granted because individuals often confess to crimes they did not commit (Kassin & Keichel, 1996; Gudjonsson, 2003).

Constitutional protections extend beyond the arrest itself and apply to various stages of criminal proceedings (Bonnie, 1992). Across these stages, courts are frequently faced with making determinations of competence based on relevant information about an individual’s legally relevant capacities (Grisso, 2003). As noted in the previous paragraph, often the first stage involves suspects’ capacity to understand legal rights and make valid decisions whether to waive or assert these rights. Specifically, custodial suspects must be competent to waive their Miranda rights to silence and legal counsel (*Miranda v. Arizona*, 1966). In the case of a disputed waiver,

courts must determine whether the suspect's statements are admissible at trial based on a defendant's level of competence.

Determinations of valid Miranda waivers typically include evaluations by mental health professionals, assessing whether a suspect had the necessary capacities to provide a valid waiver (Grisso, 2003; Oberlander, Goldstein, & Goldstein, 2003; Rogers & Shuman, 2005). In that regard, courts rely on forensic practitioners to provide reliable information with respect to a defendant's psycholegal abilities. This interaction of psychology and law requires development of theoretical conceptualizations for valid Miranda waivers grounded by policy and relevant empirical research. In a review of Miranda issues, the following sections (a) trace the historical development of Constitutional protections, (b) review key empirical findings with respect to Miranda-related competencies, and (c) propose next steps to address limitations of previous Miranda research.

### Review of Miranda Relevant Legal Cases

Constitutional protections of the criminally accused have evolved gradually over the past 75 years. Coercive interrogation tactics were first acknowledged as a violation of Fourteenth Amendment due process rights by the Supreme Court in *Brown v. Mississippi* (1936). The Court's opinion barred the use of physical brutality as a means of extracting confessions. As a result, suspects' statements obtained in this manner were ruled inadmissible. Law enforcement, however, quickly adjusted to this limitation by shifting their interrogative techniques to rely on psychological rather than physical coercion. As a result, the Supreme Court began to expand legal standards regarding confessions to address the use of psychologically coercive interrogation methods. In

*Spano v. New York* (1959), the Court prohibited the use of such overwhelming psychological pressure. Like physical brutality, the Court held that using psychological coercion was unconstitutional as a means of eliciting confession statements. These two early Supreme Court cases set the stage for landmark decisions in the 1960s, all aimed at developing procedural safeguards for the rights of the accused.

In *Escobedo v. Illinois* (1964), the Court held that police must allow criminal defendants the opportunity to consult with legal counsel when the focus of the interrogation is directed at a specific suspect and is intended to elicit a confession. To ensure compliance with this protection, the Supreme Court held that any confession elicited without permitting opportunity to consult with an attorney is not admissible at trial. Following *Escobedo*, courts in criminal cases still faced practical problems. Law enforcement officers were not legally required to provide standard advisements of legal rights. Consequently, many suspects were not aware of their Constitutional protections. Without such awareness, suspects could not be expected to make informed decisions whether to invoke their rights.

To ensure suspects are sufficiently aware of their rights, the Supreme Court in *Miranda v. Arizona* (1966) required the Miranda warnings or other “fully effective means” (p. 444). More specifically, police must warn all suspects, “in clear and unequivocal terms” (p. 467) of their Constitutional protections when taken into custody and prior to any questioning by the police. In justifying the requirement of universal Miranda warnings, the majority opined that “only through such a warning is there ascertainable assurance that the accused was aware of his right” (p. 472). As

specifically required in *Miranda*, custodial suspects should be informed regarding the nature of their legal rights to silence and legal counsel.

The standards set forth in *Miranda* (1966) were intended to guarantee the protected choice of silence and the availability of legal expertise at all stages of custodial proceedings. With respect to the right to silence, any suspect “must be warned prior to any questioning that he has the right to remain silent, and that anything he says can be used against him in a court of law” (p. 479). The Court explained the basis of this warning in the following language (p. 476):

This warning is needed in order to make him aware not only of the privilege, but also of the consequences of forgoing it. It is only through an awareness of these consequences that there can be any assurance of real understanding and intelligent exercise of the privilege. Moreover, this warning may serve to make the individual more acutely aware that he is faced with a phase of the adversary system – that he is not in the presence of persons acting solely in his interest.

Therefore, the *Miranda* Court reasoned standard legal rights advisements would inform custodial suspects of (a) their fundamental right to silence, (b) the consequences of waiving the right to silence, and (c) the adversarial nature of interrogations.

The Supreme Court in *Miranda* (1966, p. 469) acknowledged the need to ensure the right to “choose between silence and speech remains unfettered throughout the interrogation process.” This is a choice that may easily be coerced in the absence of legal counsel. The Supreme Court (p. 469) emphasized the presence of counsel is “indispensable to the protection of the Fifth amendment privilege” and cannot be subverted by a lack of financial means. As a result, *Miranda* warnings must provide relevant awareness and knowledge regarding the right to legal counsel. Specifically, a custodial suspect must be advised “that he has the right to the presence of an attorney,

and that if he cannot afford an attorney one will be appointed for him prior to any questioning if he so desires” (p. 479).

The Supreme Court in *Miranda v. Arizona* (1966), affirmed the primary purpose of the presence of an attorney is to ensure the protection of the right to silence (Godsey, 2006). If suspects make an “unfettered” decision to proceed with law enforcement questioning, the presence of legal counsel seeks to fulfill several subsidiary functions related to “mitigating the dangers of untrustworthiness” (*Miranda v. Arizona*, p. 470) commonly present during police questioning. Based on Godsey’s analysis of *Miranda*, these safeguards include: (a) preventing the use of third-degree interrogation tactics, (b) securing a witness to testify regarding police misconduct if it should occur, and (c) ensuring defendants’ statements are accurately reported to the court.

According to the Supreme Court, the right to counsel should not be contingent on the financial means of suspects to retain an attorney. As previously mentioned, suspects must be advised not only of their right to an attorney, but also that if indigent, an attorney will be appointed to represent them (*Miranda v. Arizona*, 1966). The Supreme Court emphasized that any “warning of a right to counsel would be hollow if not couched in terms that would convey to the indigent – the person most often subjected to interrogation – the knowledge that he too has a right to have counsel present” (p. 473). In serving its fundamental purpose, the component on free legal services affirms that the right to counsel is available to all defendants irrespective of their ability to pay (Godsey, 2006).

Constitutional protections could easily be thwarted if they apply only to the time of arrest. Therefore, the Court in *Miranda v. Arizona* (1966, p. 479) specified that

custodial suspects' decision to invoke these rights "must be afforded to [them] throughout the interrogation." Interrogative questioning must be stopped immediately upon a defendant's unambiguous reassertion of Miranda rights. As a result, most jurisdictions include a component to inform suspects about their continuous opportunity to exercise their Fifth Amendment rights (Oberlander, 1998; Rogers, Harrison, Shuman, Sewell, & Hazelwood, 2007; Rogers, Hazelwood, Harrison, Shuman, & Sewell, 2008).

The Supreme Court's reasoning in *Miranda v. Arizona* (1966) emphasized the protection of Constitutional rights of all custodial suspects subjected to interrogation procedures. To minimize police circumventions of these protections, its ruling forbids the admissibility of suspects' statements "unless it demonstrates the use of procedural safeguards effective to secure the Fifth Amendment's privilege against self-incrimination" (p. 444). The Miranda requirement was challenged by Congress but upheld in *Dickerson v. U.S.* (2000). Despite *Miranda* being generally upheld, subsequent appellate cases have stipulated circumstances in which Miranda warnings are not required. These Miranda exceptions are detailed below.

Miranda warnings only apply in custodial settings, thus the legal meaning of "custody" is essential to whether the warnings are legally required. For example, Miranda warnings are not required prior to brief questioning during routine traffic stops. In *Berkemer v. McCarty* (1984), the U.S. Court of Appeals reasoned that although the suspect is not free to leave under these circumstances, this brief detainment is not the functional equivalent of an arrest and subsequent custody. As another example, a person who comes to the police station to answer questions voluntarily is not considered a custodial suspect and is not afforded *Miranda's* (1966) protections.



Likewise, Miranda warnings are not required during routine booking questions.

Although clearly in a custodial setting, the U.S. Supreme Court in *Pennsylvania v. Muniz* (1990) reasoned this phase of custody is considered administrative rather than interrogative because it is not intended or likely to produce incriminating statements.

Other exceptions to Miranda apply to the nature of the setting and the spontaneity of the confession. As indicated by the U.S. Supreme Court (*Illinois v. Perkins*, 1990), the jail house informant exception to Miranda applies in situations where suspects are unaware they are speaking to a police officer or other informant. In this case, incriminating statements are admissible despite the absence of Miranda warnings when given to an undercover detective or a police informant, who has agreed to facilitate the disclosure of inculpatory information. As a result of the U.S. Supreme Court decision in *Rhode Island v. Innis* (1980), any spontaneous statement provided by a custodial suspect is admissible, even though the suspect has not been given Miranda warnings or is waiting on legal counsel to arrive after exercising Miranda. In that case, the Court described a spontaneous statement as any disclosure given outside of interrogative questioning or other police conduct likely to elicit incriminating evidence.

A public safety exception to Miranda was first outlined by the U.S. Supreme Court in *New York v. Quarles* (1984). As a result of this case, a suspect may be questioned prior to administering Miranda warnings under circumstances which require immediate protection of the public. For example, the public safety Miranda exemption would apply if the suspect has vital information regarding the location of an unattended weapon or missing person. However, the scope of the public safety exception is broad. As recently illustrated in *People v. Davis* (2009), the California Court of Appeals found

the public safety exception applied despite the fact that 64 days had passed since the disappearance of girl later found to be murdered.

### Waiver of Miranda Rights

*Miranda v. Arizona* (1966) required not just a cursory advisement of suspects' rights, but stipulated that suspects may not be interrogated until they have waived their rights. According to *Miranda*, law enforcement officers may only proceed with custodial interrogations after defendants are made aware of their rights and clearly indicated their decision to waive Constitutional protections. After being Mirandized, suspects are typically asked to waive their Constitutional protections. As a matter of documentation, they are often asked to sign a Miranda waiver form indicating their understanding of rights and willingness to proceed. However, the Supreme Court has determined a formal waiver is not required. For example, in *North Carolina v. Butler* (1979, p. 373), the U.S. Supreme Court held that "once the warnings are given and a suspect agrees to talk, it is generally assumed that a waiver is knowing, intelligent, and voluntary." In that case, the Court further acknowledged that "an express written or oral statement of a waiver of the right to remain silent or of the right to counsel is usually strong proof of the validity of that waiver" (p. 373).

Supreme Court decisions provide contrasting ideals about whether custodial suspects must explicitly waive their Miranda rights or if an implicit waiver is sufficient. The landmark case of *Miranda v. Arizona* (1966) held that "presuming waiver from a silent record is impermissible ...evidence [must] show that an accused was offered counsel but intelligently and understandingly rejected the offer" (p. 475). Despite this requirement of explicit waiver statements outlined in *Miranda*, the Supreme Court in

*Thompkins v. Berghuis* (2010) recently opined that implicit (i.e., inferred by suspect's behavior) waivers are sufficient. *Thompkins* held that defendants must explicitly state they wish to exercise their right to silence. In contrast to *Miranda*, the Court in *Thompkins* permitted an implied waiver based on silence. Thus, current standards allow law enforcement to infer *Miranda* has been waived based on defendants' statements (e.g., breaking silence) after *Miranda* warnings are administered. In summary, Courts are less concerned with about whether a waiver was provided implicitly or explicitly. Rather, as subsequently described, valid waivers must be provided knowingly, intelligently, and voluntarily within the context of the totality of circumstances.

#### Validity of Miranda Waivers

The Supreme Court has held consistently that a valid waiver of *Miranda* rights must be made *knowingly, intelligently, and voluntarily* (*Godinez v. Moran*, 1993; *Iowa v. Tovar*, 2004; *Miranda v. Arizona*, 1966; *Moran v. Burbine*, 1986). The legal framework for establishing a valid waiver of *Miranda* rights is clearly articulated, although the meaning of its three prongs may have different, and even conflicting, interpretations (Rogers & Shuman, 2005). Consequently, no bright-line standard is available for determining the minimum capacities required for a valid waiver. As illustrated in the following sections, appellate courts have elaborated on their interpretations of these three prongs.

#### *Knowing and Intelligent Miranda Waivers*

Case law frequently conceptualizes a valid waiver of *Miranda* rights as having two distinct dimensions: (a) knowing and intelligent and (b) voluntary (*Colorado v.*

*Spring*, 1987; *Edwards v. Arizona*, 1981; *Johnson v. Zerbst*, 1938; *Moran v. Burbine*, 1986). Courts generally view knowing and intelligent waivers as a single prong, but differ on basic requirements for a valid Miranda waiver. As illustrated in the following paragraphs, case law addressing the knowing and intelligent prongs varies from narrow definitions to more complex conceptualizations.

As a minimal standard, *Johnson v. Zerbst* (1938) and *Edwards v. Arizona* (1981) represent two U.S. Supreme Court cases that concur a waiver is considered knowing and intelligent when the defendant simply has a basic awareness or knowledge of the legal rights. Similarly, in *People v. Bernasco* (1990), the Supreme Court of Illinois held that a Miranda waiver was both knowing and intelligent if the defendant had a basic understanding of the words used to convey the Miranda rights. According to *People v. Bernasco*, the validity of Miranda waivers is not predicated on a defendant's "ability to understand far-reaching legal and strategic effects of waiving one's rights" (p. 964). By this formulation, a waiver of rights is valid if suspects simply knew they could remain silent and request a lawyer, regardless of whether they were aware of the consequences of waiving these rights.

A more complex conceptualization of the knowing and intelligent prongs is exemplified by *Moran v. Burbine* (1986, p. 421). In that case, the U.S. Supreme Court described a valid waiver as one made with "full awareness of both the nature of the right being abandoned and the consequences of the decision to abandon it." In addition to the basic understanding described in the aforementioned legal cases, *Moran v. Burbine* requires the capacity to understand the consequences of waiving Constitutional rights. According to *United States v. Ruiz* (2002), a U.S. Supreme Court case, knowing and

intelligent requires two distinct capacities. Like *Moran*, defendants must understand the nature of the rights. As a more complex task, defendants must also understand how the rights apply to their personal legal circumstances. This distinction was illustrated more recently in *Iowa v. Tovar* (2004, p. 1387) where the U.S. Supreme Court reasoned that valid waivers require a “sufficient awareness of the relevant circumstances” to ensure the defendant “knows what he is doing and his choice is made with eyes open.”

Although awareness of circumstances requires some relevant knowledge, *Moran v. Burbine* (1986) limited the extent of this information ruling that total disclosure (e.g., the specific charges under investigation) is not necessary for a valid waiver of rights. The Court reasoned that the Constitution does not require defendants be informed of all information useful in making a waiver decision or a subsequent decision to confess. As an example, in *Colorado v. Spring* (1987) the U.S. Supreme Court held that information regarding the full scope of interrogation was irrelevant to whether a waiver of rights is knowing and intelligent.

Some U.S. Court cases have explicitly addressed the necessary rational abilities for a competent waiver of rights decision. In the same year as the landmark *Miranda* decision, the Supreme Court in *Rees v. Peyton* (1966) held that the key to determining a defendant’s competence is “whether he has the capacity to appreciate his position and make a rational choice with respect to continuing or abandoning further litigation or on the other hand whether he is suffering from a mental disease, disorder, or defect which may substantially affect his capacity” (p. 314). In *Cooper v. Griffin* (1972, p. 1146), the U.S. Court of Appeals re-emphasized rational abilities asserting that “the requirement of knowing and intelligent waiver implies a rational choice based upon

some appreciation of the consequences of the decision.” As outlined more recently in *Godinez v. Moran* (1993, p. 394), a defendant’s waiver of rights is legally competent “only if he has the capacity for reasoned choice among available alternatives.” This conceptualization emphasizes the necessary role of decision making in order to make knowing and intelligent Miranda waiver decisions.

### *Voluntary Miranda Waivers*

The third prong of a Miranda waiver decision addresses its voluntariness. For this standard, U.S. Supreme Court cases have consistently held that volitional aspects of the Miranda waiver are relevant rather than any particular defendant characteristics. That is, when the voluntariness of a waiver is disputed, courts are concerned primarily with determining if a waiver decision occurred outside coercive influences. Several pre- and post- Miranda legal cases have addressed different types of coercive law enforcement procedures. In *Brown v. Mississippi* (1936), as previously noted, the U.S. Supreme Court prohibited physical brutality as a basis for involuntary confessions. *Moran v. Burbine* (1986) broadened the standards to address psychological coercion by prohibiting waivers that result from intimidation, coercion, or deception. In the same year, however, the U.S. Supreme Court decision in *Colorado v. Connelly* (1986) narrowed the voluntariness standard. *Connelly* excluded involuntariness resulting from internal pressure, such as command hallucinations. This decision clarified that internal coercion (e.g., psychotic symptoms) by itself was not sufficient to result in inadmissible confessions. As a result of *Connelly*, the presence of coercive police conduct is a necessary predicate to the finding that a confession was involuntary. This analysis was affirmed more recently by a U.S. Court of Appeals in *Rice v. Cooper* (1998) where the

Court clarified a waiver of rights can only be rendered involuntary in the presence of coercive police activity.

### *Decision Rules for Determining Miranda Waiver Validity*

Determinations of valid Miranda waivers could be conceptualized as either *per se* or *totality of circumstances*. According to Grisso (2003), the *per se* approach – if adopted by a jurisdiction – could automatically render Miranda waivers invalid for certain designated groups (e.g., juveniles and mentally retarded individuals). In contrast, the *totality of circumstances* standard adopts a more individualized approach; each case is considered by weighing all the relevant factors. Currently, no jurisdictions have adopted *per se* decision rules for determining the validity of adult Miranda waivers. Instead, the *totality of circumstances* approach is utilized by the courts to evaluate whether a valid waiver of rights occurred (*Dickerson v. U.S.*, 2000; *Miranda v. Arizona*, 1966). As summarized by the U.S. Supreme Court, “only if the *totality of circumstances* surrounding the interrogation reveals both an uncoerced choice and the required level of comprehension may the court conclude that the Miranda rights have been waived” (*Moran v. Burbine*, 1986, p. 76).

The *totality of circumstances* requires consideration of two different domains (see Grisso, 2003) when determining the validity of a Miranda waiver: (a) the suspect’s abilities and (b) the context in which the waiver was obtained. Based on a review of legal cases regarding disputed Miranda waivers, Grisso found no clear pattern for how courts identify and weigh factors relevant to the *totality of circumstances*. The weight given to any individual characteristic will likely vary by its relevance to a particular case.

Thus, the case-by-case determination examines the defendant's level of competence, as well as the adequacy of police procedures.

U.S. Supreme Court appellate cases have outlined what typical factors should be included under the totality of circumstances decision rule (*Coyote v. U.S.*, 1967; *Fare v. Michael C.*, 1979; *Johnson v. Zerbst*, 1938; *West v. United States*, 1967). While not specifying the relative importance of these factors, relevant factors include background information, such as age, level of education, and previous experience with the legal system. In addition, psychological characteristics of the defendant, including intelligence, poor language ability, illiteracy, and mental disorders are typically considered under the totality of circumstances (Frumkin, 2000; Grisso, 1998; Oberlander, 1998; Oberlander & Goldstein, 2001). Beyond defendants' abilities, circumstances of the arrest, such as the defendant's mental and physical state at arrest (e.g., intoxication) and police conduct are also relevant to the validity of a waiver.

As noted, procedural factors may potentially influence determinations of the validity of Miranda waivers. For instance, the U.S. Supreme Court in *West v. United States* (1968) acknowledged that the mode of administration and other situational variables must be considered. As summarized by Oberlander, Goldstein, and Goldstein (2003), procedural factors include (a) the manner in which defendants are informed of their legal rights, (b) persons present during interrogation, (c) interrogative techniques employed by police, and (d) whether a suspect was held incommunicado for an excessive period of time before the interrogation occurred.



## Review of Research on Miranda-Related Competencies

Grisso (2003) summarized how case factors can affect the totality of circumstances. The two general categories of case factors include: (a) characteristics of the defendant that potentially diminish or augment their capacities to make a knowing, intelligent, and voluntary waiver of Miranda rights, and (b) the situational circumstances in which defendants provide Miranda waivers and subsequent statements. Accordingly, research on Miranda-related competencies can be grouped by these two categories. With respect to defendant characteristics, the relationships of Miranda understanding to cognitive abilities and psychological functioning have been emphasized. For procedural differences, Miranda research explores the type of advisement (oral or written) and other environmental factors. The following sections highlight key research on these two categories (defendant characteristics and procedural differences).

### *Cognitive Functioning and Miranda-Related Competencies*

This section reviews empirical findings regarding the impact of cognitive abilities on Miranda-related capacities applying the totality of circumstances approach. As detailed below, previous research has consistently concluded that cognitive abilities are fundamental to performance on virtually all Miranda-related tasks. Intelligence and basic comprehension skills are particularly relevant to the capacity for Miranda warning comprehension.

With respect to intelligence, research focused initially on the relationship between overall intellectual functioning and Miranda abilities. In his early research, Grisso (1981) found that level of Miranda rights comprehension is related to general intellectual ability.

According to this his research, intelligence was the only predictor of Miranda abilities in both adult and juvenile samples. More recently, attention has focused on evaluating Miranda-related abilities in populations with pervasive intellectual deficits, such as mentally retarded individuals.

Strong and consistent evidence from studies with mentally retarded individuals (Everington & Fulero, 1995; Fulero & Everington, 1999; O'Connell, Garmoe, & Goldstein, 2005) has predictably indicated that this population is significantly more likely to exhibit impaired Miranda abilities than cognitively intact individuals. For example, Everington and Fulero tested Miranda comprehension of adult probationers with and without mental retardation. Substantial percentages of probationers with mental retardation failed to understand key portions of the Miranda warnings, including (a) the right to remain silent (50.0%), (b) potential use of statements as evidence in court (55.0%), and (c) the right to an attorney before and during questioning (39.0%). Overall, two-thirds (67.0%) of probationers with mental retardation failed to meet minimal criteria for competence. These results confirmed findings from their previous study (Fulero & Everington), which revealed 68.0% of mentally retarded probationers lacked basic understanding of one or more core Miranda components. In comparison, studies (Everington & Fulero; Grisso, 1981) found much lower failure rates for those individuals without impaired cognitive abilities (17.0% and 23.1% respectively). Even more concerning, O'Connell and colleagues (2005) found that 50.0% of adults with mild mental retardation failed to comprehend *all five* Miranda components. In summary, empirical evidence clearly illustrates that mentally retarded suspects often fail to exhibit Miranda abilities at levels sufficient for a knowing and intelligent waiver of rights.

Although less severe, individuals with borderline intelligence may exhibit markedly diminished Miranda abilities. To date, two studies (Blackwood, 2009; Cloud et al., 2002) have examined Miranda abilities among individuals with borderline intellectual functioning. Using a multiple-choice recognition test based on Grisso's (1998) Miranda instruments, Cloud and colleagues found all research participants with borderline intellectual functioning failed to have good understanding for a knowing or intelligent waiver of rights. In this small sample, the average comprehension rate was merely 45.0% of the Miranda components. More recently, Blackwood examined Miranda comprehension among pretrial defendants with borderline intellectual abilities by asking them to paraphrase the five components included in Miranda warnings. Despite methodological differences between the two studies, Blackwood also found that (a) almost all (90.5%) defendants with borderline intellectual abilities failed to comprehend at least one of the Miranda components, and (b) the average comprehension rate for the defendants was only about 50% of the Miranda warning components. These two studies provide initial support that individuals with borderline intelligence often fail to adequately comprehend Miranda warnings. Considering the high prevalence of borderline intellectual functioning in jail populations, Miranda research on cognitive abilities must be broadened to include this classification.

Beyond intelligence, adequate Miranda warning understanding requires sufficient reading and listening skills to process and comprehend the language of Miranda warnings. Early research with juveniles (Wall & Furlong, 1985) found that reading and listening abilities were significantly correlated with each other and with measures of

Miranda comprehension. However, results from their seminal study are limited because they did not include adults or any persons with known criminal histories.

Tupling and Salekin (2005) conducted the first investigation of comprehension and Miranda abilities in an adult population. They improved on Wall and Furlong's (1985) research by using recently arrested offenders and applying Grisso's (1998) standardized tests of Miranda understanding. Using the Comprehension of Miranda Rights (CMR), their analysis failed to find listening comprehension as a significant correlate of the ability to accurately paraphrase Miranda warnings. For the simpler task of recognition (i.e., Comprehension of Miranda Rights - Recognition), however, listening comprehension predicted defendants' ability to correctly select their rights from a list of alternatives.

As part of programmatic research on Miranda abilities, Rogers, Harrison, Hazelwood, and colleagues (2007) examined Miranda comprehension in a very specific population of mentally disordered defendants. In addition to limited cognitive abilities, these pretrial defendants had severe Axis I psychological disorders. Besides intelligence, reading comprehension was the only variable that significantly discriminated between good and poor Miranda understanding. Defendants with poor Miranda understanding exhibited low levels of reading and listening abilities at the fourth and fifth grades respectively. Moreover, their reading and listening comprehension levels were twice as low as their counterparts with good Miranda understanding. Blackwood (2009) found a similar trend among detainees in the general population where reading and listening abilities were at least two grades lower for those with poor Miranda understanding.

### *Psychological Functioning and Miranda-Related Competencies*

During the last decade, scholars have discussed the effects of mental disorders on Miranda waiver decisions. Drawing on interrogation literature, Gudjonsson (2003) advised that mental disorders, such as schizophrenia or depression, can impair cognitions and judgment required to make personal legal decisions. More specifically, Rogers and Shuman (2005) concluded that certain psychotic episodes may significantly impede intelligent waivers of Miranda rights. For example, defendants with paranoid delusions may misunderstand the adversarial nature of the interrogation. As such, some psychotic defendants may not fully appreciate the nature and consequences of Miranda waiver decisions.

Research findings (Cooper & Zapf, 2008; Rogers, Harrison, Hazelwood, et al., 2007; Viljoen, Roesch, & Zapf, 2000) illustrate the detrimental effects of mental disorders on Miranda abilities. For example, Viljoen and colleagues found that defendants with psychotic disorders exhibited greater levels of impaired legal abilities when compared to their non-psychotic counterparts. As previously noted, Rogers, Harrison, Hazelwood, and colleagues evaluated Miranda comprehension for mentally disordered defendants recruited from an inpatient competency restoration program. Greater levels of overall psychological impairment (i.e., lower GAF scores) predicted poor Miranda comprehension and reasoning. Even with simple Miranda warnings (i.e., < 6<sup>th</sup> grade reading level), a majority (63.6%) of offenders with mental disorders failed to have full understanding. Mentally disordered offenders often exhibited only limited ability to apply their comprehension of the warnings to their own cases. Soon after their Miranda advisements, only 11.2% reported risks of self-incrimination as a possible

reason for invoking rights and seeking legal advice. Furthermore, a substantial percentage (21.6%) misunderstood that their silence could be used against them in subsequent court proceedings (Rogers, Harrison, Hazelwood, et al.).

Using a non-forensic sample, Cooper and Zapf (2008) evaluated the Miranda comprehension of psychiatric inpatients. Compared to Grisso's (1998) normative offender sample, their psychiatric inpatients obtained significantly lower scores on measures of (a) basic Miranda warning understanding, (b) comprehension of Miranda vocabulary, and (c) appreciation of Miranda rights. Even when controlling for level of intelligence, psychiatric symptoms significantly predicted impaired Miranda abilities. Based on these results, it appears that psychologically impaired individuals often lack the ability to meaningfully apply essential information to their legal situations.

Mentally disordered individuals are commonly involved in the criminal justice system. Rogers, Harrison, Hazelwood, and colleagues (2007) estimated that 695,000 psychologically impaired suspects are advised of their Miranda rights each year in the United States. However, Viljoen, Roesch, and Zapf (2000) noted that courts rarely consider a suspect's mental health as a deciding factor related to a suspect's competency to waive Miranda rights and provide an admissible confession. Together, these research findings illustrate the importance of examining the presence and severity of psychological disorders in the context of Miranda waiver evaluations.

#### *Procedural Differences and Miranda-Related Competencies*

The Court in *Miranda* (1966) intended to provide "concrete constitutional guidelines for law enforcement agencies and courts to follow" (pp. 441-442) in order to ensure adequate protection of criminal defendants' rights. As a uniform solution

(Godsey, 2006), the Miranda decision required that custodial suspects must be clearly informed of their right to silence and the consequences of relinquishing it. However, no standard wording or method of administration for Miranda warnings was adopted. Post-Miranda cases have since rejected the concept of standard Miranda language. In *California v. Prysock* (1981), for example, the U.S. Supreme Court held that the exact language is of little significance, and that no specific wording is necessary to fulfill *Miranda's* requirements. They argued that substance rather than specific wording is most critical in conveying Miranda rights. As a result, the litmus test is whether the warnings "reasonably convey" suspects' legal rights (p. 361). In *Missouri v. Seibert* (2004), the U.S. Supreme Court re-affirmed that no magic words are required to satisfy Miranda warning and waiver requirements. The required content of Miranda advisements was recently challenged in *Florida v. Powell* (2010), where the defense argued that Powell was not specifically advised of his right to have an attorney present during questioning. Instead, he was advised that he could consult legal counsel *before* questioning and that he could assert his rights at *any time*. The Florida Supreme Court held that the advisement constituted an inadequate waiver. In contrast, the U.S. Supreme Court overturned the lower court's decision and held that this advisement of legal rights sufficiently satisfied *Miranda's* requirements. Based on the combination of Miranda warning components, the Court held the defendant could reasonably infer the right to counsel also applied to interrogation.

The absence of such standardization allows jurisdictions to construct their own versions of the Miranda warning. As a result, the language and administration procedures used to convey Miranda components differ across jurisdictions. The extent

of these cross-jurisdictional variations was virtually unexplored until the last decade. In recent years, however, researchers have shed light on the magnitude of differences observed in versions of Miranda warnings and waivers currently used.

On the most basic level, research has focused on the number of unique versions of Miranda warnings. Greenfield, Dougherty, Jackson, Podbody, and Zimmerman (2001) were the first to examine variations in Miranda warnings. For 21 New Jersey counties, they found 16 (76.2%) unique versions. Expanding on Greenfield and colleagues' groundbreaking study, Helms (2003) analyzed 54 warnings from federal and state jurisdictions, and found 31 (57.4% unique) different versions for state jurisdictions alone. Most recently, Rogers and his colleagues (Rogers, Harrison, Shuman, Sewell, & Hazelwood, 2007; Rogers, Hazelwood, Harrison, Sewell, & Shuman, 2008) conducted two large-scale surveys of nationally representative Miranda warnings. In the first survey of 560 Miranda warnings, their analysis revealed 532 (i.e., 95.0% unique) distinct Miranda variations used in United States jurisdictions. The second survey (Rogers, Hazelwood, Harrison, et al., 2008) closely mirrored this percentage of unique variations. For the 385 additional warnings, 356 (92.5%) were unique and not repeated in either survey.

According to Rogers, Shuman, and Drogin (2008), the traditional assumption regarding the uniformity of Miranda warnings has been convincingly disproved. Rather, the opposite is true: the vast majority of Miranda warnings are unique in their wording. Because of this heterogeneity, Weisselberg (2008) argued that we can no longer assume all Miranda warning versions completely and accurately inform suspects of their



legal rights. As a result, research has begun to examine differences in Miranda warning comprehension for warnings with different reading levels and method of administration.

### *Reading Levels of Miranda Warnings*

The complex language of Miranda warnings has been the focus of recent studies as a critical factor limiting their comprehensibility. These studies relied on the widely used Flesch-Kincaid (Flesch, 1950) to estimate the level of reading comprehension required to comprehend Miranda warnings. The next paragraphs discuss the complexity of general Miranda warnings and how this level of complexity compares to the average capacities of defendants.

Studies have consistently documented cross-jurisdictional variations in Miranda warning reading levels. Focusing on within-state jurisdictions, studies (Greenfield et al., 2001; Kahn, Cooper, & Zapf, 2006) have revealed remarkable variation in reading levels ranging from fourth grade to third year of college. Helms (2003) analyzed state and federal Miranda versions and also documented a substantial range of reading levels. More recently, Rogers and his colleagues (Rogers, Harrison, Shuman, et al., 2007; Rogers, Hazelwood, Harrison, et al., 2008) examined reading levels of Miranda warnings nation-wide. Across their two surveys, they consistently reported Miranda warnings that virtually cover the full spectrum in reading difficulty (i.e., grades 2.8 to 18). In summary, studies have convincingly demonstrated that a wide range of abilities are necessary to understand Miranda warning variations used across American jurisdictions.

The limited literacy of many defendants poses a formidable barrier to Miranda comprehension, especially for warnings with difficult reading levels (Rogers, Harrison,

Shuman, et al., 2007). Any major disparity between the estimated reading level of a Miranda warning and a defendant's limited reading comprehension is most concerning. Some general conclusions can be drawn from research on inmate literacy and nationally-representative Miranda warnings. According to literacy data (Harlow, 2003), most inmates' comprehension levels are estimated at sixth or seventh grade. However, Rogers, Hazelwood, Harrison, and colleagues (2008) found that a large majority (79.1%) of Miranda warnings require reading skills above sixth grade, thus, exceeding the capacities of many defendants. It is evident that a substantial number of defendants will lack sufficient reading skills necessary for adequate comprehension of most Miranda warnings.

Recent research has empirically evaluated how reading levels affect the understanding of Miranda warnings. For example, Blackwood (2009) compared recently arrested defendants' comprehension for Miranda warnings with five different Flesch-Kincaid reading levels. As expected, Miranda comprehension declined with each increase in level of reading difficulty. Predictably, this effect is stable across diverse groups of criminal defendants. For example, Rogers, Harrison, Hazelwood, and colleagues (2007) found the same general effect for reading level on Miranda understanding among offenders with psychological and cognitive impairments.

A critical demarcation in comprehension of Miranda warnings occurs at reading levels above eighth grade. Studies have reported more than 75.0% of defendants in the general population (Blackwood, 2009) and 89.0% of mentally disordered defendants (Rogers, Harrison, Hazelwood, et al., 2007) failed to have adequate Miranda understanding for Miranda warnings at or above eighth grade. This finding is not

surprising considering the limited literacy skills of most inmates (Harlow, 2003). Of practical importance, 69.6% of Miranda warnings require reading skills exceeding eighth grade (Rogers, 2008), and such warnings are incomprehensible to a majority of defendants.

Reading levels of Miranda warnings and reading comprehension of criminal suspects have direct implications for evaluating whether a waiver is knowing and intelligent. Courts routinely seek assistance for evaluating characteristics of a defendant (e.g., intelligence and academic skills) whose Miranda competence is being challenged. In contrast, it is much less common to examine the reading level of the Miranda warning given (Stone, 2000). A critical question in Miranda waiver evaluations is whether defendants have sufficient reading skills to read, process, and comprehend the information communicated in written Miranda warnings administered during arrest. If a defendant's reading skills are significantly below that of a Miranda warning's estimated reading level, it can be reasonably assumed the defendant cannot comprehend written warnings. A second reasonable assumption is that Miranda warnings with reading levels above eighth grade will generally provide faulty, inadequate, or incomplete understanding for many custodial suspects.

#### *Method of Administration and Miranda Comprehension*

The Supreme Court in *Miranda v. Arizona* (1966) did not specify any particular method of administration, oral or written, for advising suspects of their rights. Post-Miranda cases, such as *Colorado v. Spring* (1986) and *Thai v. Mapes* (2005), have consistently clarified that either oral or written Miranda advisements are sufficient to fulfill Constitutional requirements. As these cases illustrate, the Court is primarily

concerned about the substantive content, rather than mode of advisement. As a result, the method for administering the warnings varies by jurisdiction (Grisso, 2003; Oberlander & Goldstein, 2001). In a review of Miranda practices, Oberlander and colleagues (2003) observed that police administer warnings either orally, in written format, or both. A recent police survey of 631 police investigators (Kassin and colleagues, 2007) found that a majority (67.0%) of defendants receive oral Miranda warning advisements with a smaller number of written administrations (29.0%). The remaining 4.0% were Mirandized via audiotape or videotape recordings. These variations raise questions about whether the method of Miranda advisement affects suspects' comprehension of the warning.

In that regard, initial empirical evidence raises doubt regarding whether oral warnings are nearly as effective as written warnings. In a study of recently arrested defendants, Blackwood (2009) compared defendants' Miranda understanding for oral compared to written warnings. She found Miranda understanding was compromised for oral advisements in twice as many cases. Overall, less than one-third of pretrial defendants manifested good understanding of orally administered Miranda warnings. Outside jail settings, Gillard and Rogers (2009) evaluated oral and written Miranda warnings with a sample of university students. While college students performed slightly better, they still found that students who were presented with oral Miranda warnings evidenced poorer comprehension than those with written advisements. A general conclusion from these findings is that oral Miranda administrations do not meet the U.S. Supreme Court criterion of "being at least as effective" as written administrations (*Miranda v. Arizona*, 1966, p. 444).

The Supreme Court assumed that Miranda warnings convey the required content across U.S. jurisdictions (Rogers, 2008; Weisselberg, 2008). Although the basic components are incorporated (Godsey, 2006), the reality is that language and administration differences may compromise suspects' understanding of the warnings. As discussed, empirical findings indicate warnings with reading levels above eighth grade and oral warnings of any grade yield impaired Miranda understanding for a substantial number of pretrial defendants. If communicated in a language or format that defendants cannot understand, Miranda warnings cannot effectively provide Constitutional protections.

#### Competence to Waive Miranda Rights as a Decisional Capacity

Decisional competence is fundamental to the Supreme Court's framework for knowing and intelligent waivers of legal rights. As outlined in *Godínez v. Moran* (1993, p. 394), a defendant is considered competent to waive legal rights "only if he has the capacity for reasoned choice among available alternatives." From a theoretical perspective, competence to rationally waive interrogative rights can be easily conceptualized using decision making models. Additionally, clinical frameworks for evaluating Miranda-related competencies, such as that outlined by Grisso (2003) and Rogers and Shuman (2005), discuss rational decision making as fundamental to competent waiver decisions. Although discussed from a conceptual perspective, no standardized method for measuring rational abilities exists for Miranda waivers. This section describes decisional models and their application to Miranda waiver decisions.

Common terminology emerges across models of decisional competence (e.g., Appelbaum & Grisso, 1998, 1995; Bonnie, 1992, 1993) and subsequent frameworks for

evaluating such legal competencies (e.g. Grisso, 2003). Requisite defendant capacities are divided into broad categories common across models. For simplicity, they are referred to as (a) understanding, (b) appreciation, and (c) reasoning (see Table 1). Each level of competence is incremental; reasoning requires understanding and appreciation, which rely on key knowledge (i.e., understanding) and the ability to apply (i.e., appreciation) knowledge to personal legal circumstances. These three levels of decisional competence reflect capacities required for rational decisions in legal contexts. They are described in further detail in subsequent sections, as nuanced differences occur between conceptualizations.

Table 1  
*Brief Description of Capacities Required at each Level of Decisional Competence*

Level of Competence	Capacity
1. Understanding	Basic knowledge of relevant facts
2. Appreciation	Ability to apply relevant facts to current situation
3. Reasoning	Ability to use information in a rational manner to reach a decision

### *Understanding*

The first level of decisional competence is broadly defined as the capacity to understand relevant information. Decisional models construe this level of competence as the fundamental basis for subsequent decisions. Without the requisite fund of knowledge, it is unrealistic to expect any rational choice can occur. Obviously, the type of knowledge required depends on the decision at hand, but generally involves a basic knowledge of the nature of key decisions and their consequences. As an analogue,

Appelbaum, Lidz, and Meisel (1987) studied informed consent requirements for competent medical decisions. They outlined relevant knowledge for understanding, such as the nature of the disorder and recommended treatment, alternative treatments, and the probable risks and benefits of each. Using Bonnie's (1992, 1993) model, Hoge, Bonnie, Poythress, and colleagues (1997) have similarly outlined specific legal information for decisional competence. Understanding requires (a) factual knowledge of rights and legal procedures and (b) plausible reasons for alternative legal decisions.

Clinical formulations of Miranda-related competencies (Grisso, 2003; Rogers & Shuman, 2005) outline functional abilities needed for Miranda understanding. For competence to waive Miranda rights, Grisso described the least demanding level of competence as an understanding of Miranda rights. This level requires a factual knowledge, including basic comprehension of both Miranda warning language and the legal rights the warnings are intended to convey. Rogers and Shuman's conceptualization involves a more demanding standard; it expands beyond Grisso's basic understanding of words and phrases used in Miranda warnings. Additionally, suspects must demonstrate an understanding of how a decision to waive Miranda rights may consequently affect their future (i.e., how the waiver applies to their legal case). Research suggests a surprising percentage of custodial suspects lack this basic capacity for understanding, although it is the basic foundation for competent decisions. As outlined in detail below, components of Miranda understanding include Miranda vocabulary, accurate recall, and sufficient comprehension of the recalled information.

Miranda vocabulary is the basic foundation for Miranda comprehension and reasoning (Rogers, Hazelwood, Sewell, Blackwood, & Rogstad, 2009). Comprehension

of Miranda warnings may be compromised as a result of complex legal terminology and words with multiple meanings (Rogers, Hazelwood, Sewell, et al., 2008). For example, the legal term “appointed” is commonly used in Miranda warnings, yet it is rarely understood by persons without a college education. Likewise, the meaning of unfamiliar terms, such as “indigent” may be easily confused. In fact, Rogers and colleagues (2009) found that a slight majority of both college students (51.3%) and recently arrested defendants (53.0%) mistakenly believed the term “indigent” meant “indicted.” Miranda understanding may also be impaired by words with multiple meanings. For example, the word “right” is easily understood by most with very little education (i.e., fourth grade) when referring to a direction, but it requires an eighth grade education when referring to legal privileges (Rogers, Hazelwood, Harrison, et al.). Miranda vocabulary for the particular warning given is the essential prerequisite to Miranda comprehension.

Substantial numbers of custodial suspects are likely affected by difficult Miranda vocabulary. On this point, Grisso (1981) found that two-thirds of adult probationers lacked comprehension for at least one of six critical Miranda words. For instance, 60.0% failed to understand the word “interrogation.” Contextual meanings were also problematic; 19.2% did not have an accurate definition of “right” as a legal term. The entire meaning of Miranda can be distorted if even a few key words are misunderstood. As a result of failed Miranda vocabulary, many criminal defendants lack the most basic functional ability associated with Miranda comprehension (Grisso, 2003).

Beyond vocabulary, Miranda comprehension requires sufficient awareness of the content communicated in the warnings (Grisso, 2003; Rogers & Shuman, 2005). In



order to provide a valid waiver of Miranda rights, suspects must have a basic understanding of their legal rights as the basis of deciding whether to exercise or relinquish those rights. Waivers made outside this understanding fail to meet legal standards for knowing and intelligent decisions. On this point, Rogers (2008) estimated that 318,000 criminal defendants waive their rights annually without understanding even half of the information communicated in Miranda warnings.

Many suspects fall short of knowing and intelligent Miranda waivers due to their failed understanding of Miranda warnings. Based on Grisso's (1998) normative data, 19.2% of adult offenders had poor Miranda understanding. Recently arrested defendants evidenced substantially higher rates (Blackwood, 2009). Over half (56.2%) failed to exhibit good Miranda understanding as measured by the ability to paraphrase Miranda warning components (i.e., Miranda Statements Scale (MSS); Rogers, 2005). This result is surprising considering the comparatively low benchmark (i.e.,  $\geq 70\%$ ) used for good comprehension. One plausible explanation for the disparity between studies conducted by Grisso and Blackwood is the recency of arrest. As compared to Grisso's sample of probationers in a community setting, Blackwood's defendants were detained and likely stressed by their recent arrest.

### *Appreciation*

Relevant knowledge has no meaning if defendants cannot appreciate how it applies in their circumstances. As the second level of decisional competence, appreciation generally refers to the ability to apply essential knowledge to an individual's own circumstances (see Table 1). Due to the incremental nature of decisional competence models, many individuals may exhibit sufficient knowledge, but not

appreciation (Grisso, 1997). Competent decisions involve sufficient appreciation of the nature and significance of the decision faced with (Bonnie, 1992, 1993; Grisso & Appelbaum, 1998). To test Bonnie's model of appreciation, Hoge and colleagues (1997) inquired about plausible reasons for important legal decisions. According to their conceptualization, appreciation simply requires the capacity to generate a reason for a decision that has any rational basis (i.e., not clearly implausible).

Grisso (2003) and Rogers and Shuman (2005) provide similar clinical conceptualizations for appreciation of the Miranda rights, but differ on several key elements. Grisso construes appreciation as an understanding of general functions of Miranda rights. According to Grisso, defendants must have accurate perceptions about the legal system regarding three pertinent aspects: the adversarial nature of police procedures, the potential value of attorney consultation, and the continuous nature of the right to silence. In addition to Grisso's formulation, Rogers and Shuman's case-specific conceptualization requires that defendants understand how their decisions will likely affect their own cases. Thus, appreciation requires knowledge about the personal and legal consequences of waiver decisions.

Defendants with inaccurate perceptions about their Constitutional protections may be unable to adequately apply this key information to their legal circumstances. Rogers (2008) examined common Miranda misconceptions held by university students by asking them to complete a brief true/false questionnaire (i.e., Miranda Quiz (MQ); Rogers, 2008). He found that 63.8% had two or more misconceptions about Miranda warnings. More recently, Rogers, Rogstad, Gillard, and colleagues (2010) tested and compare common Miranda misconceptions for university students and recently arrested

defendants. A majority of both students (58.7%) and defendants (68.6%) had inaccurate beliefs regarding the application of Miranda rights. Surprisingly, the college students generally performed no better than defendants. Under even the best circumstances, college-educated individuals frequently exhibit multiple flaws that diminish their appreciation of Miranda rights.

Defendants may acknowledge the adversarial nature of police questioning, but fail to fully appreciate the application to their own cases. As noted by Rogers and Shuman (2005), full appreciation requires awareness of Miranda waiver consequences. Grisso (1998) found that 97.0% of adult offenders understood the general purpose of interrogation is to elicit incriminating evidence. In contrast, 25.1% did not fully appreciate potential consequences of providing such incriminating evidence (i.e., used in court to prosecute them). Rogers and colleagues (Rogers, Rogstad, Gillard, et al., 2009) similarly reported that almost all (95.9%) defendants knew anything said to police would be used against them. However, about half (52.0%) inaccurately assumed statements made “off the record” could not be used to incriminate them and one-fourth (25.9%) falsely assumed a Miranda waiver is not valid unless it is signed by the suspect. In these cases, defendants are unable to fully appreciate Miranda rights because of these faulty assumptions that affect their application.

Defendants often lack specific insight about the advantages of seeking legal counsel, despite their general knowledge of this right. For general knowledge, most persons knew the general purpose of legal counsel (i.e., to assist in their defense) with estimates as high 90% (Grisso, 1998) and 88.4% (Rogers, Rogstad, Gillard, et al., 2009) being found in past studies. More specifically, however, 30.2% of pretrial

defendants failed to appreciate that the request for legal counsel would stop police questioning. Instead, these individuals falsely believed police could continue questioning until an attorney arrived. These common misconceptions about the right to an attorney may impair defendants' capacity for rational decision making when faced with case-specific applications of Miranda rights.

Appreciation of Miranda rights relies on accurate perceptions of the fundamental right to silence. Studies have shown two common misconceptions related to the right to silence: (a) failing to understand a "right" as an entitlement or protection and (b) misperceiving the continuous nature of the right to silence. Regarding the first misconception, Grisso (1998) found that 21.7% of offender adults failed to appreciate that they could not be punished or prosecuted on the basis of their silence. Furthermore, Rogers, Rogstad, Gillard, and colleagues (2009) found an even higher percentage (31.1%) of defendants failed to fully appreciate this right as a Constitutional protection. On the second point, both Rogers and colleagues and Grisso found a substantial minority did not conceptualize the continuous nature of the right to silence. Grisso found that 42.9% were unaware that their right to silence applies in future court proceedings (e.g., trial). Rogers and colleagues found a similarly large percentage (37.2%) erroneously believed the decision to give up their right to silence is permanent. These findings suggest defendants generally appreciate the immediate advantages of the right to silence, but often fail to grasp its application to future criminal proceedings. This lack of insight may affect their Miranda waiver decisions (e.g., continued questioning irrespective of the negative consequences). The practical effectiveness of Miranda warnings relied on the assumption that defendants can understand both the

general meaning and the legal significance of the warnings to their circumstances (Cloud et al., 2001). In contrast to practical expectations, many defendants fail to grasp the personal and legal significance of their Miranda rights.

### *Reasoning*

As the third level of decisional competence, reasoning requires rational abilities. As previously quoted, *Godinez v. Moran* (1993, p. 394) determined that competent decisions to waive legal rights require sufficient capacity for “reasoned choice among available options.” Accordingly, relevant models (Appelbaum & Grisso, 1988, 1995; Bonnie, 1992, 1993) include some level of rational reasoning in their conceptualizations of competent legal decisions. As a parallel, models for both informed consent (Appelbaum & Grisso, 1988) and waiver of legal rights (Bonnie, 1992) similarly emphasize the fundamental role of reasoning for legal decisions. Knowing and intelligent Miranda waivers rely on the capacity to rationally consider relevant information in reaching a decision.

Reasoning is the most complex and open-to-interpretation level of decisional competence. The Supreme Court in *Godinez v. Moran* (1993) emphasized the “reasoned choice” but did not elaborate on which specific abilities are required for legally competent decisions. Without such guidance, models of legal decision making generally rely on traditional, non-legal models of decision making. Despite their subtle differences, a common subset (see Table 2) of relevant decisional capacities emerges across models (Appelbaum & Grisso, 1988, 1995; Bonnie, 1992, 1993; Grisso, 1997; Hilgendorf & Irving, 1981). Models of legal decision making generally provide similar conceptualizations for the first four components, but differ on the fifth decisional

capacity. In reviewing different models, more attention is focused on this capacity specifically.

Table 2  
*Components of Rational Reasoning Abilities Common to Models of Legal Decision Making*

Reasoning Ability	Description of Capacity
1. Identify alternative options	Basic awareness that there is more than one available course of action from which to choose
2. Generate consequences of options	Ability to generate potential consequences of alternative options, including immediate and long-term risks and benefits
3. Evaluate desirability of consequences	Subjective appraisal of how pleasant or unpleasant potential consequences would be if they were to occur
4. Assess likelihood of consequences	Subjective appraisal of how likely potential consequences are to occur
5. Utilize rational reasoning to generate decision	Ability to weigh risks and benefits according to their personal value in order to arrive at a particular decision

*Note.* These components are found in the following models: Appelbaum and Grisso (1988, 1995); Bonnie (1992, 1993); Grisso (1997, 2003); Hilgendorf and Irving (1981); and Rogers and Shuman (2005).

Models of legal decision making differ conceptually depending on the type of variables considered most influential to rational reasoning. Traditional decisional competence models based on informed consent theory (Appelbaum & Grisso, 1988; Bonnie, 1992, 1993) have focused primarily on cognitive tasks underlying decision making. Other models provide broader perspectives that introduce the effects of situational factors (Hilgendorf & Irving, 1981) and impaired judgment of circumstances

(Scott et al., 1995). These primary differences are illustrated in the following discussion of three legal decision making models.

### Decisional Competence Model

Application of Bonnie's (1992, 1993) decisional competence model requires sufficient cognitive capacities to think rationally about alternatives and consequences of legal decisions. The necessary capacities have been operationalized in terms of both contextual and general abilities (Hoge et al., 1997). Contextual abilities are those specific to a particular legal decision (e.g., Miranda waiver). For each legal issue, contextual reasoning encompasses the following abilities: (a) requesting relevant information, (b) understanding the primary legal effects of alternatives, (c) understanding personal consequences of alternatives, and (d) comparing alternative choices. In contrast, general abilities involve basic cognitive decision making skills, such as the capacity to (a) consistently assign relative values to alternatives and (b) to think in probabilistic terms. While general abilities can provide an indirect measure of contextual reasoning, it is unclear whether rational abilities generalize across contexts.

Critics, such as Scott and colleagues (1995), argue decisional competence models provide narrow, incomplete conceptualizations of legal decisions. As noted, this model (Bonnie, 1992, 1993) focuses primarily on cognitive processes of decision making. While cognitive capacities are essential to rational decisions, Scott and colleagues' broader framework further examines how immature or impaired judgment may compromise decisional capacities in legal contexts.

## Judgment Model of Legal Decisions

Scott and colleagues (1995) introduced a judgment model by expanding traditional models to address how poor judgment abilities affect legal decisions. They discussed potential effects of three judgment-related abilities, including (a) risk perception, (b) temporal perspective, and (c) compliance with authority.

### *Risk Perception*

Defendants' risk perception is fundamental to their legal decision making processes under the judgment framework (Scott et al., 1995). Risk perception is construed by Woolard (2003) as three related capacities: (a) identifying potential negative consequences of alternative actions, (b) evaluating the likelihood of those consequences occurring, and (c) assessing the degree of unpleasantness for those consequences. Impaired perceptions of the likelihood and severity of potential consequences may lead to misinformed legal decisions. For example, consider a defendant who believes the likelihood of a negative consequence (e.g., "the police will beat me up") occurring is high for refusing to talk. Based on this reasoning, the defendant agrees to waive Miranda and provide a statement. From a judgment perspective, this Miranda waiver decision is not considered rational because the decision analysis was grounded in faulty perceptions of consequences. As a more stringent definition, good judgment requires more than a basic recognition of the risks associated with Miranda waiver decisions. According to Woolard (2003), defendants must generally weigh these risks of waiving their legal rights (e.g., self-incrimination) more heavily than perceived risks associated with exercising their legal rights (e.g., angering police).



Defendants' risk perception regarding Miranda waiver decisions constitutes an essential functional capacity required for rational reasoning. The Supreme Court in *Miranda* (1966) required Miranda warnings to inform custodial suspects about the risks of waiving silence. Therefore, any rational Miranda waiver decision must be informed by an understanding of certain risks associated with a decision to waive legal rights. Defendants must recognize the risk of self-incrimination, as interrogation involves gathering evidence against the accused. The Court in *Colorado v. Spring* (1987) reaffirmed this protection by ruling suspects must be "fully advised of this constitutional privilege, including the critical advice that whatever he chooses to say may be used as evidence against him" (p., 479). Defendants must also be aware of the risks of waiving legal counsel. The Supreme Court in *Iowa v. Tovar* (2004) held that valid waivers of legal counsel require awareness that a waiver is associated with the risk that a viable defense will be overlooked. Although weighing consequences appears critical to competent Miranda waiver decisions, no legal cases were found that explicitly required the capacity to weigh potential risks. More generally, it could be inferred from the "reasoned choice" described by the Supreme Court (see *Godinez v. Moran*, 1993).

Empirical research has rarely examined the effects of risk perception on important legal decisions. As an exception, Grisso, Steinberg, Woolard, and colleagues (2003) examined the three aspects of juveniles' risk perception: risk recognition, risk likelihood, and risk impact. Impaired risk perception occurred frequently for those less than 14 years of age. Compared to older adolescents and adults, younger adolescents (a) identified fewer risks associated with legal decisions, (b) perceived a lower likelihood of those risks occurring, and (c) anticipated less impact from risks. Grisso and

colleagues evaluated risk perception relative to developmental differences, but provided no other data on how well they evaluate risks in legal situations. The adequacy of defendants' risk perception deserves further research specifically examining how defendants weigh risks compared to benefits of waiving and exercising Miranda rights.

### *Temporal Perspective*

Temporal perspective is essential to rational legal decision making within the judgment framework (Scott et al., 1995). Temporal perspective refers to the capacity to identify, incorporate, and weigh the significance of potential long-term consequences associated with decision options (Woolard, 2003). Judgment models construe rational legal decisions as those that evidence adequate temporal perspective by weighing *future* negative consequences (e.g., self-incrimination) more heavily than *immediate* positive consequences (e.g., completing the interrogation). Sigurdsson and Gudjonsson (1994) recognized the effects of temporal discounting in suspects' decision making. For hundreds of cases, 60.0% of suspects confessed based on the faulty premise that they would be allowed to go home if they "cooperated" with police (i.e., an immediate solution).

Defendants lacking temporal perspective may exhibit poor judgment regarding the future consequences of their Miranda waiver decisions. Instead, decisions are driven by immediate advantages or disadvantages of available options. Even when long-term consequences are considered, they are often outweighed by immediate advantages (Rogers & Shuman, 2005). For example, some defendants may base their decision solely on being cooperative with police. As noted by Rogers and Shuman,

defendants cannot make an intelligent waiver of Miranda rights without weighing both the immediate and long-term consequences of their decision.

Two studies have examined aspects of temporal perspective in the context of legal decision making (Grisso, Steinberg, Woolard, et al., 2003; Woolard, 1998). For instance, Woolard examined male detainees' capacity to identify immediate and future consequences for three hypothetical legal decisions (e.g., whether to talk to police, whether to consult with an attorney, and whether to accept a plea bargain). Regardless of other factors (i.e., age or intelligence), both juveniles and adults identified a greater number of immediate than future consequences. A general conclusion from Woolard's findings is that immediate consequences may dominate the cost-benefit analysis for many individuals when making legal decisions. As noted, Miranda waiver decisions made without the consideration of long-term consequences cannot be considered intelligent (Rogers & Shuman, 2005).

Grisso, Steinberg, Woolard, and colleagues (2003) more recently evaluated the relationship of temporal perspective to age and intelligence for detained and community samples of juveniles and adults. They examined temporal perspective focusing on the same three hypothetical legal decisions used by Woolard (1998). In contrast to Woolard's earlier findings, they found individuals of higher intellectual ability identified a larger number of future consequences associated with legal decisions. With respect to age effects, Grisso and colleagues similarly found that adults did not exhibit significantly better temporal perspective than juveniles.

## *Compliance*

Compliance with authority is the third judgment-related variable that potentially impairs rational decision making (Scott et al., 1995). Originally focusing only on juveniles' legal decision making capacities, Scott and his colleagues' judgment model emphasized that juvenile offenders often make compliant decisions following the advice of others. Gudjonsson (2003) defines compliance as a "tendency to go along with propositions, requests, or instructions, for some instrumental gain" (p. 370).

Compliance is conceptualized as a personality trait (Gudjonsson, Sigurdsson, Brynjolfsdottir, & Hreinsdottir, 2002) characterized by two factors. According to Gudjonsson (1989, 2003), they are (a) eagerness to please and protect self-esteem in the presence of others and (b) avoidance of conflict and confrontation, especially in the presence of authority figures. Individuals who generally have difficulty coping with pressure from others may often act in a compliant manner, regardless of whether they agree or disagree with the particular request (Gudjonsson, 2003). If based on compliance alone, legal decisions may not be competently made due to poor judgment that does not reflect personal preferences. Research has examined the relationship of compliance to age, cognitive abilities, and psychological functioning.

Conceptually, judgment frameworks (Scott et al., 1995; Steinberg & Cauffman, 1996) emphasize the role of developmental immaturity on compliant behavior. Beyond maturity level, Gudjonsson (2003) discussed circumstances in which adults may also act compliantly. For example, he concluded that cognitively and psychologically impaired individuals may exhibit compliant behavior.

Defendants' difficulty coping with real or perceived pressure from authority figures may result in compliance with law enforcement's requests (Gudjonsson, 2003). Compliant individuals, therefore, may be more likely to accede to police pressures to waive Miranda rights, and subsequently provide incriminating evidence during interrogation. Moreover, they may succumb to requests by law enforcement and act against their best interests in order to achieve some perceived gain. Examples of perceived gains may include termination of the interrogation, release from custody, or avoidance of conflict (Gudjonsson). Additionally, defendants often act compliantly to "cooperate" or get help or information. With mentally disordered defendants, Harrison (2007) found a substantial minority (22.4%) of defendants identified "cooperation" as a good reason for waiving Miranda rights. In extreme cases, Gudjonsson cautioned that compliant defendants may falsely confess to a crime, despite their awareness that they are providing inaccurate information. Compliance may often be reflected in defendants' reasoning when deciding whether they should waive Miranda and consent to police questioning.

### Confession-Related Decision Models

Models focusing solely on personal capacities (e.g., decisional competence and judgment models) fail to fully illustrate the complex decision making process involved in defendants' legal decisions, such as the role of situational factors. According to Hilgendorf and Irving's (1981) seminal model of confessions, situational variables can profoundly alter defendants' appraisals of their circumstances. They may weigh alternatives and consequences differently depending on how they perceive their legal

situation. For example, social approval (e.g., defendants want to take responsibility for their actions) and disapproval (e.g., defendant being perceived as a criminal) may play a significant role in defendants' decision making processes.

Criminal defendants are more likely to provide a confession under certain situational circumstances. Building from Hilgendorf and Irving's (1981) model, Gudjonsson and Sigurdsson (1999) identified three categories hypothesized to increase the likelihood of a confession. These include external pressure (e.g., belief that non-cooperation will be punished), internal pressure (e.g., desire to provide justifications or explanations), and perception of proof (e.g., belief that a conviction is inevitable). Of these, perception of proof produced the strongest effect (Gudjonsson & Sigurdsson). It is expected that these situational variables found with confessions will generalize to Miranda waivers.

#### Clinical Conceptualizations and Research on Miranda Reasoning

Forensic experts, such as Grisso (2003) and Rogers and Shuman (2005) discuss reasoning specifically in the context of Miranda-related competencies. Essential capacities outlined for Miranda reasoning are similar to that included across decisional competence models (see Table 2). Grisso, for example, broadly described two functional abilities associated with Miranda reasoning. First, defendants must be able to identify consequences of alternative decisions. Second, they must decide whether to waive or exercise Miranda rights based on a rational reasoning process. Grisso construes reasoning as a defendant's capacity to identify and reason about the risks of waiver decisions. Likewise, Rogers and Shuman outline similar decisional capacities

for intelligent Miranda waivers, but also include the importance of case-specific factors on Miranda waiver decisions. Interestingly, Miranda reasoning has rarely been empirically evaluated, although evident among legal (*Godinez v. Moran*, 1993) and clinical (Grisso, 2003; Rogers & Shuman, 2005) conceptualizations of valid Miranda waivers.

Assessment of Miranda understanding and appreciation has progressed in recent decades to produce standardized published instruments for measuring these capacities (Grisso, 1998). In contrast, no tests of Miranda reasoning are published. The difficulty associated with defining and measuring reasoning capacities poses formidable challenges for test development. At present, only two studies address Miranda reasoning (Rogers, Harrison, Hazelwood, & Sewell, 2007; Rogers, Gillard, & Wooley, and Fiduccia, 2011); they focus on how cognitive, psychological, and situational variables affect the capacity for Miranda reasoning.

Using a sample of mentally disordered defendants, Rogers, Harrison, Hazelwood, and Sewell (2007) first examined Miranda reasoning. Their study evaluated (a) common reasons for exercising and waiving Miranda rights and (b) the relative importance of cognitive and psychological variables to impairments in Miranda reasoning abilities. Not surprisingly, substantial numbers of mentally disordered defendants lacked the basic ability to generate reasons for waiver decisions. More than one-fourth could not identify even one reason for exercising their right to silence. The nature of their responses often indicated impaired reasoning. For example, a significant percentage (36.4%) of defendants failed to identify “avoiding self-incrimination” as a benefit of asserting their right to silence. Defendants’ decisions to waive legal counsel

were based on inaccurate beliefs about the financial responsibility of legal counsel for indigent defendants. Furthermore, 22.4% were influenced by the faulty assumption that they could be punished for choosing to remain silent. These common reasoning deficiencies illustrate that psychological impairment plays a critical role in Miranda reasoning. Beyond investigating common reasons to waive or exercise rights, Rogers, Harrison, Hazelwood, and colleagues also evaluated predictors of Miranda reasoning. Verbal abilities and listening comprehension were the strongest predictors of impaired Miranda reasoning. Even with mentally disordered defendants, cognitive abilities overshadowed the level of psychological functioning (e.g., GAF).

Environmental stressors inherent during arrest and subsequent police questioning likely diminish Miranda reasoning abilities. Using a mock-crime paradigm, Rogers, Gillard, and Wooley (2011) recently examined the effects of simulated situational stressors on university students' capacity for Miranda reasoning. Participants in the mock crime condition exhibited significantly lower Miranda reasoning capacities compared to controls. Increased levels of anxiety were experienced by 82.1% of participants as a result of environmental stressors involved in committing the mock crime (i.e., stealing a watch from a locked case). As an overall conclusion, the simulated environmental stressors substantially increased anxiety levels, which resulted in decreased capacity for Miranda reasoning, despite knowledge of simulation versus realistic conditions. Because of ethical constraints, the stressors cannot approximate the actual stressors associated with being taken into custody. However, even with mild stressors, Miranda reasoning abilities were compromised. A rational inference is that



Miranda reasoning will likely diminish further under the far more stressful conditions of arrest and interrogation.

### Current Study

Miranda understanding, appreciation, and reasoning abilities are essential to courts' determinations of knowing and intelligent Miranda waivers. Despite the remarkable development of Miranda research in recent decades, studies have rarely addressed Miranda reasoning and waiver decisions. Examining the nature of defendants' decisional capacities constitutes a critical step in further developing theoretical and clinical models for competent Miranda waiver decisions. The current study is the first to examine systematically how decisional abilities affect defendants' personal waiver decisions. Different models of legal decisions are examined to determine their relevance to Miranda abilities. As previously summarized, capacities associated with three broad areas of Miranda-related functional abilities were examined: understanding, appreciation, and reasoning.

Theoretical models of reasoning and decision making (Bonnie, 1992; Hilgendorf & Irving, 1981; Scott et al., 1995) provide insightful explanations for criminal defendants' legal decisions; however, these models must be empirically tested to determine their applicability to Miranda waiver decisions. On this point, the current research aimed to answer two primary questions. First, what clinical variables are most important to Miranda understanding, appreciation, and reasoning? Second, do decisional competence and judgment models adequately conceptualize the elements of Miranda waiver decisions?

## Research Questions and Hypotheses

Defendants' understanding of Miranda-relevant information is the most basic capacity necessary for knowing and intelligent Miranda waivers. Dependent variables for the current study examined three essential capacities required for sufficient Miranda understanding: paraphrasing Miranda content (MSS-R; Rogers, 2005), Miranda vocabulary (MVS; Rogers, 2005), and Miranda misconceptions (MQ; Rogers, 2008).

Research Question 1: The first research question investigates the relative importance of cognitive and psychological impairments to Miranda warning understanding. Within the cognitive domain, independent variables included intelligence and basic reading and listening comprehension. For psychological impairment, GAS was examined as the sole independent variable.

Hypothesis 1: It was hypothesized that verbal intelligence (WASI VIQ) and basic comprehension skills (WIAT-II Reading and Listening) would best predict Miranda understanding abilities (MSS-R, MQ, MVS) followed by overall psychological impairment (GAS).

Research Question 2: Appreciation of Miranda rights constitutes the second component of competence to waive Miranda rights (Grisso, 2003). The second research question addresses the unique and combined effects of cognitive and psychological impairments on Miranda appreciation. Independent variables were cognitive abilities (i.e., IQ, comprehension skills) and overall psychological functioning. The dependent variable for the nature and function of Miranda rights was assessed using Function of Rights in Interrogation (FRI; Grisso, 1998).

Hypothesis 2: It was hypothesized that verbal intelligence (WASI VIQ) and basic comprehension skills (WIAT-II Reading and Listening) would best predict Miranda appreciation followed by overall psychological impairment (GAS).

Research Question 3: As previously discussed, Miranda reasoning constitutes the most complex category of functional abilities required for knowing and intelligent Miranda waiver decisions. The third research question, therefore, addresses pretrial defendants' capacities to make Miranda waiver decisions based on a rational decision process. Building from decision making (e.g., Bonnie, 1992, 1993; Hilgendorf & Irving, 1982) and judgment models (Scott et al., 1995), the current research evaluated Miranda reasoning and waiver decisions as measured by the Miranda Rights Scale (MRS; Rogers, 2005). Based on judgment models, risk perception and temporal perspective were expected to play a significant role in Miranda reasoning. For this reason, two additional dependent variables were examined: risk appraisal (Cognitive Appraisal of Risky Events (CARE); Fromme, Katz, & Rivet, 1997) and future orientation (Consideration of Future Consequences (CFC); Strathman, Glleicher, Boninger, & Edwards, 1994).

Hypothesis 3: It was hypothesized that verbal intelligence (WASI VIQ) and basic comprehension skills (WIAT-II Reading and Listening) would best predict Miranda reasoning (MRS) followed by overall psychological impairment (GAS).

Hypothesis 4: In addition to cognitive and psychological variables, it was hypothesized that risk perception and temporal perspective would incrementally predict Miranda reasoning.

## CHAPTER 2

### METHOD

#### Design

The current study used a correlational design (regression analysis) to test the primary hypotheses regarding the predictive effects of defendant characteristics on Miranda understanding, appreciation, and reasoning. Independent variables were defendant characteristics. Besides background, defendant characteristics included intelligence, reading and listening comprehension, psychological functioning, and general judgment abilities. Dependent variables were examined via performance on Miranda measures. Specific Miranda abilities evaluated consisted of understanding (MSS, MVS, and MQ), appreciation (FRI), and reasoning (MRS). A quasi-experimental approach was used to examine supplemental analyses.

#### Participants

The sample consisted of pretrial defendants who were detained at one of two data collection sites near Tulsa, Oklahoma: Cherokee County Jail and Okmulgee County Jail. With approval from the Oklahoma Indigent Defense System (OIDS), the sample was composed of pretrial defendants who were determined to be indigent, and therefore, assigned a court-appointed attorney.

#### Research and Administrative Approval

The current research study was jointly approved by the Oklahoma Indigent Defense System (OIDS) administration and the University of North Texas Institutional Review Board (see Appendix A).

## Materials

### *Demographic Information Form (DIF)*

The DIF (see Appendix B) inquires about basic defendant characteristics, including date of birth, gender, ethnicity, first language spoken, highest level of education attained, and marital status. Regarding socio-economic status, the DIF asks participants about their most recent occupation and past year's gross income. Items pertaining to arrest and prior experience with the criminal justice system include (a) date and time of arrest, (b) current legal charges, and (c) number of total arrests. Finally, the DIF inquires about a history of psychiatric hospitalizations.

### *Wechsler Abbreviated Scale of Intelligence (WASI)*

The WASI (Psychological Corporation, 1999) is a brief standardized measure of intelligence, similar in format to the Wechsler Adult Intelligence Scale-Third Edition (WAIS-III; Wechsler, 1997). The WASI is composed of four subscales: Vocabulary, Similarities, Block Design, and Matrix Reasoning. Calculations from these subtests produce three IQ scores: Verbal IQ, Performance IQ, and Full Scale IQ. Average split-half reliability coefficients for WASI subscales in an adult sample were excellent, ranging from .92 to .98. The WASI has good test-retest reliability with coefficients for the adult sample ranging from .79 to .90 for individual subtests, and from .87 to .92 for the IQ scales. Demonstrating concurrent validity, WASI Full Scale IQ scores are correlated highly (range of .84 to .92) with corresponding IQ scores derived from the WAIS-III (Wechsler, 1997). There currently exists no data regarding the correlation of WASI scores and WAIS-IV scores.

### *Wechsler Individual Achievement Test-Second Edition (WIAT-II)*

The WIAT-II (Wechsler, 2002) is a widely used, comprehensive assessment for measuring academic achievement. WIAT-II subtests measure a wide range of skills that are typically learned in a school setting. For the current study, two subtests were administered: Reading Comprehension and Listening Comprehension. Reading Comprehension tasks examine the ability to read passages and answer questions about the explicit content, as well as make inferences based on context cues. Listening Comprehension assess three listening components: receptive vocabulary, sentence comprehension, and expressive vocabulary. The WIAT-II conveniently provides age-based standard scores as well as the grade equivalent of an individual's current functioning. The WIAT-II is a reliable measure of academic achievement skills, with split-half reliability correlations ranging from .94 to .98 for the Reading Comprehension subtest, and from .83 to .92 for the Listening Comprehension subtest. Good test-retest reliability was also reported on adult samples for both Reading (.81) and Listening (.93) Comprehension subtests (The Psychological Corporation).

### *Schedule for Affective Disorders and Schizophrenia (SADS)*

The SADS (Spitzer & Endcott, 1978) was administered to assess for current psychological symptoms and overall level of impairment. It is a semi-structured diagnostic interview that evaluates Axis I symptoms and overall level of psychological functioning. Most SADS items measure symptom severity on six gradations: 0 = *no information*; 1 = *not at all*; 2 = *slight, but not clinically significant*; 3 = *mild*; 4 = *moderate*; 5 = *severe*; and 6 = *extreme severity*. Scores of 3 and above are generally considered clinically significant. Its Global Assessment Scale (GAS) provides a rating for overall

impairment using a scale similar to DSM-IV's Global Assessment of Functioning (GAF). The SADS has excellent interrater reliability ( $r = .94$ ) for individual symptoms (Rapp, Parisi, & Walsh, 1988). For concurrent validity, the agreement across broad diagnostic categories (no diagnosis, mood, anxiety, and schizophrenic disorders) was excellent, with 89% agreement and a kappa of .81 (Farmer et al., 1993).

#### *Miranda Statements Scale-Revised (MSS-R)*

The MSS-R (Rogers, 2005) is a research scale designed to evaluate the understanding of representative Miranda warnings. Individuals are asked to paraphrase the five Miranda warning components and a Miranda waiver; their responses are rated according to whether they recall substantive content of the warning. MSS-R evaluates understanding of Miranda warnings at three levels of reading difficulty: easy ( $< 6^{\text{th}}$  grade), moderate (grade 8.0 – 9.9), and difficult ( $\geq 12^{\text{th}}$  grade). Item scoring is based on the presence or absence of Miranda warning content. Total scores are indexed as the proportion of content categories an individual answered correctly. In the current study, the MSS-R Miranda warning with a moderate reading level was used for data analyses concerning Miranda recall. The MSS-R has a high level of interrater reliability (mean  $r = .91$ ). For construct validity, a prototypical analysis was conducted by asking three Miranda experts to select representative Miranda warning versions at each reading level. They reached a high level of agreement (98.3%) for prototypical components after three iterations.

#### *Miranda Vocabulary Scale (MVS)*

The MVS (Rogers, 2006b) assess a defendant's contextual understanding of relevant terminology used in representative Miranda warnings. MVS item development

was based on nationally representative Miranda vocabulary words compiled through previous research (Rogers, Harrison, Shuman, et al., 2007). It includes 36 words used in Miranda warnings across United States jurisdictions and independently rated as essential to Miranda understanding by three Miranda experts. MVS items are scored on a five-point scale, with scores reflecting varying levels of the defendant's comprehension of vocabulary words in the context of Miranda warnings. Scoring criteria are outlined: 0 = *incorrect definition*; 1 = *correct definition, but not relevant to Miranda*; 2 = *correct use of the word in a sentence*; 3 = *partially correct Miranda-relevant definition*; and 4 = *correct Miranda-relevant definition*. Specific examples are provided for each MVS item to facilitate scoring. Rogers, Hazelwood, Sewell, Blackwood, Rogstad, and Harrison (2009) reported the MVS has excellent scale homogeneity ( $\alpha = .91$ ) and demonstrates good convergent and discriminant validity. They found very high interrater reliability for total MVS scores ( $r = .99$ ) and individual MVS items ( $M r = .94$ ; range from .78 to 1.00).

#### *Miranda Quiz (MQ)*

The MQ (Rogers, 2008) is a research instrument that assesses inaccurate beliefs about the five Miranda components, as well as two areas of common misconceptions about legal procedures. The MQ items were generated based on Rogers, Harrison, Shuman, and colleagues' (2007) findings regarding frequent errors and misassumptions about Miranda rights. The 25 true/false items are categorized into seven content areas: (a) Right to Silence, (b) Risks of Talking, (c) Right to Counsel, (d) Free Legal Services, (e) Continuing Legal Rights, (f) Misperceptions about Miranda, and (g) Police Practices During Pre-interrogation. In addition to a total score, this categorization allows for



calculation of scores for each of the specific content areas. Preliminary data have been collected on three independent samples in both forensic (i.e., jail detainees) and non-forensic (i.e., college) settings (see Rogers, Rogstad, Drogin, et al., 2010). As evidence of content validity, independent ratings among four Miranda experts resulted in a high level of agreement (ICC = .96) after two iterations (Rogers, Rogstad, Drogin, Blackwood, & Shuman, 2010).

#### *Function of Rights in Interrogation (FRI)*

The FRI (Grisso, 1998) assesses examinees' perceptions of the intended functions of legal procedures on three scales related to Miranda appreciation: (a) Nature of the Interrogation, (b) Right to Counsel, and (c) Right to Silence. Examinees are presented with four hypothetical vignettes and asked a total of 15 questions regarding their understanding of these legal areas. Each item is scored on a three point scale (0 = *inadequate response*; 1 = *questionable response*; 2 = *adequate response*), with total scores ranging from 0 to 30. The FRI is a standardized measure with normative data for samples of juvenile and adult offenders. It has good interrater reliability for item ( $r = .71 - 1.00$ ), subscale ( $r = .80 - .94$ ), and total ( $r = .94 - .96$ ) scores (Grisso).

#### *Miranda Rights Scale (MRS)*

The MRS (Rogers, 2006a) is an interview-based measure designed to assess defendants' ability to (a) generate reasons for waiving and exercising rights to silence and counsel, and (b) to identify consequences of Miranda waiver decisions. MRS items inquire about potential advantages and disadvantages of exercising and waiving the right to silence and legal counsel. The two MRS scales include (a) Waive and (b) Exercise (Rogers, 2005). Additionally it asks examinees to disclose their most

important reason for deciding to waive or assert their Miranda rights in their own legal cases. MRS items are scored on a four point scale (i.e., 0 to 3) based on the level of reasoning. A 0-point score indicates impaired reasoning (e.g., obviously psychotic reasons) or factual errors (e.g., inaccurate beliefs about legal rights). A 1-point score indicates vague, but not obviously impaired reasons (e.g., “tell my side of the story”). A 2-point score indicates reasoning based solely on immediate consequences (e.g., cooperate so as not to upset police). A 3-point response is reserved for reasoning that indicates a consideration of future consequences (e.g., protect against self-incrimination for a better legal outcome). The MRS has demonstrated excellent interrater reliability for individual items ( $M r = .94$ ; range of .86 – 1.00). It has very good reliability ( $M \text{ kappa} = .84$ ) and content validity (Rogers et al., 2007).

#### *Miranda Rights Scale-Consequences (MRS-C)*

As an addition to the original MRS, the MRS-C was designed specifically for the current research to evaluate an examinee’s perceived consequences in deciding to waive or exercise Miranda rights. The MRS-C scale inquires about the best and worst possible consequences of waiver decisions. Examinees are asked to generate four consequences: (a) best possible consequence of waiving, (b) worst possible consequence of waiving, (c) best possible consequence of exercising, and (d) worst possible consequence of exercising. For each consequence identified, examinees provide their subjective appraisal with respect to the valence (i.e., positive or negative), likelihood (5-point Likert scale), and importance (4-point Likert scale) of each consequence. Additional ratings made by the interviewer reflect the nature/content of the response and whether the response reflects immediate or future consequences.

### *Consideration of Future Consequences (CFC)*

The CFC (Strathman, Gleicher, Boninger, & Edwards, 1994), a 12-item Likert scale questionnaire, was administered as a general measure of future orientation. The CFC measures the extent that individuals consider and are influenced by the potential long-term outcomes of their current behaviors. Higher scores indicate individuals who are likely to consider the future consequences of everyday actions. Research has demonstrated the CFC has acceptable reliability and validity (Strathman et al., 1994). Used with a forensic sample (Cruise et al., 2008) the CFC demonstrated good internal consistency (alphas ranging from .80 to .86), test-retest reliability, and convergent validity.

### *Cognitive Appraisal of Risky Events (CARE)*

The CARE (Fromme, Katz, & Rivet, 1997) was used as a general assessment of defendants' outcome expectancies about the risks and benefits associated with involvement in risky activities. The CARE consists of four scales for rating expectations regarding 30 risky behaviors using a 7-point Likert scale. The first two scales (Risks and Benefits) inquire about expectations regarding risky activities. The Expected Involvement scale asks respondents to estimate the likelihood they will engage in each activity during the next six months, whereas the Past Frequency scale inquires about the frequency of engaging in each activity during the previous six months. As recommended by the authors, participants should be administered only one of these two scales. Because participants were detained at time of testing, the Past Frequency scale was administered with a modified time frame: six months *prior* to their arrest. Based on exploratory and confirmatory factor analyses, the CARE reflects six factors:

(a) Illicit Drug Use, (b) Aggressive and Illegal Behaviors, (c) Risky Sexual Activities, (d) Heavy Drinking, (e) High Risk Sports, and (f) Academic or Work Behaviors. Research (Fromme, Katz, & Rivet, 1997) has established adequate test-retest reliability ( $r = .51$  to  $.79$ ) and internal consistency (alphas ranged from  $.64$  to  $.90$ ). Acceptable criterion validity was established by correlating the measure to other measures of risk perception.

## Procedure

### *Selection Criteria and Recruitment for Participants*

Participants were selected using minimal inclusion criteria so as not to restrict the representativeness of the sample. Specifically, inmates were eligible if they were adults (at least 18 years of age), able to speak English fluently, and able to give written informed consent. Two exclusion criteria were implemented: (a) not presently receiving OIDS services (i.e., a condition of IRB approval) and (b) behavioral issues (i.e., uncooperative or a potential security-risk).

Jail staff posted a sign in inmate housing units with brief information requesting volunteers to participate in the current study. Interested detainees were asked to provide their names and the names of their court-appointed attorneys on the sign-up sheet. Inmates from the sign-up sheet were approached individually and given a more detailed description of the current study. A researcher also explained that as an external incentive, inmates who completed the study would be compensated \$15 that would be credited to their institutional funds account.

In accordance with the University of North Texas Institutional Review Board, informed written consent was obtained from inmates who agreed to participate in the

research study (see Appendix A). In addition, copies were provided for each participant. Copies of the approved informed consent form were maintained in a research file. As part of the consent process, basic research procedures were verbally explained to each participant as a method to minimize confusion. A researcher provided the opportunity for participants to ask any questions or seek clarification regarding their potential involvement in the study. After participants affirmed their understanding of the informed consent, they were asked to indicate such by signing the form. Participation was allowed only if an inmate was able to provide written informed consent as defined by these procedures.

#### *Administration of Research Measures*

All measures were administered by advanced doctoral students from the University of North Texas clinical psychology program. Researchers had extensive experience collecting data in a jail setting. They also had substantial training, including experience in observations and supervised administrations of most research measures. Prior to administering and scoring of any new measures, researchers completed training and demonstrated competence as determined by interrater comparisons.

Administration of research measures occurred in a private room to maintain participants' confidentiality. In addition to anonymity, privacy was emphasized to encourage open and forthright responding to sensitive and potentially undesirable personal information and opinions.

Data collection for each participant was completed in a single session of two to three hours. Participants were allowed to take breaks, when necessary, to prevent fatigue. A researcher collected demographic information followed by administration of

psychological (i.e., SADS), cognitive (i.e., WASI, WAIT-II Reading and Listening), judgment (i.e., CARE, CFC), and Miranda (MQ, MSS-R, MRS, MRS-C, MVS, FRI) measures. To control for ordering effects, participants were randomly selected to complete research measures in one of two alternative orders (see Appendix C). The order of test administration was designed to alternate types of research tasks, which included (a) semi-structured interviews, (b) standardized tests of cognitive abilities, (c) self-administered questionnaires, and (d) Miranda-relevant research measures. Additional measures from the ongoing programmatic research project were administered among measures used in the current project. A complete list of measures is provided in Appendix D.

Debriefing occurred after test administration. A researcher answered any questions the participant raised about the study. At completion of the data collection, a researcher supplied the name of the inmate and a \$15 money order to a staff member responsible for the inmates' institutional funds. As a condition of IRB approval, the \$15 incentive was not conditional on completion (i.e., they were provided the monetary incentive even if they dropped out of the study prior to completion of all research measures).

## CHAPTER 3

### RESULTS

The sample was comprised of 59 (73.8%) male and 21 (26.2%) female pretrial defendants who ranged in age from 18 to 60 years ( $M = 32.79$ ,  $SD = 10.57$ ). The self-reported ethnic composition was 45.0% Native American, 41.3% European American, 7.5% African American, 5.0% bi-racial, and 1.3% Hispanic American. Although two participants reported their native language as non-English, they spoke English fluently.

Pretrial defendants varied substantially in their past experiences with the criminal justice system. On average, they had more than 10 arrests (see Table 3). Interestingly, the numbers did not vary significantly depending on whether they waived or exercised their Miranda rights. All defendants reported at least two arrests, and a large majority (86.3%) had been arrested more than twice. Most defendants (46.3%) had five or fewer arrests, although a substantial minority (23.8%) had been arrested 10 to 20 times. At the highest end, 11.9% reported a legal history including 30 or more arrests.

Table 3  
*Background Characteristics of Pretrial Defendants*

Variable	Entire sample		Waived rights <sup>a</sup>		Exercised rights <sup>b</sup>		<i>F</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Number of arrests	11.73	14.61	10.91	18.02	12.27	11.99	.17	.69	-0.09
Level of education	11.53	1.98	11.66	2.16	11.44	1.87	.23	.63	0.12
Psychiatric hospitalizations	.65	3.45	.44	1.01	.79	4.38	.20	.66	-0.11

<sup>a</sup>Waived rights ( $n = 32$ ). <sup>b</sup>Exercised rights ( $n = 48$ ).

The current sample differed considerably in their levels of education, but generally had levels of education typical of jail populations in previous research (Rogers

et al., 2011; Rogers et al., 2010). They averaged close to a high school education, though a substantial proportion (41.3%) had not completed high school. A small percentage (8.8%) of defendants reported having more than two years of college. At the opposite end, almost twice as many defendants (16.3%) had not completed the ninth grade.

Defendants with previous psychiatric hospitalizations may have more difficulties with Miranda abilities than those who do not. The majority of pretrial defendants (86.3%) did not have a history of psychiatric hospitalization. Of those who reported a history of hospitalization, 45.5% reported a single previous hospitalization, while the remaining portion reported multiple hospitalizations ranging from 2 to 30 admissions. A follow-up analysis revealed that defendants without a history of psychiatric hospitalizations were no more likely to exercise Miranda rights compared to those with a history of one or more psychiatric hospitalizations  $\chi^2(1, N = 80) = 2.97, p = .09$ .

Cognitive abilities, such as intelligence and achievement abilities, are essential to Miranda-related competencies. These variables were examined for defendants who waived Miranda rights as compared to those who asserted them (see Table 4). Interestingly, no significant differences emerged between the two groups. Overall, the average verbal IQ ( $M = 85.00$ ) represents the low boundary of normal functioning. In stark contrast, performance IQ ( $M = 94.21$ ) is solidly in the average range. This difference is large ( $d = 0.74$ ) and significant  $F(1, 79) = 40.28, p < .001$ . In fact, more than one-third (35.0%) had performance IQ scores that were 15 or more points higher than their verbal IQ scores.



Table 4  
*Intellectual Abilities and Basic Comprehension Skills for Pretrial Defendants who Waived or Exercised Miranda Rights*

Variable	Entire sample		Waived rights <sup>a</sup>		Exercised rights <sup>b</sup>		<i>F</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Verbal IQ	85.00	11.06	83.97	11.92	85.69	10.52	.46	.50	-0.15
Performance IQ	94.21	13.83	91.28	14.19	96.17	13.38	2.44	.12	-0.35
Full scale IQ	88.36	11.76	86.34	11.90	89.71	11.60	1.58	.21	-0.29
Reading comprehension <sup>c</sup>	72.54	16.51	75.03	18.75	70.85	14.76	1.23	.27	0.25
Reading grade <sup>d</sup>	7.25	2.96	7.67	3.37	6.69	2.64	1.02	.30	0.32
Listening comprehension <sup>c</sup>	84.62	15.74	85.88	14.54	83.77	16.61	.34	.56	.014
Listening grade <sup>d</sup>	8.61	2.94	8.78	2.92	8.49	2.98	.18	.67	.010

<sup>a</sup>Waived rights (*n* = 32). <sup>b</sup>Exercised rights (*n* = 48). <sup>c</sup>WIAT-II age-based standard scores. <sup>d</sup>WIAT-II grade equivalent.

Defendants' generally exhibited significantly impaired reading and listening comprehension. On average, listening and reading comprehension levels were in the Low Average and Borderline ranges of functioning respectively. As outlined below (see Table 5), a large majority of defendants had listening (60.0%) and reading (80.0%) skills lower than ninth grade. Moreover, a substantial minority exhibited comprehension levels below sixth grade (listening = 22.5%; reading = 35.0%). A notable disparity was observed regarding defendants' reading and listening skills. Specifically, they exhibited considerably more advanced listening skills compared to reading skills  $F(1, 79) = 68.83, p < .001, d = 0.74$ .

Reading and listening comprehension lagged far behind defendants' attained levels of education. Their tested listening comprehension levels were, on average, nearly three grades ( $M = 2.92, SD = 2.73$ ) below their reported education  $F(1, 79) = 90.74, p < .001, d = 1.16$ . For reading comprehension, an even greater disparity was

evident, with defendants' reading levels lagging more than four grades ( $M = 4.28$ ,  $SD = 2.61$ ) behind their attained levels of education  $F(1, 79) = 213.17$ ,  $p < .001$ ,  $d = 1.69$ .

Table 5  
*Pretrial Defendants' Levels of Reading and Listening Comprehension as Measured by WIAT-II*

Grade Equivalent <sup>a</sup>	Reading Comprehension			Listening Comprehension		
	n	% <sup>b</sup>	Cumulative %	n	%	Cumulative %
< 6 <sup>th</sup>	28	35.0	35.0	18	22.5	22.5
6 <sup>th</sup> – 8.9	36	45.0	80.0	30	37.5	60.0
9 <sup>th</sup> – 12 <sup>th</sup>	7	8.8	88.8	20	25.0	85.0
> 12 <sup>th</sup>	9	11.3	100.0	12	15.0	100.0

<sup>a</sup>WIAT-II grade equivalent. <sup>b</sup>Percentages do not always add up to 100% due to rounding.

The majority of defendants (58.7%) evidenced minimal to mild impairment with an overall GAS average of 71.43 ( $SD = 9.00$ ). In contrast, close to one-third (30.0%) manifested moderate impairment and a small percentage (11.3%) presented with serious symptoms. Regarding the nature of symptoms reported at the time of testing, very few ( $n = 6$ ) endorsed psychotic symptoms ( $M$  SADS Psychosis = 4.50,  $SD = 1.76$ ). In contrast, approximately one-half (52.5%) of defendants described depressive symptoms ( $M$  SADS Depression = 8.60,  $SD = 6.10$ ). Likewise, 32 (40.0%) defendants reported they were experiencing symptoms of anxiety at the time of testing ( $M$  SADS Anxiety = 5.25,  $SD = 3.65$ ).

## Evaluation of Miranda-Related Capacities: Understanding

The most basic capacities required for knowing and intelligent Miranda waivers involve knowledge of key words and phrases used in Miranda warnings. A primary focus of the first research question was to examine clinical correlates of defendants' Miranda abilities in three areas related to the first level of decisional competence (i.e., understanding): Miranda recall (MSS-R), Miranda vocabulary (MVS), and Miranda knowledge (MQ). The pretrial defendants' capacities as assessed by these three Miranda measures are outlined in the following paragraphs.

### *Miranda Warning Recall*

Miranda recall was examined by having defendants paraphrase substantive content of MSS-R Miranda warnings immediately following their advisements. As illustrated in Table 6, defendants generally had limited recall of the Miranda components; even for the easiest version, their recall was less than two-thirds of the content. Nearly one-fourth (24.1%) failed to recall even one-half of the Miranda content. As expected, the percentage with failed recall increased markedly for moderate and difficult Miranda warning versions.

Table 6  
*Descriptive Data and Percentage of Defendants with Poor and Good Miranda Recall for each Level of MSS-R*

MSS		Defendants' Recall				
Version	Reading Level	<i>M</i>	<i>SD</i>	Range	% Poor	% Good
Easy	< 6	62.13	2.13	17-92	24.1	39.2
Moderate	8.0 – 9.9	50.05	1.79	7-93	45.6	15.2
Difficult	≥ 12	44.19	1.64	0-97	57.0	3.8

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*Note.* % Poor = participants with poor comprehension (i.e., < 50% correct concepts on the MSS); % Good = participants with good comprehension (i.e., ≥ 70% correct concepts on the MSS).

### *Miranda Vocabulary*

The meaning of words used in communicating Miranda rights provides the foundation for the accurate understanding of Constitutional protections. For the current study, pretrial defendants were tested on their capacity to define 36 words deemed essential to Miranda rights understanding by psycholegal experts (see Table 7). Initial analyses (see Appendix E) revealed no significant differences between defendants who waived compared to exercised Miranda in their own cases; thus the remaining analyses focused on the entire sample.

Miranda vocabulary understanding varied remarkably in terms of item difficulty with seven words failed by the majority of defendants. Of these seven difficult items, the words “right” and “incriminate” are common to Miranda warnings and were judged by experts as very high with respect to importance to Miranda rights comprehension. At the opposite end, nine comparatively easy words were failed by less than 20%. All of these words were rated as highly prototypical. The list of comparatively easy Miranda vocabulary words was devoid of any difficult vocabulary, with only one word above sixth grade.

Table 7  
*Descriptive Data and Percentage of Defendants who Failed Miranda Vocabulary Items  
 Displayed by Decreasing Order of Item Difficulty*

Word	<i>M</i>	<i>SD</i>	% Failed <sup>a</sup>	Grade <sup>b</sup>	Importance <sup>c</sup>
Coerced	0.43	1.16	88.6	16	3.67
Coercion	0.47	1.25	87.3	13	3.67
Demand	0.84	1.35	72.7	6	3.33
Proceedings	1.23	1.47	69.6	6	3.33
Incriminate	1.28	1.72	63.3	8	4.67
Right <sup>d</sup>	1.59	1.58	60.8	8	5.00
Prosecution	1.42	1.62	55.7	8	3.33
Terminate	2.18	1.58	48.1	12	4.33
Threat	1.90	1.61	46.8	6	3.33
Waiver	2.08	1.56	38.0	16	5.00
Represent <sup>d</sup>	2.00	1.49	38.0	6	4.67
Willingly	2.48	1.80	36.7	4	4.67
Knowingly	2.01	1.45	36.7	6	4.00
Advice	2.13	1.46	35.4	4	4.67
Afford <sup>d</sup>	2.62	1.84	34.2	4	4.67
Offense	2.65	1.81	32.9	10	3.33
<hr/>					
Indigent	2.73	1.87	31.6	16	3.67
Advise	2.53	1.62	30.4	4	4.33

Counsel	2.76	1.67	30.4	12	5.00
Statement <sup>d</sup>	2.49	1.11	27.8	4	5.00
Entitled	2.68	1.60	26.6	8	4.33
Voluntarily	2.97	1.70	24.1	6	5.00
Waive	2.58	1.48	24.1	13	5.00
Appoint <sup>d</sup>	2.52	1.34	22.8	6	4.33
Intelligently	2.42	1.36	22.8	6	3.67
Questioning <sup>d</sup>	2.82	1.55	21.5	13	5.00
Suspect	2.86	1.38	20.3	4	3.67
Consent	3.00	1.48	19.0	6	5.00
Consult	2.63	1.29	19.0	6	4.67
Crime	3.05	1.44	17.7	4	4.00
Evidence	2.67	1.25	16.5	6	4.67
Interrogation	3.43	1.34	12.7	8	4.67
Accused	2.86	1.00	12.7	4	4.33
Lawyer <sup>d</sup>	3.16	1.23	11.4	4	5.00
Attorney <sup>d</sup>	3.32	1.20	10.0	6	5.00
Silent <sup>d</sup>	3.75	0.65	2.5	4	5.00

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<sup>a</sup>Percentage of defendants scoring < 3 (i.e., less than *partial understanding*).

<sup>b</sup>Grade level difficulty as identified by Dale & O'Rourke (1981) and cited in Rogers et al., 2010.

<sup>c</sup>Expert's rating of importance to Miranda understanding (Rogers et al., 2010).

<sup>d</sup>High frequency word found in 200 or more jurisdictions (Rogers et al., 2010).

Further analyses were conducted to determine whether item difficulty (i.e., grade level) was related to the proportion of defendants who failed the item. Initial analyses revealed a modest, yet significant association between the grade level of the word and the percentage of defendants failing the item ( $r = .39, p = .02$ ). As a follow-up analysis, Miranda vocabulary terms were divided into three groups based on item failure rate (i.e., percentage of defendants who failed the item): (a) < 25% failed ( $M$  grade = 6.40); (b) 25% to 50% failed ( $M$  grade = 8.00); and (c) > 50% failed ( $M$  grade level = 9.29). A one-way ANOVA was conducted for these three groups using the grade level for the words as the dependent variable. Despite moderate to large effects observed ( $d$ s 0.43 to 1.10), those differences did not rise to a significant level  $F(2, 35) = 1.57, p = .22$ , 95% CI [6.30-8.87].

### *Miranda Knowledge*

Miranda misconceptions can impair understanding regardless of defendants' Miranda vocabulary or recall. As such, a third Miranda-related ability required for the first level of decisional competence is basic Miranda knowledge. To assess whether defendants held inaccurate Miranda knowledge that could potentially interfere with adequate understanding of legal protections, the Miranda Quiz (MQ; Rogers, Rogstad, Gillard, et al., 2010) was administered. Salient issues related to Miranda comprehension and subsequent waivers were assessed for each of the five Miranda components, as well as for two additional domains related to (a) general misconceptions about the application of Miranda rights and (b) deceptive police practices. Notably, initial analyses (see Appendix F) revealed no significant differences between those defendants who waived compared to asserted Miranda in their own

cases ( $ps$  ranged from .43 to .96); therefore, the subsequent analyses focused on the entire sample.

Table 8  
*Pretrial Defendants' Miranda Knowledge on MQ Scales and Total Score*

Miranda Domain	<i>M</i> % Correct	<i>SD</i>	Range
Right to Silence	75.8	26.51	0-100
Risks of Talking	79.1	20.06	25-100
Right to Counsel	72.0	18.72	20-100
Free Legal Services	79.6	23.42	0-100
Continuing Legal Rights	68.8	28.24	0-100
Police Practices	47.1	33.41	0-100
Miranda Misconceptions	55.9	22.23	0-100
Miranda Quiz Total	68.6	9.73	44-92

As found by Rogers and colleagues (2010), the current defendants evidenced substantial Miranda misconceptions in their responses to MQ items overall (see Table 8). MQ total scores ( $M$  correct = 68.6%) indicate that defendants averaged eight misguided beliefs about Miranda. Defendants were particularly misinformed about the legality of deceptive police tactics for interrogation ( $M = 47.1\%$ ) and the applicability of Miranda rights ( $M = 55.9\%$ ). Many falsely believed police are legally prohibited from deception regarding fictitious crimes (58.8%) or eyewitness identification (60.0%) during interrogative questioning. Moreover, almost 20% (19.8%) failed all three items related to police practices. Regarding the application of Miranda rights, a substantial majority (67.5%-75.0%) held inaccurate knowledge about the circumstances in which Miranda



applies (see Table 9). Even more troubling, more than one-fourth (26.3%) of defendants believed there is no reason to pay attention when their rights are read because all Miranda warnings are the same. It is not surprising that defendants are unknowledgeable in these domains because they are not specifically addressed in Miranda's five primary components. However, such unfounded assumptions may often play a determining role in Miranda waiver decisions.

Table 9

*Percentage of Defendants Failing Each MQ Item*

% Failed	Content Area	Abbreviated Item Content
75.0	Miranda Misconceptions	Miranda applies when held by other authorities (e.g., store security).
68.8	Right to Counsel	"I want a lawyer." = "I might want a lawyer."
67.5	Miranda Misconceptions	Application of Miranda outside custodial settings.
60.0	Police practices	Legality of police falsely claiming an eyewitness identifies you.
58.8	Police practices	Legality of police accusing you of fictitious crimes.
50.0	Continuing legal rights	"Withdraw your waiver" means you can reassert rights.
47.5	Risks of talking	Use of statements made "off the record" during the interrogation.
38.8	Police practices	You can retract your statement without consequences if police lie.
35.0	Free legal services	"Indigent defendants" = defendants who have been indicted.
35.0	Right to Silence	Your silence can be used as evidence against you.
31.3	Right to Silence	The "right to remain silent" = your silence cannot be incriminating.
26.3	Right to Counsel	A lawyer can reduce the likelihood of coercion.
26.3	Miranda Misconceptions	Miranda warnings are similar, so no need to listen when Mirandized.
23.8	Continuing legal rights	Giving up the right to silence is permanent.
20.0	Risks of talking	You must sign a waiver before statements can be used against you.
18.8	Continuing legal rights	The right to a lawyer does not expire, even if a confession is made.
16.3	Right to Counsel	If you assert right to legal counsel, police questioning may continue.
16.3	Right to Counsel	Opportunity to talk privately with attorney before interrogation.
15.0	Free legal services	Your family is financially responsible for a court-appointed attorney.
8.8	Risks of talking	If you lie to the police, you can retract it without hurting your case.
7.5	Right to Counsel	If you ask for a lawyer, the police should stop questioning you.
6.3	Free legal services	Miranda rights are only relevant to guilty suspects.
6.3	Miranda Misconceptions	You must have money to ask for an attorney.
6.3	Risks of talking	If you talk, your statements will be against you.
5.0	Right to Silence	Remaining silent results in additional charges against you.

Any single misconception may be highly influential, and potentially detrimental, to

defendants' Miranda waiver decisions. For this reason, failure rates for individual MQ

items were examined to better highlight particularly problematic Miranda misconceptions (see Table 9). Notably, 11 (44.0%) of the 25 MQ items were failed by more than one-third of defendants. In addition to the problematic items noted above, defendants frequently failed items containing legalese, such as “withdraw your waiver” for reassertion of rights or “indigent defendants” when referring to free legal services. As perhaps the most consequential misconception, more than 30% believed their silence could be used as incriminating evidence.

### *Predictors of Miranda Understanding Abilities*

The first research question specifically investigated the relative importance of cognitive and psychological impairments to Miranda warning understanding. Within the cognitive domain, independent variables included intelligence and basic reading and listening comprehension. For psychological impairment, GAS was examined. Hypothesis 1 examined whether verbal intelligence (WASI VIQ) and basic comprehension skills (WIAT-II Reading and Listening) best predicted Miranda understanding abilities (MSS-R, MQ, MVS) followed by overall psychological impairment (GAS).

Table 10

#### *Relationships between Miranda Understanding Ability and Cognitive and Psychological Variables*

	Miranda Recall (MSS)	Miranda Vocabulary (MVS)	Miranda Knowledge (MQ)
Verbal IQ	.34**	.74**	.46**
Reading	.25*	.60**	.49**
Listening	.35**	.57**	.45**
GAS	.06	-.11	-.11

\*Significant at  $p < .05$ , \*\*Significant at  $p < .01$ .

Dominance analysis (Budescu, 1993; Azen & Budescu, 2003) served as the primary analyses for the first three research questions. Dominance analysis is a form of hierarchical multiple regression used to exhaustively evaluate the unique contribution of

each variable to the criterion. As a major advantage, dominance analysis allows for the determination of shared and unique variance of predictor variables. To begin, the relationships of independent variables and Miranda understanding abilities were examined (see Table 10). Variables with a significant correlational relationship to performance on measures of Miranda understanding were then included in the dominance analysis regression equations. Interestingly, GAS was not significantly related to defendants' performance on any of the Miranda-related abilities. As such, it was only examined as a predictor in the zero- and last-order equations and produced non-significant results (see Table 11, 12, and 13 notes). The dominance analysis for Miranda understanding variables (MSS-R, MVS, and MQ) are summarized below in Tables 11, 12, and 13.

Table 11

*Examination of Factors Affecting Miranda Recall (MSS) Using Dominance Analysis*

Order of Entry	First Variable Entered <sup>a</sup>		First Two Variables Entered <sup>b</sup>			All Variables Entered <sup>c</sup>		
	$R^2$	$p$	$R^2$	$\Delta R^2$	$p_{\Delta R^2}$	$R^2$	$\Delta R^2$	$p_{\Delta R^2}$
Verbal IQ, Reading Comprehension, Listening Comprehension	.12	.002	.12	.001	.82	.15	.03	.12
Verbal IQ, Listening Comprehension, Reading Comprehension			.14	.03	.13	.15	.003	.65
Reading Comprehension, Listening Comprehension, Verbal IQ	.06	.03	.12	.06	.03	.15	.02	.15
Reading Comprehension, Verbal IQ, Listening Comprehension			.12	.05	.04	.15	.03	.12
Listening Comprehension, Reading Comprehension, Verbal IQ	.12	.002	.12	.001	.85	.15	.02	.15
Listening Comprehension, Verbal IQ, Reading Comprehension			.14	.02	.17	.15	.003	.65

Note. Verbal IQ = WASI VIQ scores; Reading Comprehension = WIAT-II Reading Comprehension age-based standard scores; Listening Comprehension = WIAT-II Listening Comprehension age-based standard scores; GAS as zero-order ( $R^2 = .06$ ,  $p = .59$ ) and last-order ( $\Delta R^2 = .001$ ,  $p_{\Delta R^2} = .77$ ) predictor. <sup>a</sup>Zero-order. <sup>b</sup>First-order. <sup>c</sup>Second-order.

Overall, the three-variable model significantly predicted defendants' ability to accurately recall Miranda warnings at a moderate level of reading difficulty. When considered alone (zero-order), each of the three variables significantly predicted

Miranda recall (see Table 11). Listening comprehension ( $R^2 = .12$ ) and Verbal intelligence ( $R^2 = .16$ ) accounted for the largest percentages of variance when entered first into the dominance analysis. When either of these variables was entered first, no other variable accounts for any significant additional variance. Only when reading comprehension is entered first with its very modest percentage of the variance ( $R^2 = .06$ ), do listening comprehension ( $\Delta R^2 = .06$ ) and verbal intelligence ( $\Delta R^2 = .05$ ) contribute significantly to the variance.

Table 12  
*Examination of Factors Affecting Miranda Vocabulary (MVS) Using Dominance Analysis*

Order of Entry	First Variable Entered <sup>a</sup>		First Two Variables Entered <sup>b</sup>			All Variables Entered <sup>c</sup>		
	$R^2$	$p$	$R^2$	$\Delta R^2$	$p_{\Delta R^2}$	$R^2$	$\Delta R^2$	$p_{\Delta R^2}$
Verbal IQ, Reading Comprehension, Listening Comprehension	.54	.000	.56	.02	.06	.56	.004	.43
Verbal IQ, Listening Comprehension, Reading Comprehension			.55	.01	.15	.56	.01	.20
Reading Comprehension, Listening Comprehension, Verbal IQ	.35	.000	.41	.05	.02	.56	.15	.000
Reading Comprehension, Verbal IQ, Listening Comprehension			.56	.205	.000	.56	.004	.43
Listening Comprehension, Reading Comprehension, Verbal IQ	.32	.000	.41	.08	.001	.56	.15	.000
Listening Comprehension, Verbal IQ, Reading Comprehension			.55	.23	.000	.56	.01	.26

Note. Verbal IQ = WASI VIQ scores; Reading Comprehension = WIAT-II Reading Comprehension age-based standard scores; Listening Comprehension = WIAT-II Listening Comprehension age-based standard scores; GAS as zero-order ( $R^2 = .11$ ,  $p = .34$ ) and last-order ( $\Delta R^2 = .02$ ,  $p_{\Delta R^2} = .11$ ) predictor.  
<sup>a</sup>Zero-order. <sup>b</sup>First-order. <sup>c</sup>Second-order.

The pretrial defendants' comprehension of Miranda vocabulary was significantly predicted by their cognitive abilities (see Table 12). Together, the three variables produced a significant model accounting for a large proportion of variance ( $R^2 = .56$ ). As hypothesized, Verbal IQ emerged as the strongest predictor of Miranda vocabulary followed by reading and listening comprehension. Even when both reading and

listening comprehension are entered first, verbal IQ contributes unique and substantial variance ( $\Delta R^2 = .15$ ). When entered first, reading and listening comprehension accounted for similar percentages of the variance and were both augmented by the inclusion of the other.

Verbal intelligence and comprehension are only modest predictors of Miranda misconceptions (see Table 13). Even when combined, they accounted for comparatively small percentages of the variance ( $\Delta R^2 = .02$  to  $.07$ ). At the second-order, although sometimes significant, these variables contributed very little incremental variance.

Table 13  
*Examination of Factors Affecting Miranda Knowledge (MQ) Using Dominance Analysis*

Order of Entry	First Variable Entered <sup>a</sup>		First Two Variables Entered <sup>b</sup>			All Variables Entered <sup>c</sup>		
	$R^2$	$p$	$R^2$	$\Delta R^2$	$p_{\Delta R^2}$	$R^2$	$\Delta R^2$	$p_{\Delta R^2}$
Verbal IQ, Reading Comprehension, Listening Comprehension	.21	.000	.27	.06	.01	.28	.01	.32
Verbal IQ, Listening Comprehension, Reading Comprehension			.25	.04	.06	.28	.03	.07
Reading Comprehension, Listening Comprehension, Verbal IQ	.24	.000	.27	.02	.12	.28	.02	.21
Reading Comprehension, Verbal IQ, Listening Comprehension			.27	.03	.09	.28	.01	.32
Listening Comprehension, Reading Comprehension, Verbal IQ	.20	.000	.27	.07	.01	.28	.02	.21
Listening Comprehension, Verbal IQ, Reading Comprehension			.25	.05	.03	.28	.03	.07

Note. Verbal IQ = WASI VIQ scores; Reading Comprehension = WIAT-II Reading Comprehension age-based standard scores; Listening Comprehension = WIAT-II Listening Comprehension age-based standard scores; GAS as zero-order ( $R^2 = .11$ ,  $p = .33$ ) and last-order ( $\Delta R^2 = .02$ ,  $p_{\Delta R^2} = .17$ ) predictor.  
<sup>a</sup>Zero-order. <sup>b</sup>First-order. <sup>c</sup>Second-order.

### Evaluation of Miranda-Related Competencies: Appreciation

The second research question addresses the unique and combined effects of cognitive and psychological variables on Miranda appreciation, the second component

of competence to waive Miranda rights (Grisso, 2003). Independent variables were cognitive abilities (i.e., Verbal IQ and comprehension skills) and overall psychological functioning. For dependent variables, FRI (Grisso, 1998) total scores and subscales addressed the nature and function of Miranda rights.

Table 14  
*Descriptive Data and Percentage of Defendants with Impaired Miranda Rights  
 Appreciation on FRI Scales for Different Waiver Decisions*

FRI Scale	Waived Miranda			Exercised Miranda			<i>F</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	%	<i>M</i>	<i>SD</i>	%		
	Impaired <sup>a</sup>			Impaired <sup>a</sup>				
Nature of interrogation	9.25	1.14	31.3	9.38	1.12	22.9	.24	-0.12
Right to silence	7.22	1.86	75.0	7.10	2.37	70.8	.05	0.06
Right to counsel	9.56	.72	9.4	9.29	.94	12.5	1.90	0.32
FRI total score	26.03	2.33	--	25.77	3.12	--	.16	0.09

<sup>a</sup>% Impaired = defendants who exhibited inadequate appreciation for at least one concept on the subscale (i.e.,  $\geq 1$  item received a score of zero).

For FRI total scores, defendants in the current study (see Table 14) performed similar to Grisso's (1998) normative sample of adult offenders ( $M = 26.31$ ;  $SD = 3.26$ ). The same trend occurred for each subscale when compared to Grisso's earlier data as follows: Nature of Interrogation (NI) ( $M = 9.60$ ;  $SD = 1.04$ ), Right to Silence (RS) ( $M = 7.48$ ,  $SD = 2.07$ ), and Right to Counsel (RC) ( $M = 9.25$ ;  $SD = 1.31$ ). Overall, 47.5% exhibited inadequate appreciation for at least two FRI concepts and a substantial minority (21.3%) failed three or more concepts related to Miranda appreciation. A series of Chi square analyses and ANOVAs revealed no significant differences ( $ps$  ranged from .31 to .73) in mean FRI scores or proportion of defendants with impaired

Miranda appreciation for those who waived compared to exercised Miranda rights in their own legal cases.

Defendants, whether they waived or asserted their rights, demonstrated very similar patterns of impaired responses (see Table 14). A marked disparity was observed between the rights to counsel and silence. Most defendants exhibited a good understanding of their right to counsel. In stark contrast, nearly three-fourths failed to appreciate their right to silence. As in Grisso's (1998) normative sample, defendants most commonly failed to appreciate their silence cannot be revoked by a judge, with 55.0% who exhibited impairment related to this concept. A significant, yet much smaller percentage failed to grasp critical concepts necessary for understanding the function of their Constitutional protections against self-incrimination. Specifically, 17.5% could not appreciate that a fundamental consequence of waiving silence is that their statements could be used in their prosecution. Similar percentages did not understand that invoking silence cannot be penalized and that police must stop questioning when Miranda is asserted (20.0% and 17.5% respectively).

#### *Predictors of Miranda Appreciation*

Hypothesis 2 predicted that verbal intelligence (WASI VIQ) and basic comprehension skills (WIAT-II Reading and Listening) would best predict Miranda appreciation followed by overall psychological impairment (GAS). Defendants' FRI total scores were modestly correlated with verbal abilities ( $r = .28, p = .01$ ), reading comprehension ( $r = .24, p = .03$ ), and listening comprehension ( $r = .21, p = .06$ ). Although non-significant, an unexpected negative correlation emerged between defendants' FRI performance and their GAS scores ( $r = -.10, p = .37$ ). Because of the

non-significance, GAS scores were only included in zero- and last-order equations and produced non-significant results (see Table 15 notes).

Table 15  
*Examination of Factors Affecting Miranda Appreciation (FRI Total Scores) Using Dominance Analysis*

Order of Entry	First Variable Entered <sup>a</sup>		First Two Variables Entered <sup>b</sup>			All Variables Entered <sup>c</sup>		
	$R^2$	$p$	$R^2$	$\Delta R^2$	$p_{\Delta R^2}$	$R^2$	$\Delta R^2$	$p_{\Delta R^2}$
Verbal IQ, Reading Comprehension, Listening Comprehension	.08	.01	.09	.005	.53	.09	.000	.95
Verbal IQ, Listening Comprehension, Reading Comprehension			.08	.001	.75	.09	.004	.59
Reading Comprehension, Listening Comprehension, Verbal IQ	.06	.03	.06	.004	.57	.09	.02	.19
Reading Comprehension, Verbal IQ, Listening Comprehension			.09	.03	.15	.09	.03	.95
Listening Comprehension, Reading Comprehension, Verbal IQ	.05	.06	.06	.02	.23	.09	.02	.19
Listening Comprehension, Verbal IQ, Reading Comprehension			.08	.04	.08	.09	.004	.59

Note. Verbal IQ = WASI VIQ scores; Reading Comprehension = WIAT-II Reading Comprehension age-based standard scores; Listening Comprehension = WIAT-II Listening Comprehension age-based standard scores; GAS as zero-order ( $R^2 = .10$ ,  $p = .37$ ) and last-order ( $\Delta R^2 = .01$ ,  $p_{\Delta R^2} = .35$ ) predictor.  
<sup>a</sup>Zero-order. <sup>b</sup>First-order. <sup>c</sup>Second-order.

For Miranda rights appreciation (see Table 15), Verbal IQ and reading skills, but not listening skills, were significant predictors of defendants' FRI scores when considered in isolation, yet each of the variables accounted for only a small proportion of variance (5.0-8.0%). Verbal IQ emerged as the strongest correlate of FRI scores at the zero-order, accounting for 8.0% of variance. Alone, it accounted for nearly the same percentage as other variables in combination.

#### Evaluation of Miranda-Related Competencies: Reasoning

As previously discussed, Miranda reasoning constitutes the most complex category of functional abilities required for knowing and intelligent Miranda waiver decisions. The third research question addresses pretrial defendants' capacities to make Miranda waiver decisions based on a rational decision process. Building from



decision making (e.g., Bonnie, 1992, 1993; Hilgendorf & Irving, 1981) and judgment models (Scott et al., 1995), the current research evaluated reasoning about Miranda waiver decisions as measured by the MRS-R (Rogers, 2005). Based on judgment models, risk perception and temporal perspective were expected to play a significant role in Miranda reasoning. For this reason, two additional dependent variables were included: risk appraisal (CARE; Fromme et al., 1997) and future orientation (CFC; Strathman et al., 1994).

Table 16  
*Defendants' Miranda Reasoning on the MRS-R Scales and Total MRS-R Scores*

MRS-R Scale	<i>M</i>	<i>SD</i>	Minimum	Maximum
Waive rights	9.30	2.07	3.00	12.00
Exercise rights	8.78	1.97	4.00	12.00
Total Score	18.08	2.91	10.00	24.00

The pretrial defendants evidenced average or better Miranda reasoning on the MRS-R (see Table 16), scoring an average of 18.08 out of a possible 24 points. They performed similarly on the two MRS-R scales, suggesting comparable abilities for waiving and exercising Miranda rights. The MRS-R also includes two forced-choice questions targeting beliefs about whether the assertion of rights may be used as incriminating evidence. Nearly all defendants (91.3%) knew their decision to request legal counsel could not be used against them in court. In contrast, 25.0% of defendants falsely believed their silence could be used to incriminate them.

### *Predictors of Miranda Reasoning*

Hypothesis 3 predicted that verbal intelligence (WASI Verbal IQ) and basic comprehension skills (WIAT-II Reading and Listening) would best predict Miranda reasoning (MRS-R) followed by overall psychological impairment (GAS). Hypothesis 4 predicted that in addition to cognitive and psychological variables, risk perception as measured by the CARE and future-oriented thinking as measured by the CFC would significantly predict Miranda reasoning. Unexpectedly, MRS-R scores were virtually unrelated to any of the variables examined (see Table 17). Therefore, the hypothesized relationships could not be further analyzed via regression or dominance analysis.

Table 17  
*Relationship between Miranda Reasoning and Cognitive, Psychological, and Judgment Variables*

	MRS-R Waive Scale	MRS-R Exercise Scale	MRS-R Total
Verbal IQ	.08	.12	.14
Performance IQ	.02	.05	.05
Full Scale IQ	.05	.09	.10
Reading	.06	.17	.15
Listening	.17	.15	.22
GAS	.15	-.02	.09
CFC	-.19	.03	-.11
CARE	-.05	.23	.17

*Note.* None of the correlations were significant at  $p < .05$ .

Rogers (2011) recently proposed a model of impaired Miranda reasoning abilities, which was examined in the current study as an alternative to the previously attempted correlational analysis. He proposed that adequate Miranda-related reasoning relies on three abilities. First, defendants must refrain from providing delusional or self-defeating reasons, as well as responses indicative of a damaging factual error (e.g., believing legal representation is contingent on one's ability to pay). Second, defendants

must consider alternatives, as indicated by their capacity to identify advantages and disadvantages of Miranda waiver decisions. Third, defendants must resist temporal discounting and address long-term outcomes. Based on this model, defendants were classified as having either adequate or impaired Miranda reasoning abilities.

Discriminant validity for the two groups was investigated (see Table 18) for cognitive abilities, overall psychological impairment, judgment variables, and Miranda abilities related to understanding and appreciation.

As expected, defendants with impaired Miranda reasoning exhibited significantly lower abilities for all cognitive variables other than Performance IQ. Surprisingly, those with impaired reasoning showed the largest decrement ( $d = 0.92$ ) for listening comprehension, on which they averaged 2.57 grades lower than those with adequate reasoning. Additionally, intelligence demonstrated the predictive effects for Verbal IQ ( $d = 0.62$ ). Performance IQ ( $d = 0.50$ ) showed a moderate effect. Finally, background characteristics and psychological functioning did not differentiate between the impaired and adequate reasoning groups.

Contrary to the judgment model, temporal discounting and the CARE appraisals of benefits did not differ between the two reasoning groups. However, CARE risks approached significance and revealed a moderate effect ( $d = 0.57$ ), suggesting those with impaired Miranda reasoning appraised risky activities lower than those with adequate Miranda reasoning. These findings are inconsistent with expectations based on judgment models that propose abilities such as risk perception and future-oriented thinking are critical to Miranda reasoning abilities. One possibility is that judgment abilities are critical to Miranda reasoning and waiver decisions, but that those abilities

are context specific. That is, general judgment abilities do not generalize across criminal justice contexts, such as being held in custody.

Table 18  
*ANOVA for Defendants with Adequate and Impaired Miranda Reasoning Based on Rogers' Model*

Variable	Adequate Reasoning			Impaired Reasoning			<i>F</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range			
Verbal IQ	91.05	10.07	73-108	84.17	11.98	59-113	4.32	.04	0.62
Performance IQ	98.73	13.22	70-128	91.83	14.22	63-114	2.84	.10	0.50
Reading grade	8.84	2.95	3.10-13.0	6.97	2.98	1.90-13.0	4.44	.04	0.63
Listening grade	10.18	2.06	6.80-13.0	7.61	3.39	3.20-13.0	9.33	.004	0.92
GAS	71.86	8.51	54-86	68.52	10.11	51-83	1.43	.24	0.36
CFC	39.36	8.80	15-56	39.79	8.73	26-60	.03	.87	-0.05
CARE risks	138.95	39.83	42-195	115.26	43.57	35-187	3.62	.06	0.57
CARE benefits	59.86	21.73	30-109	61.26	18.74	30-110	.05	.82	-0.07
MSS	66.29	18.50	21.0-92.0	62.68	23.69	17.0-92.0	.32	.57	0.17
MVS	73.11	14.86	41.67-94.44	61.59	20.98	13.89-88.89	4.47	.04	0.63
MQ	73.09	8.74	52.0-84.0	68.00	9.18	52.0-84.0	3.62	.05	0.58
FRI	25.95	2.66	18.0-30.0	25.43	3.09	19.0-30.0	.36	.55	0.18

Differences in specific Miranda abilities were examined due to their expected importance to Miranda reasoning (see Table 18). Without adequate comprehension of Miranda warnings and knowledge about the rights conveyed in the warnings, it is unlikely that defendants will be able to identify consequences associated with alternative waiver decisions. Significant differences emerged for Miranda vocabulary comprehension ( $d = 0.63$ ) and Miranda knowledge ( $d = 0.58$ ), but not for Miranda recall or appreciation of rights. It seems reasonable that the two groups did not differ with

respect to their abilities to recall Miranda warning components on the MSS, as it is a measure of immediate recall rather than a measure of defendants' understanding of the concepts in the Miranda warnings. It is, however, surprising that defendants with impaired Miranda reasoning did not exhibit a significantly lower capacity of appreciation of Miranda rights as measured by the FRI.

#### *Appraisal of the Likelihood and Importance of Miranda Waiver Consequences*

A critical step in legal decision making involves a defendant's perceived appraisals of the likelihood and desirability for alternative consequences (Appelbaum & Grisso, 1988, 1995; Bonnie, 1992, 1993; Grisso, 1997, 2003; Hilgendorf & Irving, 1981; Rogers & Shuman, 2005). In theory, the weight that defendants assign to potential consequences should subsequently be used to determine the best decision among available options. The current study examined how defendants appraise risks and benefits of what they perceive as consequences for waiving and asserting their Miranda rights. Specifically, defendants were asked to identify what they perceived as the best and worst consequences of both waiving and asserting Miranda rights. They subsequently rated the likelihood and desirability of each consequence identified using the likert scale previously discussed in the Methods section. The following paragraphs outline the key findings about defendants' appraisals regarding likelihood and desirability of perceived consequences for each legal decision.

Table 19

*Defendants' Perceptions of the Likelihood and Desirability of Consequences Associated with Miranda Waiver Decisions*

Likelihood of Perceived Consequences									
	Positive Consequences				Negative Consequences				<i>d</i>
	Median	<i>M<sup>a</sup></i>	<i>SD</i>	Excluded <sup>b</sup>	Median	<i>M<sup>a</sup></i>	<i>SD</i>	Excluded <sup>b</sup>	
Legal decision									
Waive rights	2.00	2.43	1.28	43	4.00	3.86	1.22	0	1.14
Exercise rights	4.00	3.59	1.44	11	4.00	4.00	1.28	13	0.30
Desirability of Perceived Consequences									
	Positive Consequences				Negative Consequences				<i>d</i>
	Median	<i>M<sup>a</sup></i>	<i>SD</i>	Excluded <sup>b</sup>	Median	<i>M<sup>a</sup></i>	<i>SD</i>	Excluded <sup>b</sup>	
Legal decision									
Waive rights	4.00	3.81	.46	43	4.00	3.89	.50	0	0.10
Exercise rights	4.00	3.87	.42	11	4.00	3.70	.65	13	-0.31

<sup>a</sup>Possible scores range from zero to five.

<sup>b</sup>Represents the number of defendants who were excluded due to reporting "there are none" when asked about perceived consequences for Miranda waiver or non-waiver decisions.

Defendants' personal appraisals of positive and negative consequences associated with waive and exercise decisions are summarized in Table 19. For the decision to waive Miranda, defendants anticipated that negative outcomes were much more likely than positive outcomes ( $d = 1.14$ ). Although only modestly ( $d = 0.30$ ), defendants perceived exercising rights as more likely to incur negative than positive consequences. As perhaps the most salient finding, defendants believed they were most likely to encounter negative consequences based on the decision to exercise rights to silence and legal counsel. The high frequency of Miranda rights waivers documented in previous research may be partially accounted for by defendants' poor awareness of potential benefits associated with asserting their legal rights.

Compared to appraisals of the likelihood of consequences, the pretrial defendants were much more balanced in their appraisals of the desirability of identified consequences of Miranda waiver decisions (see Table 19). On average, defendants rated all identified outcomes as either somewhat important or very important, suggesting they have an understanding of the seriousness of potential consequences of waiver decisions. On a positive note, defendants appraised obtaining perceived benefits of exercising as modestly more important than avoiding potential risks ( $d = 0.31$ ). Their responses in that regard may indicate their willingness to sacrifice some unpleasantness to ultimately receive greater benefits. Perhaps the most interesting finding is that defendants indicated it would be equally valuable to obtain perceived benefits and avoid perceived risks associated with the decision to forgo their Miranda rights.

Using defendants' ratings of the likelihood and desirability of consequences, an overall value (likelihood rating X desirability rating) was calculated for each alternative (see Table 20). Regarding their overall appraisals for consequences of waiving Miranda, avoiding disadvantages was markedly valued over obtaining perceived advantages ( $d = 1.09$ ). For exercising silence, however, their overall appraisals indicated only a modest preference ( $d = 0.20$ ) for avoiding negative over obtaining positive outcomes.

Table 20

*Defendants' Overall Appraisals of Consequences Associated with Miranda Waiver Decisions*

	Overall Appraisal <sup>a</sup>								
	Positive Consequences				Negative Consequences				<i>d</i>
	Median	<i>M</i>	<i>SD</i>	Excluded <sup>b</sup>	Median	<i>M</i>	<i>SD</i>	Excluded <sup>b</sup>	
Legal decision									
Waive rights	8.00	9.38	5.41	43	16.00	15.13	5.19	0	1.09
Exercise rights	16.00	13.84	5.74	11	16.00	14.90	5.03	13	0.20

<sup>a</sup>Overall appraisal = likelihood X desirability.

<sup>b</sup>Represents the number of defendants who were excluded due to reporting "there are none" when asked about perceived consequences for Miranda waiver or non-waiver decisions (i.e., their overall appraisal would equal zero).

*Rationality of Defendants' Case-specific Miranda Waiver Decisions*

Traditional conceptualizations (Appelbaum & Grisso, 1988, 1995; Bonnie, 1992, 1993; Grisso, 1997, 2003; Hilgendorf & Irving, 1981) propose that rational reasoning requires a cost-benefit analysis of relevant information to reach a decision. The analysis is a product of personal appraisals of the likelihood and probability of perceived consequences associated with alternative options. A reasoned choice is defined as one consistent with maximizing subjective expected utility when taking into account the weight (i.e., likelihood the consequence will occur and the desirability of enduring the consequence should it occur) given to perceived consequences of each decision. As such, the current study evaluated whether pretrial defendants made rational Miranda waiver decisions in their own cases based on their subjective cost-benefit analysis. Based on traditional decision making models, defendants who waived their Miranda rights would be expected to have appraised the perceived consequences of giving up their rights as more desirable and more likely to occur compared to the perceived consequences associated with asserting their rights. Conversely, defendants are



expected to have exercised Miranda rights when the perceived consequences of exercising are rated as more likely and more desirable than perceived consequences of waiving.

The methods used by defendants to weigh alternatives and their consequences when considering whether to waive or assert their Miranda rights are an essential component of rationally reasoned waiver decisions. Equally important, is whether they can apply such rational abilities to their own legal circumstances when making legal decisions. Using a cost-benefit analysis, the pretrial defendants in the current study weighed the decision to exercise Miranda ( $M = 24.41$ ;  $SD = 9.38$ ) as significantly more valuable than the decision to waive Miranda ( $M = 19.46$ ;  $SD = 6.94$ ) on average  $F(1, 79) = 17.68, p < .001, d = 0.60$ . In abstract, at least, these defendants generally reported they perceived exercising Miranda as the best decision. However, as discussed below, many defendants often failed to apply their logical reasoning when making legal decisions in their own cases.

Further analysis regarding the rationality of defendants' Miranda waiver decisions revealed that defendants frequently made waiver decisions that were inconsistent with how they weighed perceived consequences. An analysis of MRS-C responses revealed that 55.0% of defendants reasoned that exercising Miranda was the best decision while 30.0% reasoned that waiving Miranda was a better choice. A small proportion (15.0%) weighed the two alternatives as equally valuable. Their identified preferences were often contradictory to their actual Miranda waiver decisions. Of those who reasoned that exercising Miranda was the best decision, 45.5% cast that reasoning aside and waived Miranda. The same was true for a large majority of those who indicated a

preference for waiving Miranda, as 79.2% actually exercised their rights when faced with the decision. Based on these results 36.3% made decisions consistent with their preferences indicated on the MRS-C, while 48.8% made the opposite decision in their own cases. The remaining 15.0% indicated the two decisions were of equal value on the MRS-C. Of those, 58.3% waived Miranda in their own cases.

To further examine defendants' rational ability to generate risks and benefits of Miranda waiver decisions, the percentage of defendants who generated risks and benefits of waiver decisions were classified into the following categories by using the original MRS scoring criteria: Irrational, vague/no information, immediate consequence, or future consequence (see Table 21). Similar percentages of defendants adequately identified immediate or future consequences with regard to benefits and risks of waiving Miranda. When asked about the pros and cons of exercising Miranda, however, responses were more variable. A substantially higher percentage of defendants identified future (43.8%) over immediate (35.0%) benefits of exercising, whereas the opposite was true for expected risks of exercising; a majority (66.3%) anticipated immediate losses associated with the decision to assert legal rights.

Evidencing some awareness of the disadvantages for waiving Miranda, most defendants (90.0%) produced a logical (i.e., non-irrational or non-vague) risk associated with relinquishing their Fifth Amendment privilege. Interestingly, however, approximately equal proportions identified anticipated benefits of waiving (95.0%) and risks of exercising (93.8%). Thus, defendants are seemingly overestimating potential benefits of foregoing their legal rights, while also over-anticipating negative consequences should they chose to exercise their rights. Relative to the other domains,

defendants are seemingly least able to conceptualize the potential gains associated with exercising Miranda. The poorest reasoning was evident for their ability to generate benefits of exercising, as a comparatively smaller percentage (78.8%) produced adequate responses for this item.

Table 21  
*Defendants' Scores for each MRS-C Item*

MRS-C Item	MRS-C item score <sup>a</sup>							
	Irrational		Vague / no information		Immediate Consequence		Future Consequence	
	n	%	n	%	n	%	n	%
Benefit of waiving	1	1.3	3	3.8	32	40.0	44	55.0
Risk of waiving	0	0.0	8	10.0	31	38.8	41	51.3
Benefit of exercising	10	12.5	7	8.8	28	35.0	35	43.8
Risk of exercising	1	1.3	4	5.0	53	66.3	22	27.5

<sup>a</sup>MRS-C items were scored using the original MRS four-point scoring system.

#### *Quality of Reasons Identified in Defendants' Own Legal Circumstances*

Although perhaps the most essential facet of reasoning about Miranda waiver or non-waiver decisions, previous studies have rarely examined the actual reasons defendants identify for waiving or asserting Miranda rights in their own legal cases. As the first study focusing primarily on pretrial defendants' waiver decisions, case-specific reasoning was examined via the MRS-R by asking defendants what their personal reasons were for waiving or asserting the right to silence and legal counsel (see Table 22). Defendants' case-specific reasons for exercising the right to an attorney appear to be more immediate in nature (61.3% vs. 19.4%), whereas reasons for exercising silence

were much more split between reflecting a consideration of immediate and long-term outcomes. No defendants acknowledged any future consequence for waiving the right to silence or counsel, which makes sense considering that there are few, if any, positive future outcomes of forgoing legal protections. The most salient finding is that defendants' case-specific reasons given for their own waiver decisions reflect an overall higher level of impairment (i.e., a substantially higher percentage of defendants generated impaired or vague responses) when compared to other MRS-R items.

Table 22  
*Defendants' MRS Scores for Case-Specific Responses*

	MRS item score							
	Irrational		Vague or no information		Immediate Consequence		Future Consequence	
	n	%	n	%	n	%	n	%
Reasons for talking	3	9.4	13	40.6	16	50.0	0	0.0
Reasons for not talking	1	2.1	22	45.8	14	29.2	11	22.9
Reasons for asking for attorney	0	0.0	6	19.4	19	61.3	6	19.4
Reasons for not asking for attorney	11	22.4	26	53.1	12	24.5	0	0.0

*Note.* 40.0% Talked ( $n = 32$ ); 60.0% Did not talk ( $n = 48$ ); 38.8% Asked for attorney ( $n = 31$ ); 61.3% Did not ask for attorney ( $n = 49$ ).

## CHAPTER 4

### DISCUSSION

Custodial incommunicado interrogations were deemed inherently coercive by the Supreme Court in *Miranda*, who implemented safeguards to protect Constitutional rights. Specifically, the Court acknowledged the “innate secrecy” of interrogations in the landmark *Miranda* decision (see p. 532) and has accordingly imposed procedural safeguards to uphold legal protections afforded by the Fifth and Sixth Amendments of the U.S. Constitution. Those safeguards require that suspects (a) be advised of their legal rights, and (b) knowingly, intelligently, and voluntarily waive their rights prior to interrogation by law enforcement. If challenged, suspects’ statements made outside those safeguards are not admissible as evidence in court. As indicated in the Introduction, Kassin and Gudjonsson (2004) identified two primary reasons for such guidelines, which entail (a) protecting the accused against violations of their Constitutional rights, and (b) minimizing the risk for false confessions by innocent suspects.

Constitutional safeguards are intended to protect the more than 13 million individuals arrested annually in the United States (Uniform Crime Report; FBI data; 2011). With few exceptions, those millions of suspects were informed of their Constitutional rights to silence and legal counsel prior to any custodial questioning by law enforcement. Despite routine advisements of legal safeguards, approximately 80% of suspects waive their rights, thereby agreeing to answer law enforcement’s questions without the benefit of legal counsel (Kassin et al., 2007; Leo, 1996; Leo & White, 1999; Moston, Stephenson, & Williams, 1993). Subsequently, approximately half of suspects

waive their rights and proceed to provide incriminating evidence – if not a full confession – regarding their involvement in a crime (Gudjonsson, 2003).

Suspects waiving their rights to legal counsel may not fully appreciate the importance of their decisions and the potential consequences in the context of any admissions to law enforcement. Confessions, even if false, are extremely powerful and have detrimental consequences. Drizin and Leo (2004) characterized confession evidence as “inherently prejudicial and highly damaging to the defendant, even if it is the product of coercive interrogation, even if it is supported by no other evidence, and even if it is ultimately proved false beyond any reasonable doubt” (p. 959). As such, the decision to waive interrogative rights may be the single most consequential legal decision a defendant can make.

Surprisingly, the validity of Miranda waivers is rarely questioned despite the high prevalence of waivers and their potentially dire consequences for both guilty and innocent suspects (Rogers et al., 2010). An informal survey of public defenders revealed that out of about 22,000 felony cases Miranda waiver validity issues were not raised in a single case (Rogers, 2008). As a potential explanation for the infrequency of contested Miranda waivers, Rogers (2011) introduced the *professional neglect hypothesis*. According to the professional neglect hypothesis, legal professionals do not question Miranda waivers because of their own assumptions about Miranda and defendants’ capacities.

At least two factors emerge as logical explanations underlying Rogers (2011) professional neglect hypothesis: (a) the legal threshold for a valid waiver is low and (b) there is an implicit assumption that everyone – including suspects – already

understands their Miranda rights. On the first point, the Court specified in *North Carolina v. Butler* (1979, p. 373) that “an express written or oral statement of a waiver of the right to remain silent or of the right to counsel is usually strong proof of the validity of that waiver.” In that regard, once a suspect is Mirandized and subsequently agrees to talk, it is generally assumed that such a waiver represents knowing, intelligent, and voluntary decisions.

As noted by Rogers, Shuman, and Drogin (2008, p. 5), courts assume “everyone understands” Miranda warnings. One explanation for this strongly held belief is that most defendants affirm their understanding of the warnings when queried on the matter. According to Rogers (2008), 84.6% of Miranda warnings used in U.S. jurisdictions ask suspects whether they understand their Miranda advisements. If suspects appear to listen to Miranda warnings, confirm their understanding, and indicate their willingness to talk to law enforcement agents, the commonsensical conclusion is that such waivers are knowing and intelligent. Given defendants’ self-appraisal of their understanding and the previously stated assumption (i.e., everyone understands the Miranda warnings), this conclusion appears reasonable. Moreover, it seems counterintuitive that suspects would claim understanding of such critical information when they lack an adequate grasp of the information. However, results from the current study and previous Miranda-related research challenge this fundamental assumption of Miranda’s framework. Specifically, research (Rogers, 2008) indicates a breath-taking number of defendants (e.g., more than 318,000 annually) waive their rights annually when they understood less than 50% of the Miranda warnings. This finding is particularly

problematic considering that self-appraisals are often considered strong evidence of a knowing and intelligent waiver.

Numerous authors (Godsey, 2006; Nguyen, 2000; Rogers, 2008; Rogers & Drogin, 2008) have observed the ubiquity of Miranda warnings in American culture by the frequency with which they appear on television shows related to the criminal justice system. As a result, it seems implausible for most English-speaking persons living in the United States to deny familiarity with the Miranda warnings. In fact, Rogers (2008) commented that most Americans believe they know their legal rights. Unfortunately, the pervasive influence of police dramas has resulted in the often-inaccurate assumption that everyone knows their Miranda rights.

The Supreme Court ostensibly presumes familiarity equates knowledge and comprehension, as prior experience with the legal system is indicated in *Coyote v. U.S.* (1967) as a relevant factor to consider in the totality of circumstances surrounding a waiver of rights. Indeed, most defendants (78.8%) in the current research study acknowledged they had been exposed to the Miranda rights via police dramas on television. A slight majority (57.5%) even recalled the warnings from a previous arrest. However, as found in previous studies (Rogers 2011; Rogers et al., 2010), their experienced-based familiarity cannot be equated with accurate understanding. Moreover, defendants with over-estimated self-appraisals (e.g., believe they already know their rights) may not attend to Miranda warnings, thereby curtailing their potential effectiveness in informing the criminally accused.

In light of the potentially detrimental consequences of confessions, the practical application of Miranda rights has become increasingly scrutinized in both research and



forensic practice (Helms, 2003). Based on the aforementioned statistics, there are a remarkable number of defendants who are at risk of having their Constitutional protections disregarded. Legal professionals must pursue adequate precautions to minimize violations of these defendants' Constitutional rights.

Knowing and Intelligent decisions to waive legal rights rely on a “reasoned choice among available alternatives” (*Godínez v. Moran*, 1993, p. 394), although the Supreme Court has not specified the conditions of a “reasoned choice.” Without such specification, operational definitions and subsequent clinical frameworks for assessing rational abilities – as examined in the Introduction – rely on guidance from theoretical perspectives provided by traditional and legal decision making models. Based on those models, a reasoned decision relies on three underlying capacities: Understanding, Appreciation, and Reasoning. This chapter primarily (a) provides a brief review each of these three capacities, (b) reviews how pretrial defendants in the current study performed with respect to each capacity, and (c) discusses the applicability of different legal decision making models in the context of their applicability or inapplicability to pretrial defendants' Miranda waiver decisions in the current study.

#### Understanding of Miranda Rights

The adequacy of defendants' legal decisions relies heavily on the capacity to understand information relevant to these determinations. Using a decisional competence model, Hoge, Bonnie, Poythress, and colleagues (1997) proposed that understanding – the first level of decisional competence – requires both factual knowledge of legal rights and procedures and the capacity to identify plausible reasons for alternative legal options. As applied to Miranda waiver decisions, a factual

knowledge is achieved only with a demonstrated understanding of (a) the words and phrases of the Miranda warnings and (b) the legal rights the warnings are intended to convey (Grisso, 2003; Rogers & Shuman, 2005). With respect to legal procedures, Rogers and Shuman suggested that decisional competence also relies on whether suspects adequately comprehend how Miranda waiver decisions could consequently affect their legal cases at the time of their decision and in the future. From a clinical perspective, the requisite capacities for adequate understanding include accurate recall of the Miranda warning, knowledge of Miranda vocabulary, and sufficient understanding of the recalled information. To examine whether suspects meet requirements indicated at the first level of decisional competence, each of these functional abilities were evaluated in the current study.

### *Miranda Warning Recall*

Custodial suspects are typically informed of their legal rights to silence and legal counsel via oral or written advisements of Miranda rights subsequent to their arrests. They must then process and later recall the relevant information communicated in the warnings in order to make informed decisions whether to waive or assert their rights. As a basis for this determination, defendants must demonstrate the capacity to recall the basic components of the Miranda warnings. The current study employed methods used in previous research (e.g., Grisso, 1998; Rogers, 2008; Rogers et al., 2011) to test defendants' capacity to recall Miranda warning content. Specifically, the pretrial defendants were presented with the five Miranda warning components and subsequently asked to paraphrase the content of each component using their own

words. Notably, the five Miranda components were presented one at a time, which likely maximizes recall.

Quite concerning, only small numbers of defendants in the current study exhibited adequate recall of the Miranda warnings. Using a low benchmark for good recall (i.e.,  $\geq 70\%$ ), merely 15.2% demonstrated adequate recall of a moderately difficult Miranda warning. Although the percentage of defendants with good Miranda recall is substantially less than ideal, findings from the current study are not surprising when compared with previous research. Using the same methodology, Rogers (2008) found only 20.5% of a pretrial defendant sample exhibited good Miranda warning recall. It can be hypothesized the subtle differences obtained in the current research may be attributed to sample characteristics (e.g., arrests, cognitive abilities); however, those data were not available for comparison. Nonetheless, current results provide consistent support for Rogers' conclusion that, even at the most basic level, defendants are often unable to grasp Miranda's words and phrases. As such, a remarkable number of Miranda waivers may be deemed insufficient according to the Supreme Court's standards for knowing and intelligent waiver decisions.

Miranda warnings are ineffective as procedural safeguards unless custodial suspects have adequate knowledge regarding each of the Miranda warning components (Godsey, 2006). As indicated by Helms and Holloway (2006), understanding of only a portion of the warnings would not fulfill the Supreme Court's requirements outlined in *Miranda* (1966). For each of the five Miranda warning statements, at least one key concept was omitted by more than half of defendants in the current study. Errors in recall were observed even for the first component (i.e., right to

silence), which previous studies consistently found to be the easiest component to accurately paraphrase (Blackwood, 2009; Helms & Holloway, 2006; Rogers, Rogstad, Gillard, Drogin, Blackwood, & Shuman, 2010; Rogers et al., 2011).

Two common errors in recall were observed for the first Miranda component in the current study. First, when recounting the right to silence component, defendants frequently (61.3%) failed to grasp that asserting their Miranda rights would stop questioning. In other words, they are often insufficiently apprised of the beneficial consequences of choosing to invoke the right to silence. As a second common error, 67.5% did not grasp their silence is safeguarded (i.e., cannot be used against them). In comparison, Rogers and colleagues (2011) found that the potential risks of asserting silence was often misunderstood by criminal defendants. When tested using various language versions of the first Miranda component, defendants in their study frequently (49.5% - 60.4%) failed to recall that an assertion of rights cannot be used as incriminating evidence. Common errors in recall for the second component – also related to the right to silence – included failure to grasp that making a statement was equivalent to “giving up” the right to silence (70.0%). Defendants also frequently (57.5%) did not indicate the context in which incriminating statements could be used (i.e., in court).

Suspects’ right to legal counsel is conveyed in the third Miranda component, and the fourth component communicates the opportunity for court-appointed legal counsel for indigent suspects. Consistent with previous research (Blackwood, 2009; Cooper & Zapf, 2008; Everington & Fulero, 1999; Grisso, 1998; Helms & Holloway, 2006; Rogers et al., 2011), current findings indicate that comprehension of the right to counsel is

considerably more difficult relative to other components. Defendants in the current study typically recalled the basic concept of the right to an attorney. However, similar to Rogers and colleagues (2011) and Blackwood (2009), slightly more than half of defendants in the current study had difficulty recalling the timing for which an attorney may be consulted. Similar percentages did not recall they could talk with an attorney *before questioning* (56.3%) or have an attorney present *during questioning* (51.3%). Regarding concerns about appointed legal counsel for indigent defendants, many failed to grasp they would not be held financially responsible for appointed counsel (63.8%). Moreover, almost all defendants (97.5%) may not realize that counsel can be appointed prior to any formal questioning. In that regard, many defendants may believe appointed legal counsel is reserved for representation in court rather than in the more immediate circumstances of interrogation.

The fifth Miranda component relates the ongoing nature of Miranda rights from arrest to the end of trial proceedings. In the current study, 50.0% of defendants could not recall their rights could be reasserted *at any time*, suggesting they may assume that an initial decision to waive Miranda rights is a permanent one. In comparison, Rogers and colleagues (2011, p. 272) also found almost half of defendants (42.4% - 51.1%) failed to recall “the decision to renounce these rights is not final and can be revoked when you so desire.” In summary, both the current study and past research consistently evidence problematic phrases of Miranda warnings that may need further emphasis or explanation for defendants to accurately grasp the key knowledge necessary to make an informed Miranda waiver decision. Importantly, basic recall of Miranda warnings does not equate comprehension of legal rights (Rogers, 2008). In

other words, mere recitation of Miranda concepts cannot be automatically equated with genuine understanding.

### *Comprehension of Miranda Warning Vocabulary*

Comprehension of key terminology used in Miranda warnings provides the foundation for any knowledgeable understanding of Constitutional protections. In the current study, approximately one-fourth of pretrial defendants failed to demonstrate even partial comprehension for 14 (38.9%) of the 36 Miranda terms, with seven of those terms being poorly understood by a majority (55 - 88%) of defendants. The highest failure rates occurred for the related words “coerced” (88.6%) and “coercion” (87.3%). Remarkably high failure rates for these words may be attributed to their difficulty, as they require an advanced education (i.e., 16<sup>th</sup> and 13<sup>th</sup> grade level respectively). Despite the high level of word difficulty, these words are commonly used in Miranda warnings across the United States (Rogers, Hazelwood, Harrison, et al., 2008).

The majority (60.8%) of defendants failed to provide an accurate definition for the word “right,” which is one of the most important Miranda terms. Their most common problem was defining “right” as it applies in a legal context, rather than other contexts (e.g., “correct”). Without a contextual understanding of a “right” as an entitlement, this component of Miranda warnings is likely to become an empty formality. “Proceedings” and “incriminate” were also among the most poorly defined words. These words are critical to adequate Miranda warning comprehension and subsequent waiver decisions. As suggested by Rogers and colleagues (2011), such problematic terms could easily be replaced with simpler terms such as “trial” and “against you.”

Six of the seven most commonly missed Miranda terms in the current study also topped the list of poorly understood words in Rogers and colleagues' (2011) research. In the current study, "prosecution" was also inaccurately defined by a majority of defendants. Despite the one word discrepancy, data from current and past research consistently indicates criminal defendants are unable to accurately define a subset of frequently used Miranda terms. This issue could easily be addressed with substituting simpler words with similar meanings.

For the six terms (i.e., consult, attorney, interrogation, appoint, entitled, and right) tested by Grisso (1998), findings from the current study evidenced a substantially larger percentage of defendants failed to demonstrate correct understanding for five of the words. "Interrogation" was the one exception, as Grisso found this word to be incomprehensible for almost twice as many adult offenders. The higher failure rates for five words in the current study may be attributed to sample differences. Specifically, the current sample was comprised of pretrial detainees, whereas Grisso's sample was comprised of probationers living in the community. The considerably greater impairment found for the current sample is likely related to the increased distress resulting from the current detainment of defendants in the current study.

### *Knowledge of Miranda Rights*

Criminal suspects cannot be viewed as "blank slates" without prior knowledge that are expected to absorb information via a cursory reading of Miranda warnings. As evidenced in previous and current research, defendants often have impaired abilities to sufficiently recall fundamental concepts of Miranda warnings, even immediately after a recent exposure to the warnings. Miranda warning comprehension is further

complicated because some Miranda information is previously learned, or more importantly, mislearned (Rogers, 2008). Firmly held misconceptions about Miranda rights and their application may lead to impaired Miranda rights understanding regardless of whether a defendant sufficiently comprehends the Miranda components. The current study assessed defendants' prior (mis)assumptions pertaining to salient Miranda warning content. As expected based on previous research (Rogers et al., 2010), defendants in the current study evidenced substantial Miranda misconceptions. On average, they held eight misguided beliefs about the application of their legal rights to silence and presence of legal counsel.

Defendants in the current study held inaccurate beliefs regarding many of the same Miranda issues as found by Rogers and colleagues (2010). They were particularly misinformed about the legality of deceptive police interrogation tactics, and they commonly held misconceptions regarding the applicability of Miranda rights. For example, many falsely believed police are legally prohibited from introducing evidence of fictitious crimes (58.8%) or eyewitnesses (60.0%) as a method to extract a confession during interrogations. Regarding the application of Miranda rights, a substantial majority (67.5% to 75.0%) held inaccurate knowledge about the circumstances in which Miranda applies. Quite concerning, more than one-fourth (26.3%) of defendants believed there is no reason to pay attention when advised of their rights because all Miranda warnings are the same. In this case, previously mislearned information about Miranda cannot be corrected, and therefore, may continue to misinform subsequent waiver decisions. It is not surprising that defendants are poorly informed about deceptive police practices considering it is not specifically addressed in



the five components of Miranda warnings required by Supreme Court standards. However, such misassumptions may often play a determining role in Miranda waiver decisions.

Any firmly held inaccurate belief may be extremely influential, and potentially detrimental, to Miranda understanding and subsequent waiver decisions. Notably, 11 (44.0%) items were failed by more than one-third of defendants. In addition to the problematic items noted above, defendants frequently failed to understand items containing legalese, such as “withdraw your waiver” for reassertion of rights or “indigent defendants” when referring to free legal services. As perhaps the most blatant false belief, about one-third (35.0%) of defendants believed their silence in itself could be incriminating. Misinformation about the right to silence may be corrected if suspects seek legal consultation. Unfortunately, however, past research indicates that a substantial majority will not seek legal counsel, thus their Miranda waiver decisions may frequently be driven by faulty information. In those cases, defendants’ decisional competence is at risk for impaired reasoning.

#### Appreciation of Miranda Rights

Relevant knowledge of Miranda warning words and phrases constitutes only a minimal standard of Miranda knowledge. It is a moot point if defendants fail to appreciate how their rights apply to their own legal circumstances. As a more stringent requisite for decisional competence, competent decisions require sufficient appreciation of the nature and significance of the decision faced with (Bonnie, 1992, 1993; Grisso & Appelbaum, 1998). In that regard, appreciation refers to the ability to apply key knowledge to one’s own circumstances.

The necessary appreciation for competent Miranda waiver decisions is construed as an understanding of general functions of Miranda rights. Specifically, as outlined in the Introduction, Grisso (1998, 2003) proposed competent waiver decisions require accurate perceptions of the legal system in three fundamental areas: (a) the adversarial nature of police proceedings, (b) the potential value of attorney consultation, and (c) the continuous nature of the right to silence.

Defendants who hold inaccurate perceptions about the function of Miranda rights may be unable to apply critical information to their legal circumstances and make competent waiver decisions. In the current study, Grisso's (1998) Function of Rights in Interrogation (FRI) was used to evaluate the pretrial defendants' capacity to appreciate their Miranda rights. As expected based on Grisso's (1998) normative data, the pretrial defendants in the current study had cognitive inaccuracies that impaired their capacity to fully grasp how Miranda rights apply in their legal circumstances. Overall, 47.5% exhibited inadequate appreciation for at least two FRI concepts and a substantial minority (21.3%) were impaired in three or more areas of Miranda appreciation.

Defendants commonly acknowledge the adversarial nature of police questioning, but fail to fully appreciate the application to their own cases. Grisso (1998) found that 97.0% of adult offenders understood the general purpose of interrogation is to elicit incriminating evidence. In contrast, 25.1% did not appreciate the direct consequences of providing such incriminating evidence (i.e., used in their prosecution). Results from the current research closely mirrored Grisso's previous findings; 93.8% of defendants recognized the general purpose of interrogative questioning, yet only 17.5% identified how any incriminating statements would consequently be used against them in future

court proceedings. As noted by Rogers and Shuman (2005), full appreciation requires awareness of Miranda waiver consequences.

Defendants evidenced substantially greater appreciation regarding the right to counsel and the potential value of seeking legal consultation. In the current study, defendants' responses reflected adequate appreciation for all queries related to the purpose of legal counsel (5.0% or less failed any item). Grisso's (1998) offender sample also performed significantly better in this area of Miranda appreciation relative to other domains. Specifically, he found failure rates ranging from 3.9% to 9.9% for items assessing the right to legal counsel, which is slightly more variable than the current research ( $\leq 5.0\%$ ) failures. In comparison, 5.0% or less of the current sample evidenced poor appreciation in their responses to the same inquiries.

Very troubling, nearly three-fourths of defendants had inadequate appreciation of the meaning of their right to silence. As two common inaccuracies, both past (Grisso, 1998) and current findings illustrate defendants often (a) fail to understand a "right" as a Constitutional safeguard and (b) misperceive the continuous nature of the right to silence. Regarding the first, 21.7% of Grisso's offenders and 20.0% of the current defendants failed to appreciate that their silence was protected. On the second point, many failed to conceptualize the continuous nature of the right to silence. Specifically, Grisso found that 42.9% were unaware that their right to silence applies in future court proceedings (e.g., trial). As a corollary to Grisso's research, 55.0% of the current defendants believed their right to silence could be revoked by a judge during a future court proceeding. A significant, yet much smaller percentage (17.5% failed) had no understanding of the consequences of invoking silence (e.g., police should comply with

defendant's request to be silence). In general, these findings suggest defendants generally exhibit understanding of the immediate advantages of the right to silence, but often fail to grasp its application to future criminal proceedings.

The practical effectiveness of Miranda warnings relied on the assumption that defendants can understand both the general meaning and the personal significance of the warnings (Cloud et al., 2001). Contrary to this assumption, research indicates that many who waive their rights grasp how Miranda rights apply in general, but are unaware of the personal and legal significance.

### Miranda Reasoning

As the third level of decisional competence, knowing and intelligent Miranda waiver decisions require that defendants rationally consider relevant information to inform subsequent legal decisions. Legal frameworks (e.g., *Godínez v. Moran*, 1993, p. 394) indicate the competence or incompetence of a waiver of legal rights lies in defendants' capacity to produce a "reasoned choice among available options." To parallel those guidelines from previous legal cases, clinical conceptualizations of decisional competence (Appelbaum & Grisso, 1988; Bonnie, 1992, 1993) incorporate rational abilities into their formulations of what constitutes a rational legal decision. Currently, however, no bright-line standards exist regarding specific rational abilities necessary for knowing and intelligent legal decisions.

As outlined in the Introduction, decisional competence models propose a common subset of rational abilities necessary for competent legal decisions. However, alternative decision making models differ conceptually in the type of decisional capacities perceived as essential to the development of a rational decision. In that

regard, the current study focused on the process by which defendants make Miranda waiver decisions to examine the applicability of proposed decision making models. As summarized in the Introduction, five common components of rational reasoning abilities emerge across models of legal decision making (Appelbaum & Grisso, 1988, 1995; Bonnie, 1992, 1993; Grisso, 1997, 2003; Hilgendorf & Irving, 1981; Rogers & Shuman, 2005). As previously discussed in detail (see Table 2), those five rational reasoning abilities include (a) identifying alternative options, (b) generating consequences for each alternative, (c) evaluating the desirability of perceived consequences, (d) assessing the likelihood of perceived consequences, and (e) utilizing a rational reasoning process to arrive at the best decision under a given set of circumstances. Traditional decisional competence models based on informed consent theory (Appelbaum & Grisso, 1988; Bonnie, 1992, 1993) have focused primarily on cognitive tasks underlying decision making. Other models provide broader perspectives that introduce the potential effects of impaired judgment of circumstances (Scott et al., 1995) and potential effects of situational factors (Hilgendorf & Irving, 1981). The following section discusses the applicability of decisional models in the context of the current defendants' Miranda waiver decisions.

#### *Decisional Competence Model*

Bonnie's (1992, 1993) decisional competence model focuses heavily on the cognitive aspects of decision making, particularly the ability to rationally manipulate relevant knowledge in reaching a decision. In his model, the rationality of legal decisions relies primarily on the decisional process rather than the outcome. Specifically, a reasoned choice requires the capacity to weigh relevant information in

order to arrive at a decision that might best meet an individual's needs in a given set of circumstances. Rational reasoning, therefore, requires sufficient cognitive capacities to think rationally about alternatives and consequences of legal decisions.

Perceived appraisals of the likelihood and desirability for alternative consequences play an essential role in the process of legal decision making (Appelbaum & Grisso, 1988, 1995; Bonnie, 1992, 1993; Grisso, 1997, 2003; Hilgendorf & Irving, 1981; Rogers & Shuman, 2005). In theory, defendants' decisions are rationally based on their appraisals of potential consequences of each alternative. Past Miranda reasoning studies (Rogers, Harrison, Hazelwood, & Sewell, 2007; Grisso, 1981) have taken a first step by broadly focusing on defendants' identified reasons for waiving or asserting Miranda rights. Questions remain, however, regarding the manner in which defendants weigh perceived consequences of waiver decisions. Thus, a primary focus of the current study was to evaluate how defendants appraise risks and benefits of what they perceive as consequences for alternative Miranda waiver decisions. As discussed below, the current study aimed to answer the important question of whether criminal defendants make rational decisions based on their personal appraisals of perceived Miranda waiver consequences.

#### *Rationality of Pretrial Defendants' Case-specific Miranda Waiver Decisions*

The rationality of pretrial defendants' Miranda waiver decisions was determined by implementing theoretical concepts outlined in traditional decisional competence models. As indicated by traditional legal decision making conceptualizations (Appelbaum & Grisso, 1988, 1995; Bonnie, 1992, 1993; Grisso, 1997, 2003; Hilgendorf & Irving, 1981), rational reasoning relies on a cost-benefit analysis of relevant

information to determine the best decision among options. In that regard, a defendant's personal appraisal of the likelihood and probability of perceived consequences forms the foundation for subsequently weighing which alternative is most rational. A reasoned choice is defined as one that maximizes expected utility when considering the weight (i.e., the likelihood and the desirability of each consequence) assigned to perceived consequences of decision options. Using that model of a reasoned choice, the current study evaluated whether pretrial defendants made rational Miranda waiver decisions in their own cases based on the subjective cost-benefit analysis of each alternative related to Miranda waiver decisions.

As discussed above, weighing alternatives and their consequences when considering whether to waive or assert Miranda rights is an essential component of rationally reasoned waiver decisions. Equally important, is whether defendants can apply such rational abilities to their own legal circumstances when making legal decisions. Using a cost-benefit analysis, defendants in the current study weighed the decision to exercise Miranda as significantly ( $d = 0.60$ ) more valuable than the decision to waive Miranda. In abstract, therefore, defendants reported they perceived exercising Miranda as the best decision. However, this logical reasoning was not necessarily applied in their cases.

Defendants frequently made irrational waiver decisions in their own legal cases. That is, their decisions conflicted with their weighted alternatives. When defendants' preferred choice was compared to their actual Miranda waiver decisions, general findings were remarkably contradictory to expectations. Of those defendants who believed asserting Miranda was the best decision, 45.5% cast that reasoning aside and

relinquished their legal rights in their own cases. The same trend was true for a large majority of defendants whose reasoning indicated a preference for waiving Miranda; 79.2% actually invoked their rights when faced with the decision in their own cases. Across both options, nearly half (48.8%) discounted their rational reasoning by choosing the less favorable alternative in their own cases. Interestingly, no significant differences were observed for these groups when comparing their cognitive or Miranda-related abilities. These findings indicate traditional decisional competence models appear conceptually sound, but often failed when applied to real-world legal decisions. As the first study of decision making models, no data exist for comparative purposes. As discussed in subsequent sections, however, several broad hypotheses for defendants' seemingly irrational decisions can be considered in the context of alternative legal decision making models.

### *Judgment Model of Legal Decisions*

Defendants' seemingly irrational decisions may be attributed to impaired judgment. As discussed in the Introduction, critics such as Scott and colleagues (1995) have argue decisional competence models (e.g., Bonnie, 1992, 1993) provide narrow, incomplete conceptualizations of legal decisions. They propose traditional decisional models fail to address how immature or impaired judgment compromises legal decision making capacities. Focusing on that limitation, Scott and colleagues introduced a judgment model by expanding traditional models to address how poor judgment abilities affect legal decisions. Specifically, their model focuses on potential effects of three judgment-related abilities, including risk perception, temporal perspective, and



compliance with authority. As an initial investigation, the current research focuses on risk perception and temporal perspective.

### *Risk Perception*

According to U.S. Supreme Court decisions (*Iowa v. Tovar*, 2004; *Colorado v. Spring*, 1987; *Miranda v. Arizona*, 1966), risk awareness constitutes an essential functional capacity required for any reasoned Miranda waiver decision. The landmark *Miranda* decision requires recognition of the risk of self-incrimination, as interrogation involves gathering evidence against the accused. *Colorado v. Spring* later reaffirmed this requirement in ruling suspects must be “fully advised of this constitutional privilege, including the critical advice that whatever he chooses to say may be used as evidence against him” (p., 479).

Based on current findings, a significant proportion of criminal defendants fail to identify the risk of self-incrimination when considering alternative Miranda waiver decisions and their consequences. One-fourth of pretrial defendants failed to identify potential self-incrimination when generating perceived problems with waiving their right to silence. When defendants who exercised Miranda in their own cases were specifically asked about their personal reason for doing so, only 22.9% reported their decision making incorporated a consideration the risk of self-incrimination. In comparison to mentally disordered offenders with severe psychological impairment (Rogers, Harrison, Hazelwood, et al., 2007), only a slightly smaller percentage of non-disordered defendants in the current study identified an awareness of the risk of self-incrimination. Whereas one-fourth of current defendants failed to identify this risk, the

deficit was only about 10% higher for Rogers and colleagues' mentally disordered defendants (i.e., 36.4%).

Defendants must also be aware of the risks of waiving legal counsel. The Supreme Court in *Iowa v. Tovar* (2004) held that valid waivers of legal counsel require awareness that a waiver is associated with the risk that a viable defense will be overlooked. Among current defendants who asserted their right to counsel, 32.3% broadly indicated they did so because they believed an attorney could assist with their legal case. Very few indicated their decision was influenced by specific defense-related expectations, such as inability to defend oneself adequately (3.2%), inability to communicate effectively with legal professionals (3.2%), or poor knowledge of legal procedures (3.2%). A comparison with Rogers, Harrison, Hazelwood, and colleagues' (2007) study revealed a surprising discrepancy: A strikingly higher percentage of their mentally disordered offenders (83.2%) identified legal assistance as an advantage of asserting the right to counsel. One potential explanation for the remarkable difference may be attributed differences in methodology. Specifically, defendants in the current study were asked about their case-specific reasons for asserting rights, while past research inquired about possible rather than personal reasons.

In the context of Miranda waiver decisions, Woolard (2003) argued good judgment requires defendants to weigh perceived risks of waiving their legal rights (e.g., self-incrimination) more heavily in comparison to perceived risks of exercising legal rights (e.g., angering police). As a study of developmental differences, Grisso, Steinberg, Woolard, and colleagues (2003) found youth under the age of 14 identified fewer risks associated with legal decisions, perceived those risks as less likely to occur,

and anticipated less impact from risks. While previous research examined developmental differences, the current study expanded to adult offenders and uniquely focused on the novel question: How do defendants weigh risks compared to benefits of waiving and exercising Miranda rights?

Applying a judgment model of rational decisions, defendants in the current study rated the likelihood and desirability of perceived consequences of Miranda waiver decisions. Consistent with good judgment, these defendants anticipated negative outcomes were much more likely to occur ( $d = 1.14$ ) than positive outcomes with a decision to waive Miranda rights. Specifically, approximately one-third of defendants indicated they believed the likelihood of risks occurring was higher if they chose to exercise as opposed to waive Miranda. Perhaps the most concerning finding is that the decision for which defendants believed they were most likely to encounter negative consequences was the decision to exercise rights to silence and legal counsel. These findings suggest the high frequency of Miranda rights waivers documented in previous research (Kassin et al., 2007; Leo, 1996; Leo & White, 1999; Moston, Stephenson, & Williams, 1993) may be partially accounted for by defendants' relatively poor perception of the likelihood of potential benefits associated with asserting their legal rights.

Regarding desirability of consequences, defendants rated all identified outcomes as either somewhat or very important suggesting they have an understanding of the seriousness of potential consequences of waiver decisions. On a positive note, defendants' appraisals evidenced the belief it is modestly more important to obtain perceived benefits of exercising their legal rights than to avoid perceived risks ( $d = 0.31$ ). Only a small percentage (11.3%) exhibited impaired judgment by indicating they

would rather encounter the negative outcomes of waiving at the expense of forgoing positive outcomes of exercising. Their responses in that regard may indicate their willingness to sacrifice some unpleasantness to ultimately receive greater benefits.

### *Temporal Perspective*

Within the judgment framework, temporal perspective constitutes an essential component to rational legal decision making (Scott et al., 1995). As discussed in the Introduction, temporal perspective is defined as the capacity to identify, incorporate, and weigh the significance of potential long-term consequences of decision options (Woolard, 2003). Rational legal decisions are those demonstrating adequate temporal perspective by weighing *future* negative consequences (e.g., self-incrimination) more heavily than *immediate* positive consequences (e.g., completing the interrogation). Sigurdsson and Gudjonsson (1994) recognized the effects of temporal discounting in suspects' decision making. For hundreds of cases, 60% of suspects confessed based on the faulty premise that they would be allowed to go home if they "cooperated" with police (i.e., an immediate solution).

One potential explanation for the current defendants' seemingly irrational decisions may be related to temporal discounting. Interesting trends emerged when defendants were asked about the best and worst potential outcomes of alternative Miranda waiver decisions (i.e., waiving and exercising). Slightly more than half (55.0%) of defendants identified a future benefit of waiving their legal rights, while only 43.8% reported a future benefit of exercising. Among the worst potential outcomes identified, 51.3% of defendants acknowledged a future disadvantage of waiving Miranda and 27.5% reported a future risk of exercising Miranda.

As noted by Rogers and Shuman (2005), even when long-term consequences are considered, they are often outweighed by immediate advantages. Current findings further support that conclusion. In the context of their own cases, temporal discounting was remarkably evident among those who waived Miranda compared to those who exercised Miranda. The case-specific reasons provided by defendants who exercised their right to silence were equally divided; half indicated their decisions were driven by immediate consequences and half informed their decision was based on a future outcome. The most salient finding indicative of temporal discounting is that all of the current defendants who waived their right to silence in their own cases reported their decision was based on anticipating some immediate outcome. Consistent with poor temporal perspective, a general conclusion of current findings is that in reality defendants' Miranda waiver decisions are driven by immediate advantages or disadvantages of available options.

#### Cognitive Abilities and Miranda-Related Impairments

The question of competence to waive Miranda rights is particularly relevant for defendants with impaired intellectual and achievement abilities. As specified by the U.S. Supreme Court in *Coyote v. U.S.* (1967), cognitive capacities such as education, intelligence, and literacy are relevant factors to consider when determining a defendant's capacity to provide a knowing and intelligent waiver of Miranda rights. Historically, courts have considered these factors only when severe deficits are apparent (Grisso, 2003). Many defendants have subclinical cognitive deficits that sufficiently interfere with a deeper comprehension of Miranda rights. Furthermore,

cognitive abilities may be incrementally impaired by the stressful circumstances of arrest, detainment, and interrogation.

The current research examined the importance of relevant cognitive abilities, including verbal abilities, reading comprehension, and listening comprehension, to each domain of Miranda-related abilities (i.e., understanding, appreciation, and reasoning). A general hypothesis was that while all cognitive variables would predict Miranda abilities, verbal abilities would emerge as the best predictor followed by reading and listening skills. Overall, that hypothesis was minimally supported. As expected based on previous research, all three cognitive abilities were significant predictors of defendants' performance on measures of Miranda understanding and appreciation. However, with few exceptions, none of the variables emerged as incrementally better predictors when compared systematically. Surprisingly, no significant correlational relationship was found between any cognitive variable and Miranda reasoning abilities. However, a subsequent analysis comparing defendants with adequate versus impaired Miranda reasoning evidenced significant differences in cognitive abilities between the two groups. Compared to defendants with adequate Miranda reasoning, those with impaired reasoning exhibited significantly lower verbal abilities ( $d = 0.62$ ), reading comprehension ( $d = 0.63$ ), and listening comprehension ( $d = 0.92$ ).

#### Limitations and Future Directions

The absence of bright-lined legal standards for what constitutes a reasoned choice in the context of Miranda waiver decisions poses a formidable challenge for research. The primary aims of the current study were (a) to examine how pretrial determine whether to waive or assert Miranda in their own cases and (b) to examine

various reasoning abilities outlined in legal decision making models to determine their applicability to defendants' actual Miranda waiver decisions. Current findings are informative as a first step in examining decisional competence in the context of Miranda waiver decisions; however, further research is warranted to expand on the broad conclusions proposed here. A plethora of factors not examined here may contribute to defendants' critical decision to waive or assert their rights to silence and legal counsel. Future research must widen the scope to focus on the potential impact of (a) situational factors, (b) interrogative techniques, (c) severe mental disorders, (d) substance intoxication or withdrawal, (e) attentional abilities, and (f) the nature of legal charges a defendant is faced with. Further investigation regarding certain details of criminal defendants' legal circumstances is essential to development of Miranda reasoning research. Particularly important, waiver decisions of defendants who confess when they are "caught red-handed" (e.g., possession of illicit substances, driving while intoxicated) likely differ from that of defendants who are unsure what evidence exists implementing their involvement in a crime. In that regard, Gudjonsson and Sigurdsson (1999) found perception of proof (e.g., belief a conviction is inevitable) was the strongest predictor for increasing the likelihood a confession will occur.

The current study examined how defendant's weigh risks and benefits of Miranda waiver decisions, and a general conclusion from current findings suggests many defendants cast aside rational reasoning and make seemingly irrational legal decisions. As previously noted, however, current findings are limited in that minimal variability was found among overall weight of consequences. That is, their overall appraisals regarding the best decision option in their circumstances typically did not reflect a strong

preference for either decision (i.e., waive or exercise). Instead, most defendants indicated only a slight preference for what they indicated was the best option. It is suspected legal decision making models may prove to be more applicable in circumstances in which defendants indicate one decision is heavily outweighed by another. The applicability of decisional competence models in the context of Miranda waiver decisions should ultimately be tested using a larger sample size to allow for more advanced statistical analyses such as Structured Equation Modeling (SEM).



APPENDIX A  
INFORMED CONSENT FORM

## University of North Texas

### **Title of Study: Miranda Waivers and the Validation of Miranda Measures**

**Principal Investigator** Richard Rogers

**Site:** Oklahoma Indigent Defense System (OIDS)

Before agreeing to this research, you must understand its methods. This form describes the methods, benefits, and risks. It says you have the right to stop at any time. It makes no promises about the results of the study.

### **Purpose of the Study**

Your part of the study looks at Miranda warnings used across the country. It looks at which statements are easy to understand. It looks at reading and listening. It looks at your verbal skills and any emotional problems. Each person is different. It looks at what things may affect your understanding of Miranda statements.

The study looks at how your understanding of Miranda can be affected. You will meet with your OIDS attorney and a researcher. Then, the researcher will ask you questions privately and give you scales to complete. It will take less than 4 hours. If you remain in detention, you can volunteer to repeat some of the measures; it will take about 1.5 hours.

### **Procedures**

17 measures are given. Most are brief and easy to complete. One measure looks at how well you listen and read. Two measures look at verbal abilities. Three look at emotional problems. One asks about your drug and alcohol use. Two measures look at attention. One measure looks at how easy you can be influenced. Five ask you to think about decisions. Four measures look at parts of Miranda. If you gave a statement to police, a questionnaire asks for your ideas about this.

### **Possible risks**

Most measures are used in clinical, school, and other settings. There are no known physical or emotional risks. Once in a while, subjects become slightly stressed. This is only for a short time. There is a slight chance data could be subpoenaed, but it will be anonymous.

You will **not** be asked about child abuse. If you give such information, the law requires the researcher to tell the authorities.

### **Benefits to Subjects and Others**

You may learn things about yourself from this research. The research may help the understanding of Miranda statements. If you have urgent mental needs or Miranda-related issues, you understand this will be communicated to your OIDS attorneys so that he or she can assist you. I understand that all of my test data will remain confidential.

### **Compensation for Participants**

Fifteen dollars will be put in your account after you have completed all the measures as compensation for your participation. If you are part of the follow-up, an additional \$10 will be put in your account.

### **Procedures for Keeping Research Records Private**

To protect privacy, only research numbers are used on the data. All data are locked in a research room. It will only be kept for the time of the study. A list of participants will be kept that is entirely separate from the research data and cannot be connected to the research data.

**Review for the Protection of Participants**

This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be reached at (940) 565-3940 with any questions regarding the rights of research subjects.

**Questions about the Study**

If you have any questions about the study, you may contact Dr. Richard Rogers at telephone number (940) 565-2671.

**Research Participant's Rights**

Your signature below indicates that you have read or have had read to you all of the above and that you confirm the following:

- A researcher has explained the study to you and answered all of your questions. You have been told the possible benefits and the potential risks and/or discomforts of the study.
- You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as a research participant and you voluntarily consent to participate in this study.
- You have been told you will receive a copy of this form.

---

Printed Name of Participant

---

Signature of Participant

---

Date

**For the Principal Investigator or Designee:**

I certify that I have reviewed the contents of this form with the subject signing above. I have explained the possible benefits and the potential risks and/or discomforts of the study. It is my opinion that the participant understood the explanation.

---

Signature of Principal Investigator or Designee

---

Date

APPENDIX B

DEMOGRAPHIC INFORMATION FORM

Research # \_\_\_\_\_

### Demographic Information Form

Current date and time:

Date and time of arrest:

Gender:

Date of birth (age):

Ethnicity:

1<sup>st</sup> language:

Highest grade completed:

Marital status:

Occupation:

Last year's income:

Current charges:

Total number of arrests:

Psychiatric hospitalizations:

## APPENDIX C

### TWO ORDERS OF ADMINISTRATION FOR RESEARCH MEASURES

Order 1

Consent  
Demographic Information Form  
SADS  
Miranda Warning Recall (time 1)  
MQ (time 1)  
MSS- Simplified Warning B  
WASI  
MRS  
FRI  
MSS-5  
WIAT  
CARE-Past Frequency  
MINI Plus (AD/HD scale)  
MINI Plus (APD scale)  
MSS-3  
MVS  
CFC  
MAQ  
VSAT  
MSS-1  
CARE-Expected Risks  
CARE-Expected Benefits  
SUI  
Cognistat  
GCQ-R  
MSS- Simplified Warning A  
Miranda Warning Recall (time 2)  
HMCT  
ATP  
MQ (time 2)

Order 2

Consent  
Demographic Information Form  
SADS  
Miranda Warning Recall (time 1)  
MQ (time 1)  
MSS- Simplified Warning A  
MRS  
FRI  
WASI  
MSS-5  
MINI Plus (AD/HD scale)  
MINI Plus (APD scale)  
CARE-Past Frequency  
WIAT  
MSS-3  
MAQ  
CFC  
VSAT  
MVS  
MSS-1  
CARE-Expected Risks  
CARE-Expected Benefits  
Cognistat  
GCQ-R  
SUI  
MSS- Simplified Warning B  
Miranda Warning Recall (time 2)  
ATP  
HMCT  
MQ (time 2)

## APPENDIX D

ADDITIONAL STANDARDIZED MEASURES ADMINISTERED IN CURRENT STUDY  
AS PART OF ONGOING PROGRAMMATIC RESEARCH FUNDED BY THE  
NATIONAL SCIENCE FOUNDATION



- Schedule of Affective Disorders and Schizophrenia-Change Version (SADS-C; Spitzer & Endicot, 1978)
- Wechsler Abbreviated Scale of Intelligence (WASI; Wechsler, 1999)
- Wechsler Individual Achievement Test 2<sup>nd</sup> Edition (WIAT-II; Wechsler, 2002)
- Slosson Oral Reading Test-Revised (SORT-R ;Nicholson, 2001)
- DICA Attention Defict Hyperactivity (DICS-ADHD; Reich, 2000)
- Neurobehavioral Cognitive Status Examination (Cognistat; Keiran, Mueller, Langston, & Van Dyke, 1987)
- Visual Search and Attention Test (VSAT; Trennery, Crosson, DeBoe, & Leber, 1990)
- Substance Use Inventory (SUI; Weiss, Hufford, Najavits, & Shaw, 1995)
- Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1998)
- Gudjonsson Suggestibility Scale (GSS; Gudjonsson, 1997)
- Gudjonsson compliance Scale (GCS; Gudjonsson, 1989)
- Gudjonsson Confession Questionnaire-Revised (GCQ-R; Gudjonsson & Sigurdsson, 1999)
- Atypical Presentation (ATP; Rogers, Tillbrook, & Sewell, 2004)
- Miranda Statements Scale MSS; Rogers, 2005)
- Miranda Vocabulary Scale (MVS; Rogers, 2006)
- Miranda Reasoning Scale (MRS; Rogers, 2006)
- Miranda Acquiescence Scale (MAQ; Rogers, 2006)

## APPENDIX E

### SUPPLEMENTAL ANALYSIS OF MIRANDA VOCABULARY FOR DEFENDANTS WHO WAIVED AND EXERCISED MIRANDA RIGHTS IN THEIR OWN CASES

Word	Exercised Miranda <sup>a</sup>			Waived Miranda <sup>b</sup>			<i>F</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	% Failed <sup>c</sup>	<i>M</i>	<i>SD</i>	% Failed <sup>c</sup>		
Coerced	.34	1.03	90.0	0.56	1.34	84.4	.69	.41
Coercion	.40	1.19	87.5	0.56	1.34	84.4	.30	.58
Demand	.77	1.32	72.9	0.94	1.41	68.8	.30	.58
Proceedings	1.23	1.45	68.8	1.22	1.52	68.8	.00	.96
Incriminate	1.02	1.16	68.8	1.66	1.83	53.1	2.66	.11
Right	1.87	1.58	52.1	1.19	1.51	71.9	3.69	.06
Prosecution	1.21	1.57	60.4	1.72	1.67	46.9	1.87	.18
Terminate	2.11	1.52	47.9	2.28	1.67	46.9	.23	.63
Threat	1.79	1.57	50.0	2.06	1.66	40.6	.56	.46
Waiver	2.30	1.50	31.3	1.75	1.60	46.9	2.39	.13
Represent	2.09	1.49	35.4	1.88	1.50	40.6	.38	.54
Willingly	2.38	1.85	37.5	2.63	1.76	34.4	.34	.56
Knowingly	2.17	1.37	29.2	1.78	1.54	46.9	1.39	.24
Advice	2.09	1.41	35.4	2.19	1.55	34.4	.09	.76
Afford	2.91	1.76	27.1	2.19	1.90	43.8	3.07	.08
Offense	2.55	1.87	35.4	2.78	1.74	28.1	.30	.59
Indigent	2.98	1.76	25.0	2.38	2.00	40.6	2.01	.16
Advise	2.53	1.60	31.3	2.53	1.67	28.1	.00	.99
Counsel	2.72	1.66	29.2	2.81	1.69	31.3	.05	.82
Statement	2.40	1.23	33.3	2.63	.91	18.8	.75	.39
Entitled	2.66	1.65	27.1	2.72	1.55	9.4	.03	.87
Voluntarily	2.98	1.69	22.9	2.97	1.75	25.0	.00	.98
Waive	2.64	1.47	22.9	2.50	1.52	25.0	.16	.69
Appoint	2.43	1.32	22.9	2.66	1.38	21.9	.56	.46
Intelligently	2.43	1.30	20.8	2.41	1.46	25.0	.00	.95
Questioning	2.83	1.55	20.8	2.81	1.58	21.9	.00	.96
Suspect	2.83	1.48	20.8	2.91	1.25	18.8	.06	.81
Consent	2.96	1.53	20.8	3.06	1.41	15.6	.10	.76
Consult	2.57	1.33	20.8	2.72	1.25	15.6	.24	.63
Crime	3.02	1.47	18.8	3.09	1.42	15.6	.05	.83
Evidence	2.60	1.33	18.8	2.68	1.13	12.5	.42	.52
Interrogation	3.43	1.35	12.5	3.44	1.34	12.5	.00	.97
Accused	3.00	0.75	6.3	2.66	1.26	21.9	2.30	.13
Lawyer	3.17	1.20	10.4	3.16	1.30	12.5	.00	.96
Attorney	3.26	1.22	10.4	3.41	1.19	9.4	.30	.59
Silent	3.72	0.68	2.1	3.78	0.61	3.1	.15	.70

<sup>a</sup>60.0% (*n* = 48) Exercised Miranda rights in their own cases.

<sup>b</sup>40.0% (*n* = 32) Waived Miranda rights in their own cases.

<sup>c</sup>Percentage of defendants scoring < 3 (i.e., less than *partial understanding*).

## APPENDIX F

### SUPPLEMENTAL ANALYSIS OF MIRANDA QUIZ SCALE SCORES AND TOTAL SCORE FOR DEFENDANTS WHO WAIVED AND EXERCISED MIRANDA RIGHTS IN THEIR OWN CASES

Miranda Domain	Exercised Miranda		Waived Miranda		<i>F</i>	<i>p</i>
	<i>M % Correct</i>	<i>SD</i>	<i>M % Correct</i>	<i>SD</i>		
Right to Silence	77.1	25.87	74.0	27.74	.26	.61
Risks of Talking	77.6	20.78	81.3	19.05	.63	.43
Right to Counsel	71.3	18.41	73.1	19.42	.19	.66
Free Legal Services	81.3	20.52	77.1	27.35	.61	.44
Continuing Legal Rights	69.4	27.36	67.7	29.92	.07	.79
Police Practices	47.9	33.62	45.8	33.60	.07	.79
Miranda Misconceptions	54.7	23.44	57.8	20.52	.38	.54
Miranda Quiz Total	68.5	10.71	68.6	8.20	.00	.96

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