Effectiveness of the Miranda Acquiescence Questionnaire for Investigating Impaired Miranda Reasoning

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The capacity of arrestees to comprehend their Miranda rights adequately and to waive them intelligently remains largely unexamined by most defense attorneys and forensic practitioners. Although much is now known about Miranda comprehension, only recently has forensic research emerged on Miranda reasoning. This archival study utilizes an extensive dataset of 847 pretrial detainees who were administered the Standardized Assessment of Miranda Abilities. This study focuses on how forensic practitioners can evaluate Miranda misperceptions that may have contributed to highly consequential decisions to cooperate with law enforcement without seeking legal counsel. Specific items from the Miranda Acquiescence Questionnaire of the Standardized Assessment of Miranda Abilities clearly identified detainees with impaired Miranda reasoning. Two important patterns of Miranda misperceptions were observed: adversarial perspective on arrest and trusting law enforcement. For instance, more than 20 percent of detainees with impaired reasoning wrongly believed that cooperating with police could only have positive outcomes. Even more troubling, more than one fourth of detainees erroneously believed that they must always comply with police requests, which obviously could entail self-incrimination. These findings are then placed in a broader context when examining the professional roles of forensic practitioners in recognizing, understanding, and evaluating for impaired Miranda abilities.

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In the criminal forensic domain, impaired Miranda capacities appear to be highly prominent among psycholegal concerns, yet they are substantially under-evaluated and under-researched in forensic psychiatry. Using conservative parameters, Rogers1 estimated that about 300,000 detainees annually fail to recall even 50 percent of their Miranda warnings, despite these being delivered one component at a time. Such basic failures raise fundamental questions about whether these detainees could “knowingly and intelligently waive these rights” as required by Miranda v. Arizona (Ref. 2, p 479). To make matters worse, it is estimated that half of all detainees with serious mental disorders or intellectual disabilities will fail at Miranda recall.3 With more than 10 million arrests occurring annually in the United States, including 518,617 violent offenses in 2017,4 the potential toll of invalid Miranda waivers continues to be alarmingly high.

A remarkable disparity is observed when comparing the prevalence of Miranda concerns to the attention paid to them in forensic practice and research. Although no survey data were found for forensic psychiatrists, a study of clinical psychologists who performed forensic evaluations found that 76 percent had never conducted Miranda evaluations; of those

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who did participate, the number of evaluations was minimal, with a median of 2.5 per year.\textsuperscript{5} Scholarship has also lagged behind Miranda-relevant case law developments (see Legal Overview below). A systematic search (i.e., MEDLINE and PsychINFO) revealed only 19 contributions regarding Miranda since 1970, versus 415 articles on insanity in the Journal of the American Academy of Psychiatry and the Law during the same time period.

**Legal Overview**

Chief Justice Warren wrote the majority opinion for *Miranda v. Arizona*, which acknowledged that “custodial interrogation exacts a heavy toll on individual liberty and trades on the weakness of individuals” (Ref. 2, p 455). To protect the Fifth Amendment right against self-incrimination, the Supreme Court of the United States required that the following information be conveyed to detainees:

> [U]nless other fully effective means are adopted . . . [d]etainees must be warned prior to any questioning that he has the right to remain silent, that anything he says can be used against him in a court of law, 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. Opportunity to exercise these rights must be afforded to him throughout the interrogation (Ref. 2, pp 478–79).

*Miranda* warnings include five core components.\textsuperscript{6} Although its purpose is not explicitly stated, the right to silence is intended to communicate a constitutional protection against the use of statements as evidence in subsequent proceedings. It also included an admonition regarding the perils of talking. *Miranda* warnings further communicate the right to counsel and provide free legal services for economically disadvantaged detainees. In this regard, the Court observed the following: “The 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” (Ref. 2, p 473). Finally, the Court recognized the need to stress the ongoing nature of these protections, meaning that counsel can be requested at “any stage in the process” (Ref. 2, pp 444–45).

*Miranda* represents one of the most impactful and lasting appellate decisions in American jurisprudence. What limits have been placed on law enforcement in securing incriminating evidence? In *Brown v. Walker* (1896), the Supreme Court had cited with approval a longstanding prejudice, predating the Constitution itself, against interrogation techniques that tended to “press,” “browbeat,” or “entrap” (Ref. 7, p 596) custodial arrestees; in *Blackburn v. Alabama* (1960), the Court had recognized explicitly that “coercion can be mental as well as physical” (Ref. 8, p 206). Just two years prior to *Miranda*, the Court had concluded in *Escobedo v. Illinois* (1964) that persons who have “requested and been denied” consultation with counsel and have not been advised of their “absolute constitutional right to remain silent” could prevent ensuing statements from being admitted at trial (Ref. 9, pp 490–91).

The *Miranda* Court eventually had to decide whether the language of that decision must be taken literally. In *California v. Prysock* (1981),\textsuperscript{10} for example, the Court reached back to its earlier observation that a “fully effective equivalent” (Ref. 2, p 476) to its earlier warning examples would be sufficient, and noted further that *Miranda* itself indicated that “no talismanic incantation was required to satisfy its strictures” (Ref. 10, p 359). What the *Miranda* Court did not appear to have predicted was the subsequent explosion of appellate litigation concerning the ability of arrestees to understand their constitutionally enshrined rights.

Perhaps the most obvious context for appellate exploration of *Miranda* understanding and reasoning was destined to be that of juvenile matters. In *Fare v. Michael C.*, the Supreme Court ruled in favor of a “totality of the circumstances” standard that supported the validity of a *Miranda* waiver where the 16-year-old juvenile arrestee had “considerable experience with the police” and a “record of several arrests” (Ref. 11, p 72). More recently, the Court determined in *J.D.B. v. North Carolina* that a 13-year-old child who never received a *Miranda* warning and was told “that he could refuse to answer the investigator’s questions” (Ref. 12, p 267) only after he confessed was entitled to a presumption of heightened vulnerability to custodial interrogation.

The Court’s perspective on how persons “knowingly and intelligently” waive their rights might be “inferred from the actions and the words of the person being interrogated” (Ref. 13, p 373). The comparatively recent case of *Berghuis v. Thompkins* (2010)\textsuperscript{14} found the Court willing even to find a suspect’s silence, despite the existence of a right to silence, to serve as evidence of the ultimate validity of a *Miranda* waiver. Here, the Court relied on *Davis v.*
The ability to recall *Miranda* advisements varies by the recentness of the arrest as well as by the mode of communication. Within 24 hours of arrest, 22.8 percent of detainees failed to remember even 50 percent of an orally administered *Miranda* warning when asked for immediate recall. In sharp contrast, only 8.3 percent of detainees who had been held longer failed to recall 50 percent or more of written warnings.1 As a critically important caution, oral *Miranda* warnings were provided one statement at a time, which maximizes immediate recall. When *Miranda* warnings are presented without interruption, *Miranda* comprehension sinks precipitously when used with legally involved juveniles23,24 and even college undergraduates.25,26 In these four studies, failure rates (i.e., less than 50% recall) represented the norm when detainees were asked to recall the total *Miranda* warning.

Factors contributing to poor *Miranda* comprehension have been clearly established. First and foremost, the complexity of *Miranda* warnings extends beyond their length and reading level. Obvious barriers to comprehension include difficult vocabulary, infrequently used words, legalese, and homonyms, especially for oral advisements.27 These problems may be severely exacerbated by rapid-fire delivery of oral advisements.28

*Miranda* evaluations should routinely address the clinical status of referred examinees. The potential presence of psychotic and other symptoms of serious mental disorders should be considered on a case-by-case basis. In general, these symptoms tend not to play a major role in *Miranda* comprehension unless they are sufficiently severe to impair day-to-day functioning (Ref. 6, Appendix E). Low verbal abilities, by contrast, are far more likely to play a central role in failed *Miranda* comprehension. Looking at verbal intelligence, 79.4 percent of individuals with scores between 70 and 79 have impaired *Miranda* comprehension; this percentage jumped to 100 percent when the verbal intelligence dropped below 70 (Ref. 6, Appendix D). This same analysis established that very low reading or listening comprehension most often signaled failed *Miranda* comprehension.

Grisso pioneered the systematic evaluation of *Miranda* reasoning through his development of the Waiver Expectancy Interview (Ref. 29, Appendix E). It provided a valuable model for examining *Miranda* reasoning among legally involved juveniles. Using three vignettes, these youth were questioned about
different Miranda-relevant options and their likely outcomes (e.g., the value of obtaining legal counsel). To be comprehensive, their responses were rated on two parameters: positive and negative consequences, and short-term and long-term consequences. Even when faced with a violent felony charge, innocent juvenile suspects rarely opted for a lawyer; alarmingly, less than half believed that counsel might exercise a positive effect on their felony case (Ref. 29, Chapter 7). More recent research on the Waiver Expectancy Interview found that, when legally involved juveniles saw no positive reasons to remain silent or request counsel, their likelihood of confessing without the benefit of counsel increased by more than 400 percent.30

Rogers and his colleagues systematically investigated common Miranda misconceptions through the development of the Miranda Quiz31 and, subsequently, the Juvenile Miranda Quiz.32 Miranda misconceptions are not limited to detainees; they are also found with undergraduates and with a broader cross-section of the community (i.e., jury pools). Examples in which more than 25 percent of respondents are wrong include beliefs that remaining silent is tantamount to self-incrimination, off-the-record comments are protected, and asking for counsel does not stop questioning prior to the arrival of counsel.33,34 In general, pretrial detainees tended to have higher rates of Miranda misconceptions than nonoffender groups. Other important misconceptions for detainees involved protection against self-incrimination when Miranda waivers remain unsigned or in the event of police deception. Regarding the latter, the majority wrongly believed that police were bound by probity not to accuse arrestees of fictitious crimes (55.4%) or to deceive them about an eyewitness identification (64.2%). Overall, the ability to render an intelligent waiver of Miranda rights may substantially be compromised by such fundamental misconceptions.

Research involving the Juvenile Miranda Quiz has expanded the coverage of Miranda misconceptions with an emphasis on professional role expectations (i.e., advocate or adversary) concerning law enforcement and defense counsel.1,24 Legally involved juveniles often misunderstood these professional roles. For instance, 63.8 percent believed court-appointed counsel must divulge everything to the judge. In addition, 50.7 percent inaccurately believed law enforcement wanted to help rather than convict them, whereas 37.7 percent erroneously reasoned they should talk to police because of their positions of official authority.35

The Miranda Acquiescence Questionnaire

Forensic practitioners have two valuable tools, specifically forensic assessment instruments for directly assessing impaired Miranda abilities: Miranda Rights Comprehension Instruments36 and the Standardized Assessment of Miranda Abilities (SAMA).20 These forensic assessment instruments are intended for doctoral-level forensic practitioners; the SAMA explicitly states that training qualifications encompass “doctoral-level forensic psychologists and psychiatrists” (Ref. 20, p 16).

The Miranda Acquiescence Questionnaire (MAQ) was originally validated for the purpose of identifying detainees who engage in acquiescence (i.e., yea-saying) or disacquiescence (i.e., nay-saying).37 MAQ item pairs are worded in discrepant if not contradictory directions, such as whether staying silent either protects or incriminates detainees. Responding in the same direction to items with dissimilar content provides solid evidence of acquiescence (i.e., true to both items) or disacquiescence (i.e., false to both items). Beyond response styles, the MAQ can also be utilized to address wrong beliefs that are relevant to Miranda reasoning. For instance, responding “true” to an item stating that silence is incriminating evidence and “false” to an item stating that silence is a protected right provides a multi-faceted understanding for these related and important Miranda misperceptions. Rogers and Drogin38 recently recommended that the MAQ be utilized in a case-specific manner to evaluate how serious misconceptions may potentially affect a particular arrestee’s waiver decision, although no criterion-based conclusions can be offered in the absence of empirical research.

The primary purpose of our study was to examine individual and aggregate MAQ scores as they relate to Miranda reasoning. Following the design of Sharf and colleagues,35 the study utilized a bottom-up approach (i.e., building from single items to aggregate scores). It systematically examined whether individual MAQ items could predict impaired Miranda reasoning as operationalized with the Miranda Reasoning Measure (MRM).39
Methods

This archival investigation provided new analyses on an extensive dataset involving 847 pretrial detainees from four jail facilities in Texas (Grayson County Jail) and Oklahoma (Cherokee County Jail, Creek County Detention Center, and Okmulgee County Jail). The data were gathered as part of multiple National Science Foundation supported investigations conducted over a five-year period. All data were collected with the approval of the Institutional Review Board of the University of North Texas.

Measures

The MAQ consists of 64 true/false items related to Miranda and law enforcement in the context of being arrested.37 Its items are scored as correct or incorrect. Developed specifically for use with detainees who may have limited literacy, the MAQ consists of brief sentences averaging less than 10 words with purposefully low reading grade level of 3.7. Regarding validity, even moderate levels of MAQ acquiescence results in more impaired Miranda abilities.20

The Miranda Quiz consists of 25 true/false items that assess misconceptions related to Miranda components and police practices.31 For Miranda evaluations, the Primary Total is used, which is composed of the 15 items with the best validity.20 The Miranda Quiz has demonstrated a high level of interrater reliability for Miranda Quiz scoring (intraclass correlation coefficient (ICC) = .97). Its validity was established via independent agreement among Miranda experts regarding its content (ICC = .96) and its ability to discriminate between failed and likely adequate Miranda reasoning (Cohen’s d = .70).20

The Miranda Reasoning Measure (MRM) is a practitioner-administered questionnaire for assessing detainees’ positive and negative reasons for deciding whether to exercise or waive their Miranda rights.39 Responses are rated on a four-point scale: 0 for impaired reasoning, 1 for questionable reasoning, 2 for adequate reasoning limited to the immediate circumstances, and 3 for adequate reasoning taking into account long-term consequences. Two aggregate scores are generated, MRM-Exercise and MRM-Waive, both of which have excellent interrater reliability (ICCs > .90) between two independent evaluators. Comparisons of failed versus adequate MRM reasoning produced expected differences for intelligence and Miranda vocabulary.20

As part of the SAMA, the Miranda Vocabulary Scale20 was used to assess an examinee’s knowledge of 36 Miranda-relevant words that assist in differentiating between impaired and adequate Miranda abilities. The Miranda Vocabulary Scale was designed to assess the meaning of words within a legal context from completely incorrect to a correct and relevant definition. The Miranda Vocabulary Scale has demonstrated high interrater reliability (ICC = .98) and validity than other Miranda measures.20

The Wechsler Individual Achievement Test, Third Edition, is a well-validated test of achievement with grade-level norms. For our investigation, Listening Comprehension and Reading Comprehension were individually administered. These two subtests demonstrate high internal reliability (ICC = .84 and .88, respectively) and validity.40

The Wechsler Abbreviated Scale of Intelligence II is a concise measure of intelligence that assesses verbal (Verbal Comprehension Index) and nonverbal (Perceptual Reasoning Index) abilities. This scale has excellent internal reliability (ICC = .96) and validity.41

Procedures

Rogers and colleagues20 utilized the MRM to operationalize Miranda reasoning into failed and likely intact groups regarding the waiver decision. For the failed Miranda reasoning group, the decision about their own Miranda waiver had to be compromised (e.g., psychotic or self-defeating thinking) or premised on a serious factual error (e.g., indigent suspects not receiving free legal services). For the likely intact reasoning group, the thinking had to be rational about their Miranda waiver, with at least one reason to exercise their rights that considered long-term consequences.

Statistical Analysis

MAQ items were selected utilizing a bottom-up approach to identify those items that significantly differentiated between the failed and likely intact Miranda reasoning groups. Given the number of comparisons, only p values ≤ .01 were considered significant. In addition, nonsignificant trends were also considered (i.e., p ≤ .10). To ensure clinical relevance, individual items were only retained if their effect sizes had a logit of d ≥ .30. For examination of group differences (i.e., impaired versus likely adequate Miranda reasoning), the fo-
cus was on at least medium effect sizes (logit of $d \geq .50$).

**Results**

The dataset consisted of 847 detainees ranging in age from 17 to 80 years (mean 32.61 [SD 10.86], with 635 (75.0 percent) identified as male offenders. Reflecting self-identified ethnicity, the dataset was composed of 52.7 percent European American, 17.4 percent African American, 17.1 percent Native American, and 6.0 percent Hispanic American detainees; the remaining 6.8 percent of detainees self-identified as Multiracial, Asian American, or Other. The dataset was composed of 57.0 percent single, 22.6 percent married, 19.0 percent divorced, and 1.4 percent widowed detainees. Most were reportedly employed (79.5%) at the time of their arrest. The average full-scale IQ was found to be 91.35 (SD 12.91); the reported education level averaged close to high school completion (mean 11.71 years [SD 1.96]). As expected for an adult detainee dataset, the previous arrests averaged at 11.97; a high variability was observed due to several outliers (SD 25.08). In addition, 16.6 percent disclosed a past history of psychiatric hospitalizations.

As summarized in Table 1, the Exercised and Waived groups were remarkably similar in age, number of arrests, and number of psychiatric hospitalizations. Moreover, their overall intelligence, verbal abilities, and achievement levels did not differentiate with respect to crucial exercise/waive decisions. The nonsignificant trend appears counterintuitive, with the Waived group scoring slightly higher ($d = .16$) on reading comprehension than their Exercised group counterparts. With a modest difference of only about one-half grade, a further examination of *Miranda* misperceptions was conducted next.

**MAQ Misperceptions and Miranda Reasoning**

Twelve of the 60 MAQ misconceptions demonstrated substantial effect sizes that often far exceeded the rigorous item-level threshold (logit $d \geq .30$). As summarized in Table 2, two general themes emerged from this study, each with six items: adversarial perspective on arrest, and trusting law enforcement. The average effect sizes for aggregate scores were medium at the item level, i.e., .56 for adversarial perspective on arrest and .61 for trusting law enforcement. For adversarial perspective on arrest, almost half of the impaired group (48.6%) did not rule out confessing to law enforcement, and one fourth did not believe police commonly used pressure tactics. For trusting law enforcement, the impaired group was much more likely to see law enforcement serving in a beneficent role; the strongest difference ($d = 1.21$) was observed for the absence of pressure by police to confess. Two additional trusting law enforcement items (i.e., #23 and #30) presented law enforcement in a very positive light, producing medium effect sizes ($d = .68$ and .63, respectively).

**MAQ Misperceptions and Cognitive Abilities**

The next step addressed how differences in cognitive abilities might be reflected in the aggregate scores for adversarial perspective on arrest and trusting law enforcement. As summarized in Table 3, overall intelligence produced medium differences for both an adversarial perspective on arrest ($d = .59$) and trusting law enforcement ($d = .79$), with verbal abilities remaining especially salient for the latter ($d = .66$).
The average IQ for the impaired group (mean 71.86) was close to the upper threshold for mild intellectual disability. For achievement, much more modest results were produced. The impaired group, which averaged about second grade on both reading and listening comprehension, evidenced relatively modest effect sizes on the adversarial perspective on arrest aggregate scores but substantial differences for trusting law enforcement. Our first consideration involved possible differences in reading grade level. Counterintuitively, however, the adversarial perspective on arrest required a slightly higher reading grade (Flesch-Kincaid of 5.0) than trusting law enforcement (Flesch-Kincaid of 3.8).

### MAQ Misperceptions and Miranda Abilities

As displayed in Table 4, trust in law enforcement overshadowed adversarial perspective on arrest in terms of large effect sizes on measure of *Miranda* comprehension, including *Miranda* vocabulary (1.04 versus .67) and especially free *Miranda* recall (1.12 versus .43). Regarding the latter, the likely intact group recalled an average 1.5 details (42.1%) more than the failed *Miranda* reasoning group. Consistent with previous re-

<table>
<thead>
<tr>
<th>MAQ Scale</th>
<th>Item</th>
<th>Misbelief (Inaccurate Response)</th>
<th>% of Errors</th>
<th>χ²</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adversarial perspective on arrest</td>
<td>9. You can disagree with the police when they are wrong. (F)</td>
<td>16.9</td>
<td>6.5</td>
<td>7.86</td>
<td>.02</td>
<td>.60</td>
</tr>
<tr>
<td></td>
<td>20. I should talk to a lawyer before I talk to the police. (F)</td>
<td>8.5</td>
<td>3.2</td>
<td>6.03</td>
<td>.05</td>
<td>.56</td>
</tr>
<tr>
<td></td>
<td>28. A person should never admit to a crime. (F)</td>
<td>48.6</td>
<td>33.5</td>
<td>7.27</td>
<td>.03</td>
<td>.35</td>
</tr>
<tr>
<td></td>
<td>31. You should not answer any questions or sign anything until you have a lawyer. (F)</td>
<td>9.9</td>
<td>2.6</td>
<td>7.32</td>
<td>.03</td>
<td>.79</td>
</tr>
<tr>
<td></td>
<td>37. Staying silent is the same as saying I’m guilty. (T)</td>
<td>12.1</td>
<td>3.2</td>
<td>9.13</td>
<td>.01</td>
<td>.78</td>
</tr>
<tr>
<td></td>
<td>57. The police usually pressure a person to confess. (F)</td>
<td>25.0</td>
<td>16.1</td>
<td>4.67</td>
<td>.10</td>
<td>.30</td>
</tr>
<tr>
<td>Trusting law enforcement</td>
<td>7. Telling the police what you know can only help you. (T)</td>
<td>22.0</td>
<td>11.7</td>
<td>10.13</td>
<td>.01</td>
<td>.42</td>
</tr>
<tr>
<td></td>
<td>15. If the police promise me help, then it’s okay to talk. (T)</td>
<td>6.3</td>
<td>3.2</td>
<td>8.56</td>
<td>.01</td>
<td>.39</td>
</tr>
<tr>
<td></td>
<td>23. During an interrogation the police have your best interests in mind. (T)</td>
<td>19.1</td>
<td>6.5</td>
<td>11.67</td>
<td>.01</td>
<td>.68</td>
</tr>
<tr>
<td></td>
<td>29. The police will not pressure a person into confessing. (T)</td>
<td>10.6</td>
<td>1.3</td>
<td>12.21</td>
<td>&lt;.01</td>
<td>1.21</td>
</tr>
<tr>
<td></td>
<td>30. Talking to the police is a good idea. (T)</td>
<td>27.0</td>
<td>10.5</td>
<td>13.40</td>
<td>&lt;.01</td>
<td>.63</td>
</tr>
<tr>
<td></td>
<td>36. A person should always do what the police say. (T)</td>
<td>37.6</td>
<td>25.3</td>
<td>5.45</td>
<td>.07</td>
<td>.32</td>
</tr>
</tbody>
</table>

The MRM was used for *Miranda* reasoning which was operationalized as impaired (≥ 1 item scored as 0; n = 255) and likely intact (all items scored ≥ 2 plus ≥ 1 “exercise” item scored = 3; n = 195). To facilitate interpretation, statistically significant differences and medium to large effect sizes are in bold.

MAQ, Miranda Acquiescence Questionnaire; MRM, Miranda Reasoning Measure.

### Table 3 MAQ Differences on APA and TLE Scores between Impaired and Intact Cognitive Abilities

<table>
<thead>
<tr>
<th>Clinical Variable</th>
<th>MAQ (n for Impaired, Likely Intact)</th>
<th>Impaired Mean (SD)</th>
<th>Likely Intact Mean (SD)</th>
<th>F</th>
<th>P</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-scale IQ</td>
<td>APA (67, 330)</td>
<td>4.55 (1.35)</td>
<td>5.13 (0.88)</td>
<td>19.45</td>
<td>&lt;.001</td>
<td>.59</td>
</tr>
<tr>
<td></td>
<td>TLE (68, 335)</td>
<td>4.29 (1.73)</td>
<td>5.23 (1.06)</td>
<td>34.92</td>
<td>&lt;.001</td>
<td>.79</td>
</tr>
<tr>
<td>Verbal Comprehension Index</td>
<td>APA (97, 269)</td>
<td>4.76 (1.27)</td>
<td>5.14 (0.87)</td>
<td>10.43</td>
<td>.001</td>
<td>.38</td>
</tr>
<tr>
<td></td>
<td>TLE (94, 273)</td>
<td>4.52 (1.66)</td>
<td>5.30 (0.97)</td>
<td>30.59</td>
<td>.001</td>
<td>.66</td>
</tr>
<tr>
<td>Reading grade</td>
<td>APA (144, 197)</td>
<td>4.91 (1.19)</td>
<td>5.07 (0.86)</td>
<td>2.86</td>
<td>.06</td>
<td>.19</td>
</tr>
<tr>
<td></td>
<td>TLE (144, 197)</td>
<td>4.56 (1.60)</td>
<td>5.28 (1.05)</td>
<td>15.13</td>
<td>&lt;.001</td>
<td>.43</td>
</tr>
<tr>
<td>Listening grade</td>
<td>APA (137, 198)</td>
<td>4.84 (1.16)</td>
<td>5.06 (0.96)</td>
<td>6.37</td>
<td>.002</td>
<td>.28</td>
</tr>
<tr>
<td></td>
<td>TLE (136, 197)</td>
<td>4.42 (1.58)</td>
<td>5.30 (1.00)</td>
<td>23.48</td>
<td>&lt;.001</td>
<td>.54</td>
</tr>
</tbody>
</table>

Differences for the impaired and likely intact groups are presented as mean (SD). For intelligence, full-scale IQ score of 85 was used with a 95% CI (± 5 points): < 80 were categorized as impaired and ≥ 90 as intact. The same criterion was employed with the Verbal Comprehension Index. Given the low grade level for the MAQ, tertiles (highest and lowest thirds) were used. To facilitate interpretation, statistically significant differences and medium effect sizes are in bold.

a Means for impaired cognitive abilities were 71.86 (full-scale IQ), 71.24 (Verbal Comprehension Index), 2.11 (reading grade), and 2.03 (listening grade).
b Means for intact cognitive abilities were 100.74 (full-scale IQ), 99.80 (Verbal Comprehension Index), 10.97 (reading grade), and 10.70 (listening grade).

APA, adversarial perspective on arrest; MAQ, Miranda Acquiescence Questionnaire; TLE, trusting law enforcement.
search, both groups failed to recall even half of the details included in the Miranda warnings.

Miranda reasoning is much more complex than Miranda comprehension, with emotions and situational stressors sometimes overriding rational thinking. Regarding general misconceptions on the Miranda Quiz, only the trust in law enforcement was significant with a moderate effect size of .47. Despite both MRM-Waive and MRM-Exercise being statistically significant, MRM-Exercise evidenced a stronger effect size for both aggregate scales, which differentiated between failed and likely intact Miranda reasoning.

Discussion

Our study contributes to the accumulated evidence on legal literacy with respect to Miranda reasoning. Detainees with impaired Miranda reasoning possessed more fundamental misbeliefs about law enforcement and the nature of the interrogation. Detainees in this impaired group were much more willing to put their trust in law enforcement than were their likely intact counterparts. For the impaired group, more than 20 percent naively believed that talking to the police is a good idea that can only lead to positive outcomes. In contrast, false assurances that investigating officers would not use pressure tactics were almost never observed with the likely intact group. Finally, it is particularly troubling that more than one fourth of both groups mistakenly believed they should always comply with police requests, which presumably includes agreeing to waive their rights and subsequently responding to all questions by investigating officers. To remain truly compliant, these detainees would then obligingly obey any requests to disclose self-incriminating information in full detail. Although the majority of impaired detainees were not affected by these trust in law enforcement misbeliefs, such lapses in reasoning should nonetheless be systematically investigated regarding potentially devastating effects on the intelligent prong of Miranda waivers.

An appreciation of the adversarial context of police questioning remains essential to any intelligent waiver of Miranda rights. Professionals and members of the public may openly wonder what it is about being physically apprehended, handcuffed, contained in a patrol car, and then locked into a holding cell that would lead arrestees to conclude that a non-adversarial relationship could possibly exist. The current data do not address this disturbing enigma. As a pivotal matter, the belief that silence constitutes self-incrimination may override all other considerations in deciding to relinquish the right to silence. Finally, the item about never confessing (#48) would have benefitted from being framed more specifically by adding the prepositional phrase "without the benefit of counsel." In the context of police questioning, it is difficult, if not impossible, to discern any long-term advantage to providing the police with incriminating evidence they may not have discovered on their own. As the case progresses, however, a plea bargain (including an admission to one or more offenses) may sometimes be viewed as a favorable outcome.

Table 4 MAQ Differences on APA and TLE Scores between Impaired and Likely Intact Miranda Abilities

<table>
<thead>
<tr>
<th>Miranda Abilities</th>
<th>MAQ (n for Impaired, Likely Intact)</th>
<th>Impaired</th>
<th>Likely Intact</th>
<th>F</th>
<th>P</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miranda Vocabulary Scale</td>
<td>APA (43, 264)</td>
<td>4.51 (1.45)</td>
<td>5.16 (0.87)</td>
<td>16.57</td>
<td>&lt; .001</td>
<td>.67</td>
</tr>
<tr>
<td></td>
<td>TLE (42, 266)</td>
<td>4.14 (1.63)</td>
<td>5.29 (1.00)</td>
<td>39.04</td>
<td>&lt; .001</td>
<td>1.04</td>
</tr>
<tr>
<td>Miranda Comprehension Template</td>
<td>APA (18, 145)</td>
<td>4.61 (1.24)</td>
<td>5.05 (0.97)</td>
<td>3.02</td>
<td>.08</td>
<td>.43</td>
</tr>
<tr>
<td></td>
<td>TLE (18, 148)</td>
<td>3.56 (1.82)</td>
<td>5.06 (1.27)</td>
<td>20.22</td>
<td>&lt; .001</td>
<td>1.12</td>
</tr>
<tr>
<td>Miranda Quiz Primary Total</td>
<td>APA (71, 102)</td>
<td>4.82 (1.20)</td>
<td>5.15 (0.94)</td>
<td>2.77</td>
<td>.07</td>
<td>.26</td>
</tr>
<tr>
<td></td>
<td>TLE (72, 99)</td>
<td>4.51 (1.47)</td>
<td>5.22 (1.06)</td>
<td>9.13</td>
<td>&lt; .001</td>
<td>.47</td>
</tr>
<tr>
<td>MRM-Waive</td>
<td>APA (100, 279)</td>
<td>4.85 (1.04)</td>
<td>5.24 (0.85)</td>
<td>10.41</td>
<td>&lt; .001</td>
<td>.38</td>
</tr>
<tr>
<td></td>
<td>TLE (102, 275)</td>
<td>4.86 (1.26)</td>
<td>5.24 (1.08)</td>
<td>8.71</td>
<td>&lt; .001</td>
<td>.34</td>
</tr>
<tr>
<td>MRM-Exercise</td>
<td>APA (47, 266)</td>
<td>4.55 (1.16)</td>
<td>5.23 (0.89)</td>
<td>11.64</td>
<td>&lt; .001</td>
<td>.54</td>
</tr>
<tr>
<td></td>
<td>TLE (49, 263)</td>
<td>4.53 (1.43)</td>
<td>5.26 (1.00)</td>
<td>10.37</td>
<td>&lt; .001</td>
<td>.50</td>
</tr>
</tbody>
</table>

Differences for the impaired and likely intact groups are presented as mean (SD). The Miranda Vocabulary Scale compared failed (>50% of items scored 0 or 1) versus likely adequate (≥20% of items scored 0 or 1, plus average item score ≥3). In addition, the Miranda Comprehension Template was operationalized as failed (<50%) versus likely adequate (≥70%) comprehension. For the Miranda Quiz Primary Total, tertiles were used with failing being set at Miranda Quiz < 11 (i.e., ≥26.7% of Miranda misconceptions) and likely adequate at Miranda Quiz > 12 (i.e., ≤20.0% of Miranda misconceptions). To facilitate interpretation, statistically significant differences and medium to large effect sizes are in bold.

APA, adversarial perspective on arrest; MAQ, Miranda Acquiescence Questionnaire; MRM, Miranda Reasoning Measure; TLE, trusting law enforcement.
Miranda Consultations in Forensic Practice

Forensic psychiatrists and psychologists are commonly asked to address standard pretrial referrals, such as competency to stand trial, but they rarely are referred cases regarding compromised Miranda comprehension and invalid Miranda waivers. This general oversight has been described as the “professional neglect hypothesis” because many well-intentioned defense attorneys and seasoned forensic practitioners simply do not consider Miranda deficits. Using very conservative estimates, it is likely that more than 99 percent of pretrial detainees with significant Miranda concerns are not referred for Miranda evaluations. Although defense attorneys, the primary source of such referrals, may have strategic reasons for not doing so (e.g., other compelling evidence), our concern is much more fundamental. In most cases, we surmise that the question is simply not raised by often-overworked defense counsel, their investigators, or forensic practitioners. In our view, forensic practitioners may play one of two valuable roles: informing referral sources or serving as evaluators on Miranda cases.

Understandably, many forensic practitioners, busy in their own successful practices, may choose not to specialize further by engaging in Miranda evaluations. Nonetheless, with a growing awareness of Miranda concerns that threaten Fifth Amendment rights against self-incrimination, forensic practitioners may wish to have a brief, informal communication with referring counsel. This role is characterized as “informing referral sources.” It would be prudent to obtain general permission so that counsel is not suddenly surprised by an unexpected and possibly unwanted phone call. Consider the following question being posed to counsel prior to evaluating the examinee: “If other major concerns are raised during my forensic evaluation, would you like me to share them with you informally?” Two points need to be emphasized. First, the term “referring counsel” was chosen intentionally because attorneys on either side of the bar may want to be alerted to possible complications. Second, informal verbal communications avoid establishing a written record that might be discoverable and need to be produced. A strong argument may be presented for this proactive role on the basis of procedural and substantive justice for all custodial suspects, especially given the far-ranging consequences of self-incrimination following an invalid Miranda waiver. Forensic psychiatrists are “bound by underlying ethical principles of respect for persons, honesty, justice, and social responsibility,” with the latter two being especially relevant (Ref. 43, Preamble). Forensic psychologists are guided by the Principle E (i.e., Respect for People’s Rights and Dignity) to safeguard the rights of those persons “whose vulnerabilities impair autonomous decision-making” (Ref. 44, p 1063).

Forensic practitioners, skilled at addressing complex pretrial matters, should experience little difficulty in obtaining appropriate training and consultation for Miranda evaluations. In addition, practice-based texts provide the necessary conceptual underpinnings and applied methods. Two important and related areas of assessment address Miranda comprehension and Miranda reasoning.

Assessment of Miranda comprehension involves an analysis of the Miranda warning administered to arrestees as well as an evaluation of their abilities with reference to the particular advisement. Miranda warnings may quickly be gauged for length, reading level, and use of multisyllabic words, perhaps utilizing versions of Microsoft Word that do not round estimates to the nearest whole grade. Of the available reading estimates, the Flesch-Kincaid grade level is generally accepted as the relevant standard and has been adopted by the Department of Defense. Warnings can also be appraised systematically for the use of legalese, homonyms, and infrequently used words (Ref. 6, Appendices A and B). For examinees, forensic practitioners have standardized forensic assessment instruments for evaluating relevant Miranda vocabulary as well as recall of the administered Miranda warning.

As previously outlined, forensic practitioners have multiple forensic assessment instruments that may be readily applied to Miranda reasoning. The Miranda Quiz captures common misconceptions that may compromise the ability to rationally consider the waive/exercise decision. Such misconceptions are only relevant, however, if they were actively considered in making the Miranda waiver. Therefore, unhurried and open-ended questions are needed to avoid unnecessarily influencing the examinee’s recall. Regarding the decision itself, the Miranda Reasoning Measure assesses the examinee’s ability to weigh the pros and cons regarding the rights to silence and counsel. For expert opinions in Miranda cases, forensic practitioners must determine both the
quality and substance of the examinee’s thinking and ensuing decisions.

The current findings bring to light how misbeliefs about the role of law enforcement and the adversarial context of police questioning have the potential to trump all other relevant considerations. For instance, compromised decisions can arise from fundamental fallacies about cooperation with law enforcement either resulting in only positive outcomes or being required by their legal authority. In exploring these crucial considerations, some practitioners may elect to administer the MAQ, whereas others may choose to utilize the examples presented in Table 2. Whichever course of action is deemed advisable, Miranda evaluations may address directly how serious misbeliefs can compromise the waiver decision. In taking a balanced approach, equal attention must be paid to how accurate beliefs may protect and preserve Miranda reasoning.

Conclusions

This study provides insights into the complexity of Miranda questions and the importance of engaging forensic practitioners to conduct Miranda evaluations. Our findings strongly underscore how misbeliefs, such as trusting law enforcement, may compromise Miranda reasoning, with arrestees failing to realize the highly consequential risks of waiving rights without the benefit of legal counsel. Finally, the small but growing body of Miranda research with detainees may inform public policy decisions regarding Miranda and the rights of the accused.48

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