"Go Ahead and Sign": An Experimental Examination of Miranda Waivers and Comprehension

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This research examined whether the protections afforded by Miranda are compromised by two situational factors that may be present during the Miranda administration process. The factors examined were the police tactic of trivializing the importance of a waiver and the stress that accompanies an accusation of serious misconduct. All participants (N = 89) were accused of misconduct on an experimental task and were led to believe that they would have to discuss the incident with the professor in charge of the experiment. In addition, all participants were asked to sign a waiver of their right to have a student advocate present during that meeting, after which their comprehension of the waiver was assessed. To manipulate the police tactic of trivializing a waiver, participants were told that the waiver had important or trivial implications for their future outcomes. To manipulate stress, participants were told that their misconduct was either a serious or minor violation of the experiment. Results indicated that participants were more likely to sign the waiver and had worse comprehension of its content when it was described as trivial versus important. Participants’ comprehension of the waiver was also worse when their misconduct was described as a serious versus a minor violation of the experiment. These findings have implications for policy regarding the standardization of Miranda administration protocols as well as for future research aimed at understanding the influence of situational factors on Miranda waivers and comprehension.

Keywords: Miranda, comprehension, waivers, social influence

The Miranda v. Arizona (1966) ruling was a landmark criminal procedure decision. Although intended to be a prophylactic safeguard for suspects against police intimidation, the effectiveness and consequences of Miranda are still not clear 40 years after the ruling (Kassin et al., 2010; Leo & Thomas, 1998). For example, despite theory and research indicating that a variety of manipulative police tactics could weaken the protections that Miranda is supposed to afford suspects (Leo, 1996; Ufferman, Rudenstine, & Doss, 2009; White, 2001, 2003), there does not exist any experimental research that has examined the influence of these tactics on either suspects’ ability to comprehend or willingness to waive their rights. Furthermore, although recent research has demonstrated that stress undermines Miranda comprehension in general (e.g., Rogers, Gillard, Woolley, & Fiduccia, 2011; Scherr & Madon, 2012), no research has examined the effect of stress on either suspects’ ability to comprehend warnings that have direct relevance to their future outcomes or to their willingness to waive their rights. Therefore, the present investigation examined how the police tactic of trivializing the apparent importance of Miranda warnings and the stress associated with an accusation of serious misconduct influence these Miranda outcomes.

Keywords: Miranda, comprehension, waivers, social influence

Trivializing Miranda’s Importance

The Mirandizing of suspects represents a crucial turning point in police questioning. It is the point at which suspects are fully informed of their constitutional rights and made aware of the fact that their relationship with police is adversarial, information that should raise concern among suspects about any further communication with police (Leo, 2008). Yet, observations of the structure of police interrogation procedures reveal that police sometimes use a variety of social influence strategies during the Miranda administration process that can weaken Miranda’s intent to protect suspects (e.g., Leo, 1996, 2008; Simon, 1991). Broadly characterized, social influence strategies represent attempts to change people’s attitudes, cognitions, or behaviors through a variety of means such as persuasive messages, socialization, and peer pressure (Cialdini & Griskevicius, 2010). The effectiveness of such attempts has been reliably demonstrated in laboratory experiments (e.g., Asch, 1956; Milgram, 1974; Sherif, 1936) and naturalistic settings (e.g., Cialdini, Green, & Rusch, 1992; Goldstein, Cialdini, & Griskevicius, 2008; Lynn, 1992), including legal contexts (Horselenberg et al., 2006; Kassin & McNall, 1991; Redlich & Goodman, 2003). For example, field research has shown that police will sometimes frame Miranda as a procedural formality, suggesting to suspects that it should be dispensed with quickly, much like they might dispense with any number of routine forms (Leo, 1996, 2008).

Current perspectives propose that the goal of this particular strategy is to increase waiver rates by discouraging suspects from fully considering a waiver’s content and implications (Leo, 1996).
Certainly, this perspective makes sense in light of other research: Students’ comprehension of academic material is facilitated when instructors characterize it as important (Mosenthal, 1983) and, more generally, the perceived importance of an outcome influences the decisions that people make (e.g., Baron, Vandellos, & Brunsman, 1996; Janis, 1972; Sheriff, 1935). However, no research exists that has examined the effect of trivializing Miranda’s importance on either suspects’ comprehension of a waiver of their rights or their decision to waive or invoke those rights. This represents an important gap in the literature because a signed waiver gives police the opportunity to interrogate suspects with an array of coercive tactics that are specifically designed to weaken their resistance to confess. Accordingly, identifying whether trivializing Miranda’s importance reduces comprehension of a waiver’s content and increases the waiver rate is critically important, especially among the innocent who are at risk for false self-incrimination if interrogated. One aim of the current research, therefore, was to experimentally examine how the police tactic of trivializing a waiver’s importance influences both suspects’ ability to comprehend a document informing them of their rights and their willingness to waive those rights.

**Stress**

Stress is a psychological state in which people perceive their circumstances as threatening and likely to tax or exceed their ability to cope (Lazarus & Folkman, 1984). A key determinant of stress, therefore, is threat that corresponds to potential harm or loss presented by a situation (Folkman & Lazarus, 1985). Myriad research has supported the idea that stress impairs general cognitive functioning. According to processing efficiency theory, for instance, stress expends valuable cognitive resources that would otherwise be used for efficient cognitive functioning (Eysenck, 1982, 1992, 1997). Consistent with this theoretical perspective, a large body of empirical research has shown that stress produces decrements in a variety of cognitive functions including memory, information processing, and perception (Bargh & Thein, 1985; Callaway & Thompson, 1953; LeDoux, 1995). The negative effect of stress on cognitive functioning has also been demonstrated with respect to Miranda. According to two recent investigations, the experience of stress during the Miranda administration process undermines suspects’ ability to fully comprehend their rights (Rogers, Gillard, et al., 2011; Scherr & Madon, 2012). For example, Rogers, Gillard, and colleagues (2011) induced stress via an accusation of a mock theft (i.e., stealing a watch), and found that participants who were accused of the theft reported feeling more stress and demonstrated worse recall and reasoning on standardized measures of Miranda comprehension than did participants who were not accused of the theft. Scherr and Madon (2012) found similar results when stress was induced via an accusation of actual misconduct (i.e., cheating). Participants who were accused of having cheated on an experimental task reported feeling more stress and scored significantly lower on standardized measures of Miranda comprehension than did participants who were not accused of having cheated.

The results of these experiments are important because they provide evidence that stress, elicited by police accusation, can undermine suspects’ comprehension of Miranda warnings. However, it is important to point out that participants in both experiments had their comprehension assessed with respect to rights that did not hold implications for their future outcomes. Rogers, Gillard, and colleagues (2011) assessed Miranda comprehension in the context of a mock crime for which participants knew they could not actually be punished. Scherr and Madon (2012) presented the Miranda comprehension measures as assessments of individual differences, thereby divorcing them from any consequences that could have been associated with the act of cheating. Yet, within a preinterrogation context, suspects are expected to comprehend rights that have a direct bearing on their immediate future, such as whether or not they will have counsel present during an interrogation. Consideration of this point raises the possibility that suspects may be highly motivated to attend to Miranda warnings—more so than were participants of prior research experiments—precisely because their ability to comprehend those warnings is relevant to their future outcomes.

If this is the case, then it is conceivable that the previously documented effect of stress on Miranda comprehension could be compensated for by an increase in the extent to which suspects attend to the warnings. Indeed, it is well established that stress narrows people’s attentional focus to central and relevant information (Easterbrook, 1959). With respect to Miranda, therefore, it could be the case that the stress that accompanies police accusation may cause suspects to pay particularly close attention to the warnings, thus attenuating the negative effect that stress would have otherwise had on their comprehension. In light of this possibility, it is critical to examine the effect of stress on Miranda comprehension in the context of warnings that have clear implications for suspects’ immediate future. Toward this end, the current research examined whether stress, elicited by an accusation of serious misconduct, affects suspects’ comprehension of a waiver that has a direct bearing on their immediate future.

This research also explored whether stress affects suspects’ decisions to waive their rights. Several investigations have demonstrated that stress can undermine individuals’ systematic processing of information (Keinan, 1987; Keinan, Friedland, & Even-Haim, 2000; Webster, Richter, & Kruglanski, 1996). Drawing on this research, we hypothesized that stress would inhibit suspects’ ability to fully process the implications of a waiver and, therefore, would increase their willingness to waive their rights.

**Research Overview**

The current research examined how two situational factors—trivializing Miranda’s importance and the stress associated with an accusation of serious misconduct—influence suspects’ ability to comprehend rights that have a direct bearing on their future outcomes as well as their willingness to waive those rights. Using procedures adapted from Russano, Meissner, Narchet, and Kassin (2005), we accused participants in the current research (all of whom were innocent) of having inappropriately shared answers to a logic problem with a confederate partner. Participants were led to believe that they would have to discuss the incident with the professor in charge of the experiment, and they were asked to sign a waiver of their right to have a student advocate present during the meeting. After participants either waived or invoked their rights, their comprehension of the waiver was assessed. To manipulate the police tactic of trivializing a waiver, we told participants that the waiver had important or trivial implications for their future out-
comes. To manipulate stress, we varied the degree of threat inherent in the accusation of misconduct. Participants were told that their misconduct was either a serious or minor violation of the experiment.

Method

Participants

Undergraduate students (N = 92) at a large midwestern university participated in the experiment in exchange for partial fulfillment of a course requirement. All participants were native English speakers and at least 18 years old. The sample included 44 men and 48 women. The mean age of participants was 19.6 years, and approximately 93% of the sample identified themselves as European American, 2% as African American, 1% as multiethnic, and 4% as “other.” Three participants indicated a high level of suspicion and were, consequently, removed from the main analyses, leaving a final sample of 89 participants.

Experimental Design

Participants were randomly assigned to a 2 (waiver description: trivial vs. important) × 2 (violation: serious vs. minor) between-subjects experimental design. All participants were wrongly accused of having inappropriately shared answers to a logic problem with a partner, and they were led to believe that they would have to discuss their misconduct with the professor in charge of the experiment. In addition, all participants were asked to sign a waiver of their right to have a student advocate present during that meeting, after which their comprehension of the waiver was assessed. The partner, who was actually a confederate working with the research team, was always a European American or Latino undergraduate between the ages of 20 and 24 years. The factor of waiving description manipulated the perceived importance of a written waiver document. Participants were told that the waiver had either trivial or important implications for their future outcomes. The factor of violation manipulated stress through the threat inherent in the seriousness of the accused offense. Participants were told that sharing answers with their partner was either a serious violation of the experiment, equivalent to cheating, or a minor violation of the experiment, not equivalent to cheating.

Measures

Arrests and American College Test (ACT). Research has shown that prior experience with the criminal justice system can influence suspects’ willingness to waive their rights (e.g., Leo, 1996; Softley, 1980). To assess the potential influence of this factor in the current experiment, we asked participants to report the number of times that they had been arrested.

Prior investigations have also demonstrated that intelligence can have a significant influence on Miranda outcomes (e.g., Clare & Gudjonsson, 1991; O’Connell, Garmoe, & Goldstein, 2005). In the current research, we examined the potential influence of intelligence by assessing participants’ ACT scores. Although ACT scores are not synonymous with intelligence, they have been shown to strongly correlate with measures of intelligence (e.g., California Test of Mental Maturity, the Lorge–Thorndike Intelligence Test, the Henmon–Nelson Test of Mental Ability, the Otis–Lennon Mental Ability Test; Koenig, Frey, & Detterman, 2008), thereby indicating that they were an appropriate proxy to use in the current research. Participants self-reported their ACT scores in response to the statement “What was your ACT composite score?”.

Waiver document. The waiver was a single-spaced document that was approximately one half-page long. Near the bottom of the waiver, a signature line and statement were printed that clearly indicated that signing the document waived one’s right to have a student advocate present during the meeting with the professor. To establish the waiver’s authenticity, an embossed university emblem was stamped beneath the signature line. In addition, the waiver highlighted the value of academic integrity and detailed the consequences of academic dishonesty, including a hearing by judicial affairs, followed by the possibility of academic probation or expulsion (see the Appendix).

Waiver comprehension assessments. Participants’ comprehension of their rights was measured with three assessments that were specifically created for this experiment. Although tailored after the Miranda Rights Comprehension Instruments (Goldstein, Zelle, & Grisso, 2011), the assessments that were used in the current experiment measured participants’ comprehension of the written waiver document that they had been given. This was an important aspect of the research because it meant that the comprehension assessments pertained to rights that were directly relevant to participants’ future outcomes (e.g., the meeting with the professor, charges of academic dishonesty), thereby avoiding the limitation of past research in which comprehension was assessed with respect to rights that had no bearing on participants’ future.

Waiver Comprehension Assessment 1 mirrored the Comprehension of Miranda Rights (CMR). It measured participants’ comprehension of five statements by having them explain each statement’s meaning. The five statements were (a) “You have the right not to talk about the incident”; (b) “Anything you say can and will be used against you while talking about the incident”; (c) “You have the right to talk to a student advocate before you are asked any questions and to have him or her with you during questioning”; (d) “The student advocate will not cost you any money”; and (e) “If you decide to answer questions now without the student advocate present, you still have the right to stop questioning at any time until you talk to the student advocate.” Responses were considered inadequate, questionable, or adequate, and scored 0, 1, or 2, respectively. Participants’ scores on this instrument could range from 0 (i.e., five inadequate answers) to 10 (i.e., five adequate answers).

Waiver Comprehension Assessment 2 mirrored the Comprehension of Miranda Rights—Recognition (CMR–R). It also measured participants’ comprehension of statements but, mirroring the CMR–R, did so through recognition of statements rather than through verbal expressive skills. Specifically, for each of the five original statements included in Waiver Comprehension Assessment 1, participants were presented with three preconstructed sentences and were asked whether each sentence was or was not identical in meaning to the original statement (see Goldstein et al., 2011, for more specific details). Each incorrect response received a score of 0, whereas each correct response received a score of 1. Total scores could range from 0 (i.e., incorrect recognition of each of the 15 preconstructed sentences) to 15 (i.e., correct recognition of each of the 15 preconstructed sentences).
Waiver Comprehension Assessment 3 mirrored the Comprehension of Miranda Vocabulary (CMV). This questionnaire measured participants’ comprehension of 16 commonly used legal words (e.g., *advocate*, *right*, *represent*, etc.) by having them define each one. Responses were considered *inadequate*, *questionable*, or *adequate*, and scored 0, 1, or 2, respectively. Total scores could range from 0 (i.e., inadequate responses to all 16 words) to 32 (i.e., adequate responses to all 16 words).

**Manipulation check.** To assess the effectiveness of the violation manipulation to vary stress levels, we asked participants three questions that assessed the degree of stress they felt at the time that they had been (a) accused of misconduct, (b) learned of the potential consequences of their misconduct, and (c) learned that they would have to meet with the professor in charge of the experiment to discuss their misconduct. To minimize the chances that these questions would raise suspicion among participants about the accusation of misconduct, we embedded them within a conversation initiated by a waiver administrator, who was a member of the research team, blind to the violation condition, and administered the waiver document to participants. Waiver administrators were trained to weave the questions into the conversation, thus making them appear spontaneous despite the fact that they were planned in advance. Shortly after these questions were asked, waiver administrators privately coded participants’ responses on 7-point rating scales where 1 = low stress levels and 7 = high stress levels. Participants’ responses to the three questions were averaged to create one score for each participant (α = .87). Higher values corresponded to greater stress.

**Suspicion check.** To assess suspicion, we asked participants what they believed might be under investigation in the research.

**Procedure**

Upon arrival to the lab, participants completed a consent form and were introduced to a confederate who posed as their partner for the experiment. The experimenter then provided the pair with a cover story, explaining that the experiment was designed to examine underlying processes of team decision making, and that during the session the pair would complete various tasks that measured their ability to work independently and together. The participant and the confederate were then escorted into separate rooms, each equipped with a personal computer. While separated from the confederate, participants responded to questions that assessed their demographic information, arrests, and ACT scores. Upon completion of these measures, the pair was reunited in another room, where they were given a few minutes to get acquainted. Once acquainted, the pair was given logic problem packets that included two identical individual packets and one team packet. The experimenter instructed the pair to solve the individual logic problems independently and to solve the team logic problems jointly. Once the pair had finished the logic problems, they were given a filler survey to complete while the experimenter ostensibly scored their answers to the logic problems.

After the pair had finished the filler survey, the experimenter returned to the pair’s room, looking irritated, and told the pair that their responses were still being checked and then exited. After another minute passed, the experimenter returned again, explained that there did appear to be a problem, and escorted the confederate out of the room for questioning. The experimenter returned to the participant five minutes later and explained that he was suspicious that the pair had shared answers on one of the individual logic problems because they both had the same wrong answer. Participants were then informed that the professor had been notified of the incident, and that departmental policy required that they meet with him after the session to discuss it. At this point, the violation manipulation occurred. The experimenter told participants in the serious violation condition that the professor viewed the incident as a very serious violation of the experiment, and that he considered it to be equivalent to a case of cheating. By contrast, the experimenter told participants in the minor violation condition that the professor considered the incident to be a minor violation of the experiment, very different from cheating.

The experimenter then introduced participants to the waiver administrator who, it was explained, would assist in handling the incident in accordance with departmental policy. The experimenter then exited the room and the waiver administrator presented participants with a written waiver of their rights. While doing so, the waiver administrator also manipulated the waiver’s apparent importance, thereby keeping the experimenter blind to the waiver description manipulation. In the trivial condition, the waiver administrator characterized the waiver as an insignificant part of the protocol and trivialized its implications for the participants’ future outcomes. In the important condition, the waiver administrator characterized the waiver as a significant aspect of the protocol, and stated that it had important implications for the participants’ future outcomes. Following the waiver description manipulation, the waiver administrator initiated a conversation with participants that included the three preplanned questions that assessed their retrospective experience of stress during the accusation. Once these questions were answered, the waiver administrator gave participants the written waiver document of their rights and instructed them to read and complete it. After participants either signed (waived their rights) or did not sign (invoked their rights) the waiver, the waiver administrator exited the room with the waiver document in hand and immediately coded participants’ stress levels in private. At the point that the waiver administrator exited the room, the experimenter returned to assess participants’ comprehension of the waiver document via the three waiver comprehension assessments. Once finished, the experimenter provided participants with a measure of suspicion and then exited the room so that participants could complete the measure in private. Upon its completion, the experimenter returned and debriefed participants. The debriefing procedures fully informed participants about the deception used in the research and explained why the deception was necessary. Also during the debriefing, participants were encouraged to ask questions and were requested not to share details of the experiment with others who might participate in the future. Finally, in the event that participants wished to discuss their participation in the research further, they were provided with contact information for the professor overseeing the research, staff at the Institutional Review Board, and university counseling services.
Results

Preliminary Analyses

Suspicions. Examination of participants’ responses to the suspicion check indicated that three participants doubted the veracity of the accusation of misconduct and also did not believe that they would have to meet with the professor to discuss their misconduct. Accordingly, these three participants’ data were removed from all subsequent analyses. No participants were suspicious about the cover story, confederate, or waiver administrator, and none inferred the true purpose of the research.

Inter-rater agreement for waiver comprehension questionnaires. Two coders, masked to the conditions, independently scored participants’ responses to Waiver Comprehension Assessments 1 and 3. To assess inter-rater agreement, we first summed each coder’s scores across the five items composing Waiver Comprehension Assessment 1 and across the 16 items composing Waiver Comprehension Assessment 3. We performed this operation separately for each coder, thereby creating four scores per participant: two pertaining to Waiver Comprehension Assessment 1 (Coder 1 score and Coder 2 score) and two pertaining to Waiver Comprehension Assessment 3 (Coder 1 score and Coder 2 score). Then, for each waiver comprehension assessment, we correlated the summed scores of Coder 1 and Coder 2. Both correlations were significant and, according to Cohen (1988), were large in terms of their magnitude, thereby indicating an adequate level of inter-rater agreement. \( r(86)_{\text{Assessment 1}} = .62, p < .001; r(86)_{\text{Assessment 2}} = .57, p < .001 \). Nonetheless, the degree of inter-rater agreement for these assessments was lower than typically observed for standardized measures of Miranda comprehension (e.g., Cooper & Zapf, 2008; Rogers et al., 2009; Rogers, Rogstad, Steadham, & Drogin, 2011). Although not ideal, it is important to point out that any unreliability inherent in the assessments that we used would add error to our measurement and make it more difficult to find significant effects. Accordingly, significant results involving Waiver Comprehension Assessments 1 and 3 may reflect conservative estimates. Waiver Comprehension Assessment 2, which mirrored the CMR–R, did not require coding because it could be scored in a purely objective manner.

Manipulation check. An independent samples \( t \) test was conducted to examine whether the violation manipulation effectively varied participants’ stress levels. The dependent variable was participants’ retrospective judgments of their stress levels during the accusation as coded by the waiver administrators. Results indicated that participants in the serious violation condition experienced significantly more stress during the accusation \((M = 3.48)\) than did participants in the minor violation condition \((M = 2.66)\). This result supports the effectiveness of the violation manipulation to vary participants’ stress, \( t(87) = -2.48, p = .02, d = 0.53, 95\% \text{ CI } [-1.48, -0.16] \).

Arrests and ACT scores. A frequency analysis indicated that 79 participants (89%) reported never having been arrested, six participants (7%) reported having been arrested once, two participants reported having been arrested twice (2%), and two participants reported having been arrested three times (2%). Preliminary analyses that entered arrests as a covariate in 2 (violation) \( \times 2 \) (description) analysis of variance (ANOVA) indicated that arrests did not significantly predict any waiver comprehension scores, \( Fs(1, 83) \leq 0.38, p s \geq .54 \), or waivers, \( \beta = 0.03, SE = 0.43, \text{Exp}(\beta) = 1.03, p = .94, 95\% \text{ Exp}(\beta) \text{ CI [0.44, 2.4]} \). For this reason, we did not include arrests as a control variable in the main analyses.

To examine whether there were differences in ACT scores across the experimental conditions, we performed a 2 (violation) \( \times 2 \) (description) analysis of variance (ANOVA) in which participants’ ACT scores were the dependent variable. Results failed to indicate a significant main effect of waiver description or violation, \( Fs(1, 86) \leq 1.75, p s \geq .19 \). ACT scores also did not significantly correlate with arrests, \( r = -.11, p = .32 \). Additional preliminary analyses indicated that ACT scores did have a significant zero-order correlation with Waiver Comprehension Assessment 3 (see Table 1). In addition, when ACT scores were entered as a covariate in 2 (violation) \( \times 2 \) (description) analytic models, ACT scores (a) significantly predicted Waiver Comprehension Assessment 3, \( F(1, 83) = 8.00, p < .01 \), (b) but did not significantly predict either Waiver Comprehension Assessment 1 or 2, \( Fs(1, 83) \leq 2.61, p s \geq .11 \), and (c) did not significantly predict waivers, \( \beta = 0.009, SE = 0.07, \text{Exp}(\beta) = 1.01, p = .90, 95\% \text{ Exp}(\beta) \text{ CI [0.88, 1.16]} \). Finally, because including ACT scores might add error to our measurement and make it more difficult to find significant effects, we did not include ACT scores in any subsequent analyses.

Table 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
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<th>4</th>
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<td>Signing of waiver</td>
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<td>.01</td>
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<td>.29**</td>
<td>.07</td>
<td>-.24*</td>
<td>.14</td>
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Mean 51% a 1.18 25.69 74% b 7.80 12.22 23.54

SD 0.58 3.51 1.35 1.59 2.79

a Value reflects percentage of participants who were women (1 = female, 2 = male). b Value reflects percentage of participants who signed a waiver (0 = did not sign waiver, 1 = signed waiver). Values associated with comprehension assessments indicate average comprehension score, with higher scores indicating better comprehension.

*p < .05. **p < .01.
scores as a control variable did not alter our main findings in any meaningful way, we chose to simplify the presentation of our results by omitting ACT scores as a control variable.

Although previous research has found that both arrests and intelligence significantly influence Miranda outcomes (Clare & Gudjonsson, 1991; O’Connell et al., 2005; Sofley, 1980), the homogeneous nature of our sample may have resulted in a restriction of range in arrests and ACT scores, thereby reducing the potential for significant relations to emerge in our data. Indeed, college students are generally more intelligent than the average population (Ceci & Williams, 1997) and are less likely to have direct exposure to the legal system than other, less educated individuals (e.g., Lochner, 2004; Lochner & Moretti, 2004). In considering this aspect of our sample, we think it is likely that arrests and ACT scores would have more strongly related to the Miranda outcomes that we examined had our sample been more diverse.

**Gender.** A chi-square analysis indicated that there were no gender differences across the three waiver comprehension questionnaires, $\chi^2(87) \leq 11.72$, $p \geq .09$, nor were there significant differences between men’s and women’s willingness to sign the waiver, $\chi^2(1, N = 89) = 0.44$, $p = .51$. Therefore, we did not include gender as a control variable in the main analyses.

**Descriptive information.** Correlations, means, and standard deviations for the measures used in the analyses are presented in Table 1.

### Table 2

**Means, Standard Deviations, F Values, and Effect Sizes Associated With Waiver Comprehension Outcomes as a Function of the Waiver Description Manipulation (N = 89)**

<table>
<thead>
<tr>
<th>Waiver comprehension assessment</th>
<th>Trivial (n = 44)</th>
<th>Important (n = 45)</th>
<th></th>
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<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
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<tr>
<td>1</td>
<td>7.52</td>
<td>1.36</td>
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<td>22.89</td>
<td>2.76</td>
<td>24.19</td>
<td>2.69</td>
</tr>
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</table>

Note. Values reflect average waiver comprehension scores within each waiver description condition. Higher scores indicate better comprehension.

* $p < .05$.

To further explore the significant main effects reported above, we performed three separate $2 \times 2$ (violation ANOVAs in which the dependent variables were participants’ scores on the three waiver comprehension assessments. Results indicated significant main effects for waiver description and violation. As shown in Table 2, participants demonstrated significantly worse comprehension of the waiver in the trivial versus important waiver description condition, $F_{s}(1, 85) \geq 4.54, ps \leq .03, ds \geq 0.46, 95\% CI_{Assessment 1} [0.04, 1.09], 95\% CI_{Assessment 2} [0.09, 1.36], 95\% CI_{Assessment 3} [0.19, 2.45]$. Likewise, as reported in Table 3, participants demonstrated significantly worse comprehension of the waiver in the serious versus minor violation condition, $F_{s}(1, 85) \geq 3.96, ps \leq .05, ds \geq 0.43, 95\% CI_{Assessment 1} [0.41, 1.46], 95\% CI_{Assessment 2} [0.14, 1.41], 95\% CI_{Assessment 3} [0.001, 2.27]$. By contrast, the interaction between the waiver description and violation was not significant for any of the individual comprehension assessments, $F_{s}(1, 85) \leq 1.64, ps \geq .20, ds \leq 0.28$. Overall, these results suggest that trivializing the importance of a waiver and the stress associated with an accusation of serious misconduct impair suspects’ comprehension of a waiver of their rights. The fact that the waiver document used in the current research had clear implications for participants’ immediate outcomes indicates that the previously documented effect of stress on Miranda comprehension (Rogers, Gillard, et al., 2011; Scherr & Madon, 2012) likely generalizes to the Miranda administration process in which suspects must comprehend rights that have a direct bearing on their future.

**Waivers.** We hypothesized that the police tactic of trivializing a waiver and the stress associated with an accusation of serious misconduct would increase waiver rates. We tested these hypotheses with a logistic regression analysis in which the dependent variable was participants’ dichotomous decision to either waive or invoke their right to have a student advocate present during the Miranda administration process in which suspects must comprehend rights that have a direct bearing on their future. We hypothesized that the police tactic of trivializing a waiver and the stress associated with an accusation of serious misconduct would increase waiver rates. We tested these hypotheses with a logistic regression analysis in which the dependent variable was participants’ dichotomous decision to either waive or invoke their right to have a student advocate present during the meeting with the professor. Step 1 included the experimental conditions of waiver description and violation. To explore whether the effect of trivializing a waiver on suspects’ decision to either waive or invoke their rights would be greater the more stress suspects experience during the Miranda administration process, Step 2 added a waiver Description × Violation interaction term.

Figure 1 shows the pattern of results. Step 1 indicated a significant main effect of waiver description. Participants signed the waiver significantly more often when it had been described as trivial (86%) than important (62%), $\beta = -1.35$, $SE = 0.54$, $Exp(\beta) = 0.26, p = .01$, 95% $SE = 0.54$, $Exp(\beta) CI [0.09, 0.74]$. By contrast,
the main effect of violation did not significantly influence participants’ willingness to sign the waiver. The percentage of participants who signed the waiver in the serious violation condition (71%) did not differ significantly from the percentage of participants who signed the waiver in the minor violation condition (77%), \( \beta = -0.33, SE = 0.51, \exp(\beta) = 0.72, p = .51, 95\% \ CI [0.27, 1.93]. \) Results from Step 2 indicated that the Waiver Description \( \times \) Violation interaction term was also not significant, \( \beta = -0.50, SE = 1.08, \exp(\beta) = 0.61, p = .64, 95\% \ CI [0.07, 5.00]. \) These results support the hypothesis that the police tactic of trivializing Miranda’s importance increases waiver rates. However, there was no evidence in these data to suggest that this effect varied according to the level of stress experienced by suspects during the Miranda administration process.

### Discussion

Researchers and legal scholars have speculated that the Miranda administration process may be characterized by situational factors that have the potential to undermine the protections that Miranda was originally intended to afford suspects (e.g., Kassin et al., 2010; Leo, 1996; White, 2003). The findings of this research offer experimental evidence to support these claims. Consistent with the idea that trivializing Miranda’s importance can reduce suspects’ comprehension of Miranda warnings and increase the waiver rate, our data showed that participants exhibited worse comprehension of a waiver’s content and more often waived their right to have a student advocate present while discussing their alleged misconduct with a professor when they were told that the waiver had trivial versus important implications for their future outcomes. Results also supported the idea that stress can undermine suspects’ comprehension of a waiver’s content. Participants’ comprehension of the waiver was lower when their misconduct had been described as a serious versus a minor violation of the experiment.

The findings of this research are important for several reasons. First, although observational studies have established that police commonly use a variety of manipulative tactics while Mirandizing suspects (Leo, 1996, 2008; Simon, 1991), the effects of these tactics on suspects’ Miranda outcomes have not previously been experimentally investigated. The findings of the current research provide experimental evidence that the use of such tactics can have detrimental effects. In the current research, trivializing a waiver’s importance both impaired participants’ comprehension of a waiver’s content and increased the waiver rate. The fact that all participants in the current research were innocent of wrongdoing means that our data cannot address whether the tactic of trivializing Miranda’s importance has differential effects on innocent and guilty suspects. However, our data do suggest that the innocent are not immune to such effects, thereby emphasizing the need to limit the use of this tactic when Mirandizing suspects.

Second, the findings of this research help to clarify the conditions under which stress impairs suspects’ comprehension of Miranda warnings. Although previous research has demonstrated that stress undermines suspects’ ability to comprehend their rights, this effect was shown with respect to rights that were not relevant to participants’ future outcomes (Rogers, Gillard, et al., 2011; Scherr & Madon, 2012). Whether this effect generalizes to a preinterrogation context in which Miranda warnings have clear implications for suspects’ immediate future cannot, therefore, be answered by these prior research findings. In fact, it is conceivable that stress, elicited by an accusation of criminal misconduct, might narrow suspects’ attentional focus to Miranda warnings precisely because of their relevance to suspects’ immediate future (Easterbrook, 1959). This response, if it occurs, could minimize the detrimental effect that stress would have otherwise had on suspects’ comprehension by causing them to pay particularly close attention to the warnings. However, our research findings did not support this possibility and instead showed that stress impaired participants’ comprehension of rights that were directly relevant to their imme-

<table>
<thead>
<tr>
<th>Waiver comprehension assessment</th>
<th>Serious violation condition (n = 45)</th>
<th>Minor violation condition (n = 44)</th>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
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<tr>
<td>1</td>
<td>7.34</td>
<td>1.28</td>
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<tr>
<td>2</td>
<td>11.84</td>
<td>1.41</td>
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<tr>
<td>3</td>
<td>22.99</td>
<td>2.29</td>
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**Note:** Values reflect average waiver comprehension scores within each violation condition. Higher scores indicate better comprehension. *\( p < .05. \) **\( p < .01. \)

Figure 1. Values reflect the percentage of participants who signed the waiver across the waiver description and violation conditions (\( N = 89. \).
The findings of the current research highlight the need for standardization in the Miranda administration process. Although it may not be possible to altogether remove the subtle and nuanced negative effects that nonverbal communication on the part of the police can have on suspects' Miranda outcomes, we believe that significant improvements are still possible through standardization efforts. For example, police could be required to instruct suspects to pay close attention to the rights afforded to them during the preinterrogation process and to characterize these rights as important (e.g., "You should pay close attention to the rights I am about to read you; they are important"). Improvements could also be achieved by using required-only content. Police often talk to suspects before they have formally administered Miranda—a time during which they may qualify statements and exploit suspects' trust (Leo, 1996), offer suspects incentives and "luxuries" (e.g., cigarettes, coffee, snacks; Simon, 1991), or directly deceive suspects by providing misinformation (e.g., "We can no longer help you if you call your lawyer"; Leo, 1996; Simon, 1991). However, requiring police to use a script containing required-only content and to administer Miranda before engaging in any tangential dialogue with suspects would minimize the extent to which police can circumvent Miranda's intent. Required-only content might also serve to alleviate some of the burden placed on triers of fact when determining whether a waiver was offered knowingly and intelligently. The suggestions that we have offered here mirror recommendations made by researchers regarding the influence of system variables on eyewitness identifications (e.g., Wells, 1978, 1988), and underscore our larger point that there are likely effective ways to standardize the Miranda administration process that can lessen the chance that certain situational factors may impair Miranda comprehension and increase waiver rates.

Limitations and Future Directions

There are several limitations of this research that warrant mention. First, the procedures that we employed reflected an upper bound approach in the sense that they did not create as intense a situation as is typically experienced by suspects of crimes. For example, our procedures did not involve the type of highly coercive strategies that are sometimes used by police during the Miranda administration process, nor were our procedures designed to induce the same degree of stress that typically accompanies police accusation of criminal behavior. Moreover, our sample comprised undergraduate students who were relatively homogeneous with respect to age and ethnicity, and who were probably less vulnerable to coercion than the typical criminal suspect. As a result, the effects observed in the current research likely differ from those that are present during actual preinterrogation contexts. However, we believe that the nature of this difference is one of magnitude rather than effect. Current theoretical perspectives propose that social influence tactics and stress can have harmful effects on suspects' comprehension and decision-making abilities during the Miranda administration process. Our findings are consistent with these perspectives, thereby demonstrating their applied relevance.

Nonetheless, because the situation that we created was less intense than that experienced by criminal suspects and because our participants did not constitute a vulnerable population, the magnitude of effects that we observed is likely conservative. An important area for future research, therefore, would be to examine whether the effects demonstrated in this research vary according to the psychological pressure imposed on suspects and whether some suspects (because of minor status or cognitive or social impairments; Gudjonsson, 2003; Redlich, 2007) are especially vulnerable to social influence strategies and stress while being Mirandized.

Second, we assessed comprehension and waivers with respect to warnings that were specific to the accusation of misconduct used in this research. Taking this approach had the advantage of allowing us to address whether trivializing a waiver's importance and the stress associated with an accusation of serious misconduct influenced comprehension and waivers of rights that had direct bearing on participants' future outcomes. However, it also limited the extent to which comparisons could be made between our participants' comprehension scores and normative statistics specific to Miranda comprehension (e.g., Rogers, Gillard, et al., 2011; Scherr & Madon, 2012; Zelle, Goldstein, Rigg's Romaine, & Kemp, 2011). For example, unlike standardized Miranda comprehension instruments that were largely developed to evaluate a particular defendant's competency to understand and appreciate Miranda (Goldstein et al., 2011; Zelle et al., 2011), our comprehension assessments are best suited to understanding how situational factors (e.g., stress) can impair Miranda comprehension in general, not whether a particular suspect's comprehension was impaired. Accordingly, it is important for future research to replicate the effects observed in the current research with comprehension measures that can speak to the competency of individuals to understand typical waiver documents.

Third, we manipulated stress through the threat inherent in the seriousness of the accused offense. Although the manipulation check provided evidence that participants experienced more stress when they were accused of a serious violation of the experiment than a minor violation of the experiment, this does not rule out the possibility that the violation manipulation had additional effects on participants' comprehension scores for reasons that were unrelated to stress. In other words, it is possible that other unmeasured characteristics of the violation manipulation that were not related to stress were partly responsible for the differences that we observed in participants' comprehension scores. Although our data cannot rule out this possibility, theoretical and empirical research indicates that stress undermines suspects' comprehension of Miranda rights (Grisso, 1998; Kassin et al., 2007; Oberlander & Goldstein, 2001; Rogers, Gillard, et al., 2011; Scherr & Madon, 2012), thereby supporting our interpretation that the violation manipulation at least partly affected participants' comprehension scores because of its effect on their stress levels.

Finally, because all participants in this research were innocent, the results reported herein should not be assumed to necessarily characterize Miranda outcomes among guilty suspects. Indeed, prior research has demonstrated that innocent and guilty suspects differ from one another on a number of important dimensions relevant to accusations and interrogations, including their willingness to waive their rights (Kassin & Norwick, 2004), their perceived vulnerability to conviction and punishment (Kassin, 2005), the degree to which they experience stress in response to an
accentuation of misconduct (Guyll et al., in press), and their willingness to confess under pressure (Guyll et al., in press; Narchet, Meissner, & Russano, 2011; Russano et al., 2005). These previously documented differences highlight the need for future research to examine whether trivializing Miranda’s importance and the stress associated with an accusation of a serious crime differentially influence innocent and guilty suspects.

Conclusion

The Supreme Court’s landmark criminal procedure decision regarding Miranda v. Arizona (1966) was intended to offer suspects prophylactic safeguards against police intimidation. The present research examined whether two situational factors undermine these safeguards by reducing suspects’ comprehension of Miranda and increasing the Miranda waiver rate. The factors examined were the police tactic of trivializing Miranda’s importance (Leo, 1996) and the stress associated with an accusation of serious misconduct (Gudjonsson, 2003; Irving, 1980). Consistent with psychological theory and field observations, results indicated that both situational factors reduced participants’ comprehension of a waiver’s content, and that trivializing the waiver’s importance also increased the waiver rate. These findings emphasize the need for future research to examine whether two situational factors under investigation of Miranda rights.

References


(Appendix follows)
Appendix
Waiver Document

The value of an education at [specific university] depends greatly upon the quality of academic work and research completed by students at our institution. Each member of the [specific university] community has an opportunity to play an important role in promoting and preserving integrity on campus. Students may make a personal decision to engage in a dishonest act, but there are ways in which faculty and instructors can design assignments to discourage academic misconduct.

Engaging in dishonest work may result in consequences from the University such as a reduced or failing grade on the particular assignment or test, a reduced or failing grade in the course, and a range of sanctions from the Office of Judicial Affairs such as academic expulsion. Current and former students applying for graduate school or government jobs may be requested by that college, university, or government agency to disclose any instances of dishonest academic work for which they were found responsible for violating university policy.

Academic dishonesty can result in an Administrative Hearing or another appointment with a staff member in the Office of Judicial Affairs. Of particular importance is whether the alleged violations are determined to be Minor or Major. For cases of dishonest work occurring during research studies, students typically meet with the professor of the experiment prior to any further action regarding the case of dishonesty. Students may elect to have an advocate working on their behalf represent them at this meeting.

You can also expect to be informed of any pending charges, options for resolving your case, and any potential sanctions, or consequences, for your behavior. During the hearing, you will be asked whether you admit or deny responsibility for the charges and to provide your account of the incident(s) in question. You may also be asked additional questions to further clarify understanding of the incident. Following the hearing, you will be notified of the outcome and any related sanctions if you were found responsible for violating university policy.

By signing below you agree to waive the privilege of having an advocate represent you when you meet with the professor in charge of the experiment immediately after the session.

Please sign here to indicate that you understand the above paragraphs.

[embossed university emblem]