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# Minimization and maximization techniques: Assessing the perceived consequences of confessing and confession diagnosticity

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Running head: PERCEIVED CONSEQUENCES OF CONFESSING

Minimization and maximization techniques:  
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#### Abstract

Identifying interrogation strategies that minimize the likelihood of obtaining false information, without compromising the ability to elicit true information, is a challenge faced by both law enforcement and scientists. Previous research suggests that minimization and maximization techniques may be perceived by a suspect as an expectation of leniency and a threat of harsher punishment, respectively, and that these approaches may be associated with false confessions. The current studies examine whether it is possible to distinguish between minimization and maximization techniques that do or do not influence a suspect's perceptions of the consequences of confessing. Results indicate that techniques that manipulate the perceived consequences of confessing influence both the decision to confess and the diagnostic value of confession evidence.

Minimization and maximization techniques:  
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Increasing true confessions from the guilty and eliminating false confessions from the innocent are two important interests of the criminal justice system. Obtaining true confessions allows open cases to be closed quickly and promotes guilty pleas, speeding up the conviction process (Costanzo, 2004). The importance of reducing or eliminating false confessions has become evident given the role of (false) confession evidence in recent DNA exonerations (Kassin, Drizin, Grisso, Gudjonsson, Leo, & Redlich, 2010). The Innocence Project ([www.innocenceproject.org](http://www.innocenceproject.org)) reports that approximately 25% of the over 250 wrongful conviction cases were the product of, at least in part, a false admission elicited from the defendant.

Although research has focused on the problem of false confessions and the various factors that may lead a person to falsely implicate themselves (Gudjonsson, 2003; Kassin et al., 2010), more recent studies have begun to explore the diagnostic value of confessions (or the ratio of true to false confessions elicited) resulting from various police interrogation techniques (see Meissner, Russano, & Narchet, 2010; Narchet, Meissner, & Russano, in press). We believe it is of critical importance to identify those techniques that maximize the diagnostic value of confession evidence, not just those that produce false confessions – particularly if we are to encourage the law enforcement community to seriously consider the results of social science research and adapt their procedures accordingly. Furthermore, we believe it imperative that such recommendations have a strong empirical basis, grounded in psychological theory and evaluated using appropriate experimental rigor (see Meissner, Hartwig, & Russano, 2010; Meissner, Russano, & Narchet, 2010).

The purpose of the current study was to further our understanding of the diagnostic value of confessions obtained using of two common approaches to interrogation, namely minimization and maximization tactics. Previous research has indicated that these approaches (which actually each consist of a package of techniques) are associated with the elicitation of false confessions (Kassin & Kiechel, 1996; Kassin & McNall, 1991; Klaver, Lee, & Rose, 2008; Narchet et al., in press; Russano et al., 2005), suggesting perhaps that these approaches should be avoided. For reasons that will be discussed below, this advice may be impractical. The goal of the current study was to explore whether some forms of these common interrogative methods used by law enforcement might prove more diagnostic than others.

Kassin and McNall (1991) originally argued that most modern-day interrogation techniques can be identified as either a minimization or maximization technique. *Minimization* generally involves a gentle, friendly approach in which the interrogator attempts to gain the suspect's trust and minimize the seriousness of the offense. Examples of minimization techniques include stressing the importance of cooperation, expressing sympathy, blaming the victim, and providing face-saving excuses. *Maximization*, on the other hand, generally involves the use of harsher techniques or "scare tactics" that are confrontational in nature and are designed to emphasize the seriousness of the situation. Examples of maximization techniques include expressing absolute certainty in the suspect's guilt, shutting down denials, exaggerating the seriousness of the offense, and bluffing about evidence. During an interrogation, an investigator may use multiple forms of minimization and/or maximization (cf. Leo, 1996). For example, an interrogator might tell a suspect that officers found his fingerprints on the murder weapon (a maximization technique), and then justify the crime by saying that the suspect must have been provoked by the victim (a minimization technique).

Previous research suggests minimization and maximization techniques manipulate the suspect's perceptions of the consequences of confessing and are, therefore, often interpreted by the suspect as the equivalent of an expectation of leniency (if a confession is provided) or a threat of harsher punishment (if no confession is provided), respectively (Kassin & McNall, 1991). Kassin and McNall assessed participants' perceptions of various interrogation transcripts. When minimization techniques were displayed, such as excuses and justifications for the crime provided by the interrogator, participants perceived the interrogation as non-coercive, but believed that an implicit offer of leniency was made in return for the suspect's confession. The maximization transcript included the use of "scare tactics" by the interrogator and an overstatement of the evidence against the suspect. Participants reading this transcript believed there was an implicit threat of harsher punishment if the suspect did not confess. Based upon these results, Kassin and McNall posited that the use of maximization and minimization techniques may alter a suspect's perception of the expected consequences of confessing, which may affect a suspect's decision to confess. Of course, it is particularly problematic if these techniques lower the diagnosticity of an interrogation by increasing the likelihood of false confession, and recent experimental works suggest that this is indeed the case (Kassin & Kiechel, 1996; Klaver, Lee, & Rose, 2008; Narchet et al., in press; Russano et al., 2005).

Russano et al. (2005) examined the use of minimization techniques versus an explicit offer of leniency during an interrogation using a novel laboratory paradigm. In the paradigm (which will be described in more detail in the method section), participants were induced to cheat (or not) during an experimental task. All participants were later subjected to an interrogation in which the experimenter accused them of cheating and asked them to confess to the act. In this interrogative context, Russano et al. found that the use of minimization techniques and an offer of leniency increased both true and false confessions. The researchers also examined diagnosticity, or the ratio of true to false confessions, finding that both minimization and direct offers of leniency decreased the diagnostic value of the interrogative evidence. Russano et al. also explored participants' perceptions of the interrogation and found that innocent participants exposed to minimization tactics felt more pressure to confess than those in the control condition. This paradigm has been used in subsequent studies to examine several other factors that impact interrogations and confessions such as investigator biases and the influence of non-coercive techniques (Meissner, Russano, & Narchet, 2010; Narchet et al., in press).

For example, Narchet et al. (in press) investigated whether an interrogator's pre-existing beliefs about the guilt or innocence of a suspect affects their interrogation strategy and the likelihood of eliciting true versus false confessions. In this study, interrogators were not scripted, but rather could apply any combination of 15 different interrogation techniques, including several forms of minimization and maximization. The researchers manipulated the guilt/innocence of the suspect, as well as the interrogators' expectations of guilt or innocence prior to the interrogation (by providing them with information regarding the likely guilt/innocence of participants). Narchet et al. found that the use of minimization and maximization techniques significantly reduced the diagnostic value of the interrogative evidence, and that this effect was exacerbated by interrogators' biases towards perceiving guilt or innocence. Minimization and maximization tactics also influenced participants' perceptions of the interrogation and thereby moderated the likelihood of obtaining true versus false confessions. Specifically, these techniques influence guilty participants' perceptions of proof and feelings of guilt, leading to increased true confessions in such cases. In contrast, minimization influenced innocent participants' perceptions of pressure to confess and therein increased the likelihood of false confessions. These findings are consistent with findings by

Sigurdsson and Gudjonsson (1996) and Redlich and Kulish (2009) that true confessions appear to be the product of “internal” pressures, while false confessions appear to be elicited via “external” pressures.

Taken together, the implication of the previous research might be that police should avoid the use of minimization and maximization techniques. We believe it is unrealistic to think that law enforcement will be receptive to psychological research in this area if our efforts are focused solely on eliminating false confessions and encouraging the prohibition of various interrogative methods. Rather, we seek here to take a more positive approach in which we attempt to identify evidence-based approaches that might improve the diagnostic value of the confessions elicited – focusing here, in particular, on those methods that police use in their everyday practice (see Meissner, Hartwig, & Russano, 2010). To that end, the purpose of this study was to determine whether some minimization and maximization techniques might prove more diagnostic than others. We were interested in assessing whether only *some* of these techniques imply leniency or harsher punishment (thereby lowering diagnosticity by increasing false confession rates) and whether we might be able to distinguish between those techniques that do and do not imply consequences. Specifically, we theorized that minimization and maximization techniques can be divided into two types: those that appear to manipulate a suspect’s perception of the consequences of confessing (i.e., leading the suspect to infer an offer of leniency or a threat of harsher punishment) and those that do not. It should be noted that the distinction between techniques that manipulate the perception of consequences and those that do not is a relative one, as individuals could still believe that certain consequences to confessing exist regardless of interrogation method. Table 1 provides examples of the minimization and maximization techniques used in the current set of studies that were hypothesized to vary the perceived consequences associated with confessing. These techniques were chosen based on the results of an initial pilot study in which participants were asked to sort examples of each technique based upon the degree to which they believed the consequences of confessing (or not) were manipulated.

We conducted a second pilot study to further assess the extent to which the proposed minimization and maximization techniques in Table 1 might manipulate participants’ perceptions of the consequences associated with confession. Ninety-five participants were recruited from the University of Texas at El Paso. Participants were asked to imagine themselves having been accused of committing a crime and finding themselves in an interrogation room. They were then asked to read through a series of statements that an investigator might relate to them in an interrogative context, and to rate their perceptions of the (implied) consequences associated with providing a confession based upon that statement using a scale from 1 = “not harsh at all” to 7 = “very harsh”. As minimization tactics are expected to reduce the perceived consequences associated with confession, we reverse coded these estimates to yield a measure of degree of “manipulation.” Interrogative statements were generated for each of the approaches detailed in Table 1, and participants were randomly assigned to consider themselves either “guilty” or “innocent” of the crime for which they were being interviewed. A 2 (guilt vs. innocence) x 2 (minimization vs. maximization) x 2 (consequences vs. no-consequences) mixed factorial ANOVA demonstrated significant main effects for guilt-innocence,  $F(1,93) = 32.99, p < .001, \eta_p^2 = .26$ , and manipulation of consequences,  $F(1,93) = 7.26, p < .01, \eta_p^2 = .07$ . No significant interactions were observed. As predicted, interrogative techniques believed to manipulate subjects’ perception of the consequences associated with confession yielded significantly greater ratings ( $M_s = 5.13$  vs. 4.72, respectively). In addition, guilty participants perceived a greater degree of manipulation of consequences associated with confession than did innocent participants ( $M_s = 5.98$  vs. 3.86, respectively).

Based upon these pilot data, we conducted two studies examining individuals' perceptions of minimization and maximization tactics that were believed to manipulate perceptions of the expected consequences associated with confession (vs. those that do not), and further to assess whether this distinction might also influence the diagnostic value of confessions elicited by guilty and innocent individuals. In Experiment 1, we examined the social perception of minimization and maximization techniques that do and do not manipulate the perception of consequences for the elicitation of confessions from others versus oneself. Previous survey research indicates that while participants believe that false confessions occur and that certain populations are vulnerable to providing them, they believe that they personally would never falsely confess (Henkel, Coffman, & Dailey, 2008). We wanted to further examine this finding using a design that asked participants to imagine themselves in an interrogation situation. In Experiment 2, we then examined how the use of interrogation techniques that manipulate the perceived consequences of confessing influence the likelihood of obtaining true versus false confessions in an experiential interrogative context (Russano et al., 2005). It was predicted that minimization and maximization techniques that influence the perceived consequences of confessing would elicit less diagnostic information and, in particular, increase the likelihood of a false confession. Based on previous research, it was also hypothesized that participants' perceptions of the interrogation (feelings of pressure, beliefs about the consequences associated with confessing, feelings of guilt, and perceptions of the proof against them) would be associated with participants' decision to confess (Narchet et al., in press).

### Experiment 1

#### Method

**Participants.** One hundred and thirty-eight participants were recruited from undergraduate psychology courses at the University of Texas at El Paso. The sample was mostly Hispanic (74.6%) and female (60%), with a mean age of 24 years.

**Design and procedure.** A 2 (guilty vs. innocent participant) x 2 (interrogation methods that manipulate consequences vs. no consequences) x 2 (own vs. other likelihood of confession) mixed factorial design was used in the present study. Guilt-innocence and interrogation method were manipulated between-subjects, while participants' ratings of own vs. other likelihood of confession were presented as a repeated measure.

Participants were presented with a description of the Russano et al. (2005) paradigm in which two students (A and B) were instructed to solve several logic problems, some of which were to be solved together and some individually. In the guilty condition, participants were told that during one of the individual problems, student A asked student B for help with one of the problems, and that student B responded by providing the answer. Participants in the innocent condition were told that the experimental session went according to the instructions given. In both conditions, participants read that after finishing the set of logic problems, the research assistant entered the testing room, explained that there seemed to be a problem, and separated students A and B. Participants then read an interrogation script in which the interrogation methods were manipulated. In the consequences condition, the research assistant (or "interrogator") employed minimization and maximization techniques that were hypothesized to manipulate the perceived consequences of confessing. In the no manipulation of perceived consequences condition, the research assistant employed minimization and maximization techniques that were hypothesized not to manipulate the perceived consequences of confessing. Table 1 provides examples of each of the techniques used by the interrogator. At the end of both interrogation scenarios, the research assistant asked student B to sign a statement admitting to sharing information on the individual problem. After reading the introduction and interrogation scenario, participants estimated the probability (0-100% scale) that:

(1) they would sign a confession statement if they were placed in that situation and (2) other people would sign a confession statement if they were placed in that situation.

### Results and Discussion

A 2 (guilty vs. innocent participant) x 2 (interrogation methods that manipulate consequences vs. no consequences) x 2 (own vs. other likelihood of confession) mixed factorial ANOVA was conducted. Table 2 provides the mean estimates of confession across cells of the design. Main effects of own versus other confession estimates,  $F(1,134) = 23.58, p < .001, \eta_p^2 = .15$ , guilt-innocence,  $F(1,134) = 104.13, p < .001, \eta_p^2 = .44$ , and interrogation method,  $F(1,134) = 10.75, p < .01, \eta_p^2 = .07$ , were found. Participants who read a guilty script were more likely to endorse confession (across own vs. other estimates) than did those who read an innocent script ( $M_s = 0.51$  vs.  $0.32$ , respectively), and participants believed themselves less likely to confess than others in the same situation ( $M_s = 0.23$  vs.  $0.60$ , respectively). Importantly, participants who read a script that was thought to manipulate the consequences associated with confession were significantly more likely to endorse confession when compared with those reading a script that was proposed not to manipulate perceived consequences ( $M_s = 0.48$  vs.  $0.35$ , respectively).

In addition to the main effects, a significant guilt-innocence x own-other confession x interrogation method interaction was observed,  $F(1,134) = 4.24, p < .05, \eta_p^2 = .03$ . To assess this interaction, separate ANOVAs were conducted for each interrogation method. For the no manipulation of consequences script, main effects of guilt-innocence,  $F(1,67) = 8.22, p < .01, \eta_p^2 = .11$ , and own-other confessions,  $F(1,67) = 62.0, p < .001, \eta_p^2 = .48$ , were found. For the manipulation of consequences script, these main effects for guilt-innocence,  $F(1,67) = 15.97, p < .001, \eta_p^2 = .19$ , and own-other confession,  $F(1,67) = 44.75, p < .001, \eta_p^2 = .40$ , were found as well as a guilt-innocence x own-other confession interaction,  $F(1,67) = 10.86, p < .01, \eta_p^2 = .14$ . The data suggest participants believed that while guilty others would be more likely to confess than innocent others when the consequences associated with confessing were not manipulated, they believed that both guilty and innocent individuals would be equally likely to confess under conditions in which the consequences of confessing were manipulated. When considering whether they, themselves, would confess under these conditions, participants believed that, if guilty, they would be more likely to confess when the consequences were manipulated than compared with the no manipulation condition. If innocent, however, participants rated the likelihood of themselves confessing as low regardless of interrogation method.

Taken together, the results of Experiment 1 indicated that participants perceived the use of manipulative techniques in the interrogation scripts and understood that such techniques may lead (other) people to falsely confess. However, participants failed to recognize the impact of manipulative techniques when estimating their own confession decisions. This finding is consistent with prior research indicating that participants believe that false confessions occur and that people have certain vulnerabilities to false confessions, but that they themselves are relatively immune to such situations (Henkel, Coffman, & Dailey, 2008). It appears that participants may be falling victim to the fundamental attribution error (Ross, 1977) by failing to take into account situational factors, like manipulation of the perceived consequences of confessing, when evaluating their own behavior in the interrogation room. In contrast, they appear to be perceptive to situational factors when considering how other people would react to an interrogation. This finding may also be a result of actor-observer effects (Jones & Nisbett, 1972). When participants are in the role of the observer, they believe other people will not be able to overcome the manipulative interrogation techniques and will confess. However, when placed in the actor role, participants believe they will overcome the situational effects and not falsely confess. In Experiment 2, we moved from

examining the social perception of interrogation techniques to examining the actual behavior of participants in an experiential interrogative context using the Russano et al. (2005) paradigm.

## Experiment 2

### Method

**Participants.** One hundred and thirty-two participants were recruited for the current experiment. Participants were mostly female (65.2%) and Hispanic (88.6%), with a mean age of 19 years.

**Design and materials.** Participants were randomly assigned to one of four experimental conditions based on a 2 (guilty vs. innocent) x 2 (minimization and maximization techniques that manipulate perception of consequences vs. minimization and maximization techniques that do not manipulate perception of consequences) between-participants factorial design.

The manipulation of perceived consequences interrogation script and the no manipulation of perceived consequences script each contained a total of six interrogation techniques; four minimization and two maximization techniques (see Table 1). At the end of the interrogation, participants were asked to sign a confession statement that indicated, "I admit to sharing information on the triangle problem."

After the interrogation phase, participants completed a debriefing questionnaire that included several items regarding their perceptions of the interrogation, including (a) the amount of pressure they felt was placed upon them by the interrogator, (b) their assessment of the consequences associated with confessing, (c) how guilty they were made to feel by the interrogator, (d) their perceptions of the proof of guilt against them, and (e) how severe participants perceived the consequences would be if they admitted to sharing (all 7-point Likert scales). These items were selected given that they were most predictive of confessions in previous research (see Narchet et al., in press).

**Procedure.** Two male and two female undergraduate research assistants were recruited to participate as experimenters/interrogators. All research assistants were trained extensively to ensure that the interview scripts were followed for each participant and that the procedure was identical for each participant. Interrogations were video recorded and assessed to ensure that experimenters adhered to the scripted manipulations.

The procedure was identical to that of Russano et al. (2005). The beginning of the experimental session was identical for all conditions. A female confederate and a participant arrived at the lab at the scheduled experiment time. The testing room was a small, bare room with no windows, similar to what may be used for interrogations in a police station. After obtaining informed consent, the experimenter explained that the purpose of the study was to examine individual versus group decision-making. Once the pair had completed a short rapport-building task, they began the problem-solving phase of the experiment. The experimenter explained that the individual problems were to be completed entirely individually, without any discussion about answers or strategies. The team problems were to be worked on together by sharing information about strategies and answers. Participants were reminded several times about the importance of working together on the team problems and working alone on the individual problems. This instruction served as the critical rule of the experiment.

In the guilty condition, while working on the last individual problem, the confederate feigned difficulty arriving at an answer. After waiting to ensure that the participant had answered the problem, she asked the participant what answer he/she calculated. This gave the participant the opportunity to break the rules of the experiment or "cheat." Participants that did not comply with the request for information in the guilty condition or that attempted to elicit information from the

confederate in the innocent condition were excluded in the analysis ( $n = 16$ ). In the innocent condition, the confederate did not attempt to elicit any information about the problem from the participant.

After the participant and confederate completed the problems and a filler questionnaire, the experimenter explained that he or she had looked over the packets and there appeared to be a problem (note that the experimenter did not actually review the problems in order to remain blind to the condition). The experimenter then asked the confederate to leave the room in order to speak to both of them individually. After five minutes of isolation, the experimenter began questioning the participant about breaking the rules of the experiment by sharing information on one of the individual problems. The experimenter stated that the supervising professor had been notified, and that the professor wanted the experimenter to document the situation. The experimenter also informed the participant that the professor was irritated about the situation and might consider this a case of academic dishonesty.

At this point in the questioning, the experimenter continued with one of the two interrogation approaches, either the manipulation of consequences script or the no manipulation of consequences script. At the end of each of the interrogation scripts, the experimenter asked the participant to sign a statement admitting their participation in the cheating incident. When participants signed the statement, the experimenter thanked them for their cooperation, asked for an explanation of their side of the story, and then exited the room, explaining that someone would be with the participant shortly. When participants refused to sign the statement, the experimenter then went through as many as two abbreviated versions of the script, repeating the same request using different phrases. For those participants who still refused to sign the statement, the experimenter thanked them for their time and exited the room.

Once the experimenter left the room, a lab manager immediately entered the testing room to begin debriefing the participant. The lab manager explained the true purpose and set up of the experiment, explained that the participant was not in any trouble, and that there was no angry professor to face. The main focus of the debriefing was to ensure that the participant understood why the use of deception was necessary and that the participant understood he/she was not in any trouble. Participants provided a self-report rating of how much pressure they felt to sign the confession statement on a scale from 0 to 10, and then completed the debriefing questionnaire described previously.

## Results and Discussion

**Manipulation check.** As previously described, the debriefing questionnaire assessed, among other items, how severe participants believed the consequences would be to admitting to sharing information on the triangle problem on a scale from 1 (extremely severe) to 7 (not at all severe). Participants in the consequences condition perceived that the consequences of admitting to sharing information would be less severe than those participants in the no manipulation of consequences condition ( $M_s = 4.00$  vs.  $3.41$ , respectively),  $t(130) = 1.96$ ,  $p = .05$ ,  $d = 0.34$ , thereby confirming our successful manipulation of the perceived consequences of confessing.

**True vs. false confessions.** A 2 (interrogation method: consequences vs. no consequences) x 2 (guilt vs. innocence) x 2 (interrogator gender: male vs. female) hierarchical loglinear analysis was conducted on participants' decision to confess (sign vs. no sign). While interrogator gender was included as a control variable, no main effects or interactions involving this variable were observed. Confession rates for guilty and innocent participants across the interrogation manipulation are presented in Table 3, along with diagnosticity ratios computed across the interrogation conditions.

Consistent with previous research (Narchet et al., in press; Russano et al., 2005), a significant main effect of guilt was found,  $\chi^2(1) = 50.53, p < .001, L = 2.89$ , such that guilty participants were more likely to confess (89.4%) than innocent participants (31.8%). This main effect, however, was qualified by a significant interrogation method x guilt- innocence interaction,  $\chi^2(1) = 8.48, p < .01$ . To assess this interaction, the effect of the two interrogation methods on guilty and innocent participants was investigated separately. Pairwise comparisons demonstrated that true confessions significantly decreased when the interrogators used techniques that manipulated the suspect's perception of consequences as compared to when interrogators used techniques that did not manipulate the perception of consequences,  $\chi^2(1) = 4.50, p < .05, L = 1.96$ . In addition, false confessions significantly increased when techniques that manipulated perception of consequences were used as compared to when techniques that did not manipulate the perceived consequences were used,  $\chi^2(1) = 3.60, p = .05, L = 1.20$ . It appears that manipulating the perceived consequences of confessing in an interrogation context works to elicit confessions by raising the expected consequences of not confessing but then decreasing these consequences in exchange for a confession. The perceptual contrast effect created by the process of ramping up the consequences and then providing an incentive for confessing appears to have significantly increased the likelihood of a false confession while reducing true confessions. In the next section, we further examine the factors that influence the decision to confess for both innocent and guilty participants.

Diagnosticity was computed as the ratio of true-to-false confessions elicited, with higher ratios indicating a greater likelihood of true (versus false) evidence being elicited in each interrogation condition. Consistent with the trade-off in true versus false confessions across the interrogation manipulation noted above, it appears that techniques that do not manipulate the perceived consequences associated with confessing were 2.37 times more diagnostic than techniques that manipulated participants' perceptions of the consequences.

**Decision making in the interrogation room - predicting true vs. false confessions.** In order to investigate participants' decision making process, the debriefing questionnaire assessed participant's perceptions of the interrogation, including: (a) the amount of pressure they felt was placed upon them by the interrogator, (b) their assessment of the consequences associated with confessing, (c) how guilty they were made to feel by the interrogator, and (d) their perceptions of the proof of guilt against them. Logistic regressions were conducted separately for guilty and innocent participants to assess the associations between these measures and the likelihood of true versus false confessions. Significant regression models were observed for both guilty,  $\chi^2(4) = 16.51, p < .01$ , and innocent,  $\chi^2(4) = 25.49, p < .001$ , participants. Results of the guilty model suggested that true confessions were significantly associated with participants' feelings of guilt,  $\beta = 0.75, Wald = 4.13, p < .05$ , and their perceptions of the proof of guilt,  $\beta = 0.66, Wald = 4.15, p < .05$ . In contrast, the innocent model demonstrated that false confessions were significantly associated with participants' perceptions of pressure,  $\beta = 0.55, Wald = 6.44, p = .01$ , and the expected consequences associated with confessing,  $\beta = 0.54, Wald = 8.39, p < .01$ . Overall, true confessions were more likely when participants experienced internal pressure (feelings of guilt and perceptions of proof), while false confessions were more likely when participants experienced external pressure (interrogative pressure and severity of consequences).

### General Discussion

Previous research has found that the use of minimization and maximization techniques in interrogations can manipulate a suspect's perceptions of the consequences associated with confessing (Kassin & McNall, 1991). Given the association of these techniques with false confessions and reduced diagnosticity of confession evidence (Narchet et al. in press; Russano et

al., 2005), the current study sought to determine whether some minimization and maximization techniques might prove more diagnostic than others by investigating whether those techniques that manipulate the suspect's perception of the consequences of confession are lowering diagnosticity by increasing the false confession rate. Because minimization and maximization techniques represent the most pervasive techniques used by law enforcement, it was important to examine whether certain techniques might prove more diagnostic than others in order to provide evidence-based alternatives to law enforcement agencies.

Across two studies, the use of certain minimization and maximization techniques succeeded in manipulating the perceived consequences of confessing. This manipulation of perceived consequences influenced both participants' beliefs about whether they and others would confess (Exp. 1) and also influenced the diagnostic value of confession evidence elicited from participants (Exp. 2). Participants believed that other people would be more susceptible to falsely confessing when the expected consequences associated with confessing were manipulated, but did not believe this manipulation would influence their own decisions to confess if innocent. However, when actually engaging in an experiential interrogative context (Russano et al., 2005), participants were vulnerable to the manipulation of consequences and were thereby more likely to provide a false confession. A comparison of predicted (self) confession rates (Exp. 1) to actual confession rates (Exp. 2) reveals that while the pattern of likelihood of true and false confessions is similar, participants in Experiment 1 greatly underestimated the likelihood of confession. This suggests that participants are also underestimated the power of the interrogation context. Additionally, tactics that manipulate the perception of consequences proved less diagnostic, as they also reduced the likelihood of obtaining a true confession.

Our assessment of participants' decision processes suggested that the decision to confess was based on different mechanisms for guilty and innocent participants, and that this may have been related to the shifts in true and false confessions observed across our manipulation of interrogative approaches. Specifically, guilty participants were driven to confess based on the perceived amount of proof the interrogator had against them and how guilty they felt about their actions – factors that were emphasized to a greater extent in the “no consequences” condition. In contrast, innocent participants were more influenced by their perception of the expected consequences of confession and the degree of pressure placed upon them to confess – factors that were exaggerated to a greater extent in the “consequences” condition. Thus, it appears that the current manipulation of no consequences versus consequences techniques may have distinguished the placement of pressure on internal versus external mechanisms leading to variation in true versus false confessions, respectively (see also Narchet et al., in press; Redlich & Kulish, 2009). These findings suggest that techniques focusing on the strength of the (true) evidence against a suspect and emphasizing the morality of confession may be more productive for eliciting true confessions, limiting the vulnerability of the innocent and increasing the diagnostic value of the confession evidence.

We believe that further research should similarly seek to identify techniques that will increase the diagnostic value of confession evidence, and importantly those that reduce or eliminate the likelihood of eliciting a false confession. In this study we collapsed across minimization and maximization techniques that do and do not manipulate perception of consequence; it is possible, however, that minimization techniques that do not manipulate perception of consequences may be more diagnostic when used in isolation as compared to when these tactics are paired with maximization techniques. Moreover, there may be other important dimensions within minimization and maximization techniques (e.g., level of rapport established or tone of the interview) that

researchers could further assess. It is important that we develop a better theoretical and practical understanding of these techniques, including the various psychological mechanisms (e.g., internal vs. external sources of pressure) that result in true versus false confessions.

Given the importance of presenting diagnostic evidence in criminal trials and the significant costs associated with false confessions, there are practice and policy considerations that relate to the present findings. Under current U.S. interrogative practice, all of the techniques tested in this study are legally permissible. Based on our findings, however, the continuing use of some of these techniques may be detrimental to the goal of eliciting true confessions while at the same time placing innocent persons at greater risk. Fortunately, based on the results of this study, for the first time we can now offer more precise recommendations about which minimization and maximization techniques might be best to avoid and which might be advocated. By simply avoiding the subset of techniques that manipulate the perception of consequences and increase “external” pressure to confess (see Table 1), and focusing instead on other minimization and maximization techniques that place “internal” pressure on suspects, law enforcement could significantly improve the diagnostic value of their interrogations. We encourage additional research along these lines, such that we might ultimately provide law enforcement with positive, evidence-based practices that will improve the outcomes of most interest to the criminal justice system (see Meissner, Hartwig, & Russano, 2010; Meissner, Russano, & Narchet, 2010; Narchet et al., in press).

The recent DNA exonerations have revealed the important role of false confession evidence in leading to wrongful conviction. Researchers have begun to examine factors that lead to false confessions and have found that the use of minimization and maximization techniques contribute to the false confession phenomenon (Kassin & McNall, 1991; Kassin & Kiechel, 1996; Klaver et al., 2008; Narchet et al., in press; Russano et al., 2005). The current studies were the first to directly distinguish between the various forms of minimization and maximization that are commonly used – separating those that do and do not manipulate a suspect’s perception of the consequences associated with confession. Importantly, our studies found that such a distinction between minimization and maximization techniques can significantly influence the diagnostic value of interrogative evidence. Although these techniques do not eliminate the likelihood of eliciting a false confession, we believe that our results begin to provide an evidence-based perspective that could assist law enforcement in determining what really works in an interrogation room. We urge researchers to focus on identifying interrogative methods that improve the diagnostic value of confession evidence when designing future research studies.

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Table 1

*Minimization and Maximization Techniques that Vary and Do Not Vary the Perceived Consequences of Confession*

	Minimization	Maximization
Consequences	stress benefit of cooperation downplay consequences face-saving excuses minimize seriousness of offense	exaggerate consequences co-conspirators against each other
No Consequences	express sympathy assume friendly demeanor boost ego/use flattery appeal to conscience	assume unfriendly demeanor firm belief in guilt

Table 2

*Rated Probability of Self vs. Others Confessions as a Function of Interrogation Method*

		Self	Others
Consequences	Guilty	0.50 (0.51)	0.69 (0.21)
	Innocent	0.09 (0.28)	0.64 (0.25)
No Consequences	Guilty	0.26 (0.44)	0.60 (0.24)
	Innocent	0.06 (0.24)	0.47 (0.26)

Note: Standard deviations are provided in parentheses.

Table 3

*True and False Confession Rates and Diagnosticity Ratio by Interrogation Method*

<i>Condition</i>	<i>True Confessions</i>	<i>False Confessions</i>	<i>Diagnosticity Ratio</i>
Consequences	81.8% (27)	42.4% (14)	1.93
No Consequences	97.0% (32)	21.2% (7)	4.58

Note: N = 33 for each cell. Frequencies are provided in parenthesis.