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SHOCK VALUE OF FALSE CONFESSIONS: GENDER DIFFERENCES IN
INTERROGATIVE SUGGESTIBILITY, AS THEY PERTAIN TO THE
ELICITATION OF FALSE CONFESSIONS

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Abstract

Confessions may be one of the most powerful weapons a prosecutor could be handed in the courtroom. In fact, jurors almost always convict defendants that have confessed. (Costanzo & Krauss, 2012). However, the importance placed upon confessions has been questioned. According to Appleby et al.'s (2011) empirical analysis on confessions "Although confessions from perpetrators help to solve crimes in an efficient manner, the false confessions of innocents are a known contributing factor in approximately 25% of all DNA exoneration cases." Many factors contribute to this, including certain interrogation techniques, extreme pressure and distress, the presence of leading questions, and age and intelligence of the accused. Another factor that has been examined is the suggestibility of the accused. The higher the level of suggestibility of a person, the more likely they are to take responsibility for something that he or she did not do (Redlich & Goodman, 2003). There has also been evidence to suggest that there may be gender differences in suggestibility, though the research in this area is limited (Calicchia & Santostefano, 2004). The purpose of this study is to further examine the possibility of gender differences in suggestibility and how this may relate to false confessions. There were 39 participants, 17 M and 22 F. Each participant was led to believe that s/he was having his/her heart rate monitored by another participant, a confederate, while they are administered the suggestibility scale. The participant will then switch places with the confederate and attempt to monitor his/her heart rate. The participant will then be led to believe that s/he pushed a wrong button and slightly shocked the other person. The participant will then be asked to sign a form stating that s/he did indeed press the button, and then afterwards fill out a scale reporting how much he/she believes the confession is true. Suggestibility scores will be recorded, as will whether or not the person "confessed", and the self-reported level of belief. It is hypothesized that females will be significantly more likely to falsely confess, and that suggestibility will indeed play a part in the gender differences.

Introduction

“A confession is like no other evidence. Indeed, ‘the defendant’s own confession is probably the most probative and damaging evidence that can be admitted against him...confessions have profound impact on the jury, so much so that we may justifiably doubt its ability to put them out of mind even if told to do so.”

--Supreme Court

Confessions may be one of the most powerful weapons a prosecutor could be handed in the courtroom. It is the closest that a prosecutor can get to a guaranteed conviction—jurors almost always convict defendants that have confessed (Costanzo & Krauss, 2012); in fact, jurors are more likely to convict due to the presence of a confession than any other piece of evidence. According to Costanzo and Krauss, this was supported by Kassin and Neumann’s study in 1997. In that specific study, mock jurors were told to read summaries of theft, assault, rape, or murder crimes for which each trial contained weak circumstantial evidence, plus one of the following: confession, eye witness testimony, or character witness. The presence of a confession led to the highest conviction rate, by far—73% of the summaries that contained a confession, the mock jurors chose to convict. This is substantially higher than the 59% conviction rate for summaries containing eyewitness testimony, which was the next strongest predictor (p. 31). It is not only jurors that confessions have such an effect on either—police prefer confessions to any other form of evidence. In the present criminal justice system, confessions are powerful enough to stop all additional investigation and to begin the prosecution process and possible conviction of the confessor (Appleby, Hasel, & Kassin, 2011). This saves time, can possibly avoid a trial, and can streamline or circumvent the collecting and analyzing of physical evidence. Confession rates are surprisingly high, as well—39-48% of suspects will make a full confession when they are

interrogated; an additional 13-16% of suspects make damaging statements or partial confessions (Costanzo & Krauss, 2012, p.31). Most of these confessions do not come spontaneously from the defendant, so it is up to the interrogator to elicit a confession statement. This, combined with the importance of the confession, creates great demand on the police—consequently interrogation techniques have become increasingly sophisticated. Many police departments use a manual called “Criminal Interrogation and Confession”. The manual, controversially, suggests the use of tricks, deceptions, and lies to elicit confessions. These extreme measures are, in large part, due to pressure from the public to find the perpetrator of each crime,” (Wrightsmann, Greene, Nietzel, & Fortune, 2002).

The importance placed upon confessions has been questioned. Although confessions from the accused help to solve crimes quickly and efficiently, the confessions themselves are not always as sound as they appear. In an effort to solve the crime and put the public at ease, sometimes the wrong person is apprehended, and the confession obtained is false. One such case is the conviction of Jeffrey Deskovic, age seventeen at the time, who was convicted of the rape and murder of his fifteen year-old classmate.

This sobering story is recanted in “Convicting the Innocent” by B. L. Garrett. Deskovic stepped into the scope of the investigation by offering to help police to solve the crime. He was taken to police headquarters for questioning, where he promptly waived his Miranda rights. Deskovic was questioned several hours at a time, some of it recorded and some of it not. The questioning became increasingly aggressive—interrogators confronted him with the accusation that it was he who was the perpetrator. After long hours of questioning, Jeffrey purportedly began to offer up details that an innocent person would not have known. According to the detective, Deskovic drew up diagrams of never released crime scenes that were extremely

accurate, and knew details about where the victim was beaten, raped, and found. After an extended polygraph examination, which he was led to believe that he failed, and increased pressure from the interrogators, Jeffrey ended up collapsed on the floor crying, and subsequently confessed (Garrett, 2011).

Garrett's book alludes to the fact that, on the surface, the confession made it seem to be a clear cut case. The judge presiding over the case held the standard "voluntariness" hearing on his confession and deemed it admissible in court, and the interrogation tactics, questionable though they may seem, were labeled as lawful. There was one problem though: the only thing connecting the accused to this heinous crime was this unstable confession. In fact, there was even forensic evidence that surfaced before the trial even began that pointed to his innocence. The DNA found on the girl did not match Jeffrey Deskovic. The jury was told to ignore this fact, however, and the DNA evidence explained away with the argument that the victim was "probably sexually active", though no steps were taken to further investigate this theory, and in spite of all evidence to the contrary, Deskovic was convicted. Sixteen years later he was exonerated by further DNA evidence—the man had been innocent all along. When asked why he confessed, Deskovic stated that "Believing in the criminal justice system, and being fearful for myself, I told them what they wanted to hear." (Garrett, 2011)

Such an occurrence may seem unlikely, but is much more common than is generally thought. In fact, according to Appleby et al.'s (2011) empirical analysis on confessions, false confessions from innocent people have contributed to approximately 25% of the first 250 DNA exoneration cases. The question is, what leads to such a phenomenon and how can it be avoided?

Several interrogation techniques have been said to increase the risk of false confessions. Among these are extreme pressure on the accused to confess, denial of food and water, feeding

facts to the accused, and minimization/maximization. ‘Feeding the facts’ consists of asking the accused leading question or suggesting correct answers to him/her. People who are very suggestible or mentally unstable/handicapped are very susceptible to this technique—Ada JoAnn Taylor is a prime example.

Also in “Convicting the Innocent” is the story of woman named Ada Taylor. Ada JoAnn Taylor was one of the accused in the “Beatrice Six” case, the rape and murder of an elderly woman in Beatrice, Nebraska. Not only did Taylor falsely confess to committing the crime, she also testified against another of the accused, Joseph White, who was also innocent. Taylor is a woman diagnosed with a “personality disorder”, who openly testified that she had problems with her memory and that she had some mental telepathy capabilities. She also openly admitted that the police had suggested certain facts to her and that she had not been able to remember much of the murder until after she had talked to the police. Despite the obvious unreliability of the source, and also the obvious contamination of the confessions, the jury still chose to credit her statements. Joseph White was convicted and served nineteen years in prison until he was exonerated through DNA evidence. The other five accused were later exonerated as well (Garrett, 2011).

The minimization/maximization technique, on the other hand, is quite a different approach, analogous to the ‘good cop/bad cop’ routine. Minimization is comprised of a friendlier, sympathetic approach which alludes to a false, implied leniency. The interrogator pretends to be on the accused’s side, and may employ such strategies as making the crime sound more excusable, such as saying the accused did kill the victim, but that it was probably just in self-defense. Other examples include blaming the victim, providing the accused with excuses, and generally minimizing the seriousness of the crime. He/she may also imply the possibility of

leniency if the accused would cooperate and confess. Maximization is the opposite, and is used as a scare tactic. Examples of maximization include aggressiveness, telling suspects that there is physical evidence linking them to the crime when there is not, exaggerating the consequences, and threatening punishment. These techniques have been shown to manipulate the accused's perceptions of the situation and the consequences involved with confessing or refusing to confess (Horgan, Russano, Meissner, & Evans, 2012).

The power of a confession, whether false or true, lies not in the mere admission of guilt, but in the specific details that flesh out the confession (Garrett, 2011). 'Insider information' plays a large role in this category. The presence of any details about the crime that have not been released to the public make the confession appear much more incriminating. In Appleby, Hasel, and Kassin's analysis of twenty false confessions, the most common details included in the confessions were time and location of the crime, visual details from the crime and/or crime scene, and a reference to the victim and his/her behavior throughout the crime. Other content within false confessions that reinforces the perceived guilt of the confessor is remorse or sorrow about "having committed the crime" of which he/she is actually innocent, an apology for allegedly committing the crime, and even feelings that were being processed at the time of the crime, such as rage or jealousy. The provision of a motive also greatly reinforces the apparent validity of the confession (Appleby et al., 2011).

Not only is it more common than once believed to obtain a false confession, it is also extremely hard for the false-confessor to receive a fair trial once having confessed. Several studies have looked at jurors' capability to discount coerced confessions once the confession is struck from evidence. In Kassin and Sukel's study, mock jurors read transcripts involving no confession, low-pressure confession, or high-pressure confession. The 'jurors' had no problem

identifying the high-pressure confession as coerced, and stated that they would not consider it when deciding a verdict. However, the results showed otherwise. The mock jurors still convicted the high-pressure confessors 50% of the time—much higher than the 19% conviction rate for transcripts that contained no confession.

The danger does not stop at simply making the confession. There is also an inability to challenge the verdict once convicted. In a judicial review of false confessions, 28 out of 29 false confessors made a challenge—unsuccessfully. The confession seemed to be too convincing. Also, judges are reluctant to rule that a confession cannot be heard (Garrett, 2011).

There are three types of false confessions: voluntary, coerced-compliant, and coerced-internalized. Voluntary false confessions are not made as a result of external pressure. Coerced-compliant false confessions are a direct result of external pressure. They are also an attempt to either appease an authority figure, avoid or escape an unpleasant situation, or obtain a reward. The accused does still believe himself/herself to be innocent, however. Coerced-internalized refers to confessions that are elicited as a result of external pressure, but, unlike coerced-compliant, the accused has actually come to believe that s/he may have committed the crime (Candel, I., Merckelbach, H., Loyen, S., & Reyskens, H., 2004). The last two versions of false confessions seem as if they would be extremely unlikely, especially the second, so it leads researcher to wonder: how does it happen so frequently? One factor that contributes to this is interrogative suggestibility (Hansen, I., Smeets, T., & Jelicic, M., 2010).

Interrogative suggestibility is defined as “the extent to which, within a closed social interaction, people come to accept messages communicated during formal questioning, as a result of which their subsequent behavioral response is affected,” (Candel et al., 2004).

False confessions have been seen to be highly correlated with high levels of interrogative suggestibility, meaning that suggestible persons may be more likely to confess to a crime that s/he did not commit (Merckelbach, H., Muris, P., Wessel, I., & Van Keppen, P., 1998; Hansen et al., 2010; Gudjonsson, G. H., 1984; Redlich, A. D. & Goodman, G. S., 2003). According to Gudjonsson, there are two types of interrogative suggestibility: the susceptibility to suggestive or leading questions, and the susceptibility to interpersonal pressure. Within an interrogation setup, insider information can be planted—whether accidentally or purposefully—into a person’s testimony in at least two different ways that directly correlate with these two types of interrogative pressure. The first is that if the questions are suggestive or leading (i.e. containing false premises, false alternatives, or questions conveying certain expectations). Leading questions have a distorting effect on responses, therefore causing the testimony to be less accurate (Gudjonsson, 1984). Gudjonsson states that the second way is through suggestive or misleading instructions. This can be in the form of criticism, negative feedback, a prompting to change answers, etc. These can also distort responses, by distorting the accused perception of the situation. They may view the situation as more dangerous, or begin to see confessing as a ‘way out’ (Gudjonsson, 1984).

One important result of the knowledge of the influences of interrogative suggestibility is the increased capability to spot someone susceptible to influence, and hopefully the increased capability to spot false confessions before they are admitted into the courtroom. The higher the level of interrogative suggestibility, the more likely the accused is to be swayed by these leading stimuli—this much has been established. Within suggestibility, however, there are other factors that contribute to likelihood of falsely confessing. Among others, gender seems to be one of these factors. Previous research has led to the conclusion that women may be more likely to

falsely confess. One such study is Gudjonsson and Sigurdsson's 1994 self-report study of Icelandic prisoners. Out of the 12 percent of prisoners who claimed to have made false confessions to police, there was a higher proportion of women than men (Jones, S., 2011). Further expanding this concept is the research exploring gender differences in interrogative suggestibility, which, as has been established, is a known factor contributing to false confessions. Though the literature has yielded mixed results about whether or not there is a statistically significant gender difference, results seem to point to a trend of higher levels of interrogative suggestibility in women (Calicchia, J. A. & Santostefano, S., 2004).

The purpose of this study is to further examine the gender differences in both false confessions and interrogative suggestibility levels. It has been hypothesized that women will have a higher confession rate than men, accompanied by higher suggestibility levels in women than in men. It has been further hypothesized that the gender differences in suggestibility level is responsible for the gender differences in false confessions—in other words, gender differences in false confessions will disappear when controlling for level of interrogative suggestibility.

Method

Participants

This study consisted of 39 students, 17 male and 22 female, of traditional college student age, found as a result of convenience sampling. Some were recruited from the pool of students enrolled in the Introduction to Psychology class. The others were recruited from the general student body via an email sent out to all psychology majors.

Materials

A suggestibility scale was developed for this study, using the Gudjonsson Suggestibility Scale (GSS) as a foundation and modernizing the language. The modified GSS was comprised of a short story, containing 40 distinct ideas, and a set of 20 questions. Five of the questions are straightforward and non-leading. The other fifteen were (mis)leading questions of three different varieties: leading questions, which contained one or more premises that create an expectation of a certain type of answer, affirmative questions, which contain no premise, but create doubt in the subject's mind and could lead them to an affirmative answer, and false alternative questions, where both alternative answers are incorrect (Gudjonsson, 1997), (See Appendix A). The set of questions will have to be filled out twice, each at a separate time. A heart rate monitor will be used in this study as a prop to make the scenario more convincing. Three different male confederates were employed in this study to act as another participant.

Procedure

Each participant was told that the purpose of the present study was to measure stress reactions to testing situations, and how this affects memory. Participants were signed up for half hour testing time slots were brought into a small room individually. A confederate was brought into the room at the same time, posing as another participant. Each testing session lasted no longer than 20 minutes.

The subject was asked to be 'participant 1' and therefore recorded first. A heart rate monitor was attached at this point, with an electrode on each wrist and one on the left ankle. The monitor was hooked up to a laptop, where heart rate could be seen (though not recorded) to further increase believability of the situation. The confederate was given instructions in front of the participant to 'observe participant 1's heart rate and record the times of any noticeable

changes in rate.’ S/he was given a pen and paper with which to do so. The confederate was also plainly told that s/he had to maintain contact with the Biopac ‘remote’ because it was ‘heat sensitive and would shut off after two and a half minutes if not being monitored.’ S/he was firmly told that it was necessary to keep his/her thumb on top of the button in the middle of the remote, but not to push it. Reasoning given for this was that ‘because the Biopac is designated for educational purposes, it also has the capability of simulating a heartbeat. Pressing the button would switch modes and reverse the flow of electricity, and the person attached to the electrodes would receive a small shock. This, of course, was not the case, and the confederate was completely safe from harm.

The participant was then administered the suggestibility scale. He or she was first read the short story. Immediately after hearing the story, s/he was asked to recall all that s/he could about the story. The participant was then asked the first set of 20 questions, answers to which were recorded verbatim by the investigator to be scored later. The number of (mis)leading questions answered with anything other than a variation of ‘No’ or ‘I don’t know’ was Yield 1. Non-leading questions were recorded, but not to be included in yield scores. The participant was then firmly told that s/he had answered most of the questions incorrectly and that the set of questions would be repeated. They were advised to listen closely and answer to the best of their ability. The number of (mis)leading questions answered with anything other than a variation of ‘No’ or ‘I don’t know’ on this second time around was Yield 2. The number of answers (including non-leading questions) that the participant changed from the first set of questions to the second set of questions was labeled as Shift.. The entire time the participant was answering the questions, the confederate was ‘monitoring heart rate.’

Next, the participant and confederate were asked to switch places and tasks. The confederate was hooked up to the heart rate monitor, and the participant was asked to observe heart rate and record any noticeable differences in rate. The instructions about not pressing the button were repeated to the participant. The investigator then proceeded to read the short story to the confederate. At a designated word at the end of the third sentence ('Carla'), the confederate was to act as if s/he had received a small shock, even though the participant had presumably not pressed the button. At this point the investigator stopped the study to ask what had happened. The confederate claimed to have received a small shock. At this time, the investigator turned to the participant and asked whether or not s/he had pushed the button. If the participant denied responsibility, the investigator responded with 'well, unfortunately this machine would not have done that unless the button was pressed.' Participants were then fed a fictional story of a previous attempted lawsuit, involving a past participant being shocked by a different, more powerful machine, and suing the university (see Appendix B). S/he was told that it was now standard procedure to have the participant sign a 'Release of Responsibility' form, taking responsibility for the act, and removing blame from the university. This was the 'confession' document. The participant's decision to sign or not sign was recorded. The participant was then asked to self-report on a scale of 0-100 how certain s/he was that s/he had pushed the button. This was labeled as 'level of internalization of the confession' meaning that it was to measure how strongly the participant actually believed that s/he had indeed pressed the button. The participant was then fully debriefed and all forms of deception were explained to him/her.

Results

A person's suggestibility level was measured in three different parts: Yield 1, Yield 2, and Shift. Yield 1 was the number of leading questions (0-15) out of the first set that the

participant answered with anything other than a variation of 'No' or 'I don't know', measuring the participant's susceptibility to suggestive questions. Yield 2 was the same as Yield 1, except that it involved answers to the second set of questions instead of the first set of questions. This was also scored as 0-15, and measured the participant's susceptibility to leading questions after interrogative pressure had been applied. Finally, Shift was the number of answers (0-20) that the participant changed from set one to set two, which directly measured the participant's susceptibility to interrogative pressure (i.e. being told that his/her answers were incorrect and that some needed to be changed). Total Suggestibility was calculated as the sum of Yield 1 and Shift. Whether or not the participant 'confessed' by signing the provided document was also recorded.

In order to be in line with previous research, we expected that participants who confessed would have a higher level of suggestibility in all three areas. This expectation was tested using a series of t tests for independent means, and was not supported. Those who confessed did not have: significantly higher Yield 1 scores ($M = 9.09$, $SD = 2.356$) than those who did not confess ($M = 9.25$, $SD = 2.217$), $t(37) = -.133$, $p > .05$; significantly higher Shift scores ($M = 6.43$, $SD = 3.415$) than those who did not confess ($M = 6.75$, $SD = 1.708$) $t(37) = -.184$, $p > .05$; nor significantly higher Total Suggestibility scores ($M = 15.57$, $SD = 3.783$) than those who did not confess ($M = 16.00$, $SD = 2.944$) $t(37) = -.218$, $p > .05$.

Likewise, a t-test for independent means was performed to determine whether there were significant differences in suggestibility scores between men and women, as the first part of the hypothesis in the present study stated that women would have a higher level of suggestibility than men. However, women did not have: significantly higher Yield 1 scores ($M = 8.82$, $SD = 2.557$) than men ($M = 9.47$, $SD = 1.972$), $t(37) = .870$, $p > .05$; significantly higher Shift scores

($M = 6.09$, $SD = 3.741$) than men ($M = 6.94$, $SD = 2.561$) $t(37) = .802$, $p > .05$, nor significantly higher Total Suggestibility scores ($M = 14.91$, $SD = 3.927$) than men ($M = 16.53$, $SD = 3.204$) $t(37) = 1.382$, $p > .05$. This part of the hypothesis was not supported.

Also to be in line with previous research, it was expected that confession rates would be significantly higher for women than for men. In order to test this expectation, a Fisher's Exact test was run to determine if confession rates were significantly higher for women than men. The Fisher's Exact test showed that the confession rate for women was not significantly different than the confession rate for men, $p = .227$, the odds ratio is 1 / 4.45. However, it does appear that results were approaching this effect—nearly 18% of males refused to confess, whereas only 4% of females refused to confess. Also, it is important to point out that the styles of refusal were much different. All three males that did not confess firmly refused to sign, were not at all questioning whether or not they had pushed the button, and were extremely suspicious of the form. The one female that did not confess, however, was much less certain, and merely asked if she had to sign. Upon being told that she was not being forced to do anything, she only then decided not to sign.

A Fisher's Exact test was also run on gender and rate of confessing, while trying to control for suggestibility levels. For this purpose, suggestibility scores were recoded as a trichotomous variable, low ($L = 1-12$), moderate ($M = 2-24$), or high ($H = 25-35$) and each group was tested separately. There were 8 low suggestibility, 31 moderate suggestibility, and no high suggestibility. This also produced no significant results.

In order to determine if there were any gender differences in level of internalization of the confession, an analysis of covariance was performed, controlling for suggestibility level. Gender showed no effect even after adjusting for suggestibility score, $F(1, 31) = .119$, $p = .732$.

Discussion

The present study was conducted to investigate the role of interrogative suggestibility levels in false confessions, and how gender differences play into this role. Results from the current study can be summarized as follows: while there were no significant results, data seemed to be approaching the trend of higher female confessions rates than male confession rates, which was the first premise of the hypothesis. However, as for the second part of the hypothesis, suggestibility level did not seem to be the cause for these gender effects. There were no significant differences in suggestibility levels between genders—in fact, in the present study, male suggestibility levels were actually higher than female. Suggestibility level did not appear to predict likelihood of falsely confessing either, though this may have simply been due to the small sample sizes, and extremely small number of non-confessors.

It is important to note that there are many possibly confounds to this study. It is close to impossible to conduct research on false confessions and criminal acts that is both generalizable and internally valid, while staying within ethical boundaries—in other words, the participant may not be led to believe that he/she committed a heinous crime. The faux crime used in paradigms such as the one in this study must be relatively low stress, in order to ensure that there be little or no risk to the participant. The level of social and interrogative pressure applied to the participants in this study is also much different than the pressure that would be applied in a criminal interrogation setting, as are the impending possible consequences. However, even still, the false confession rate was higher than was expected.

Another important factor to note is that the investigator was fully aware that each participant was supposedly innocent, whereas, in the situation in which suspects usually falsely confess, interrogators oftentimes believe the accused to be guilty. This may change the nature of the interrogation subtly—the overall tone, body language, choice of words, or level of pressure applied may have been different because he/she was not convinced that the accused was guilty and lying. In contrast, there is the possibility that not all of the participants were technically innocent. Pressure on the button was not recorded, nor were the participants videotaped, so the button may have actually been pressed at some point.

Time constraints posed an obstacle as well. Participants could not be realistically kept for long periods of time, due to class schedules and ethical boundaries, so the pressure due to lengthy interrogations was missing. Also, there was no ethical way to convince participants that they were unable to leave, so this posed a possible decrease to the pressure on the participant. Another effect of time constraints, and the limited access to resources, resulted in the use of not one male confederate, but a combination of three. Different personal characteristics, mannerisms, or methods of acting may have had a small effect.

On the other end of the spectrum, according to Gudjonsson, after being administered the first set of questions, the participants have no way to be certain of how well they have done, or which questions they may have gotten wrong. He claims that this is likely to cause anxiety and insecurity, which might temporarily heighten the participants' susceptibility to suggestion (1984).

There were some variations in methodology from Gudjonsson's standard procedure. Only undergraduate students were tested in this study, as opposed to the general population used in calculating Gudjonsson's norm scores. This limits the variation in suggestibility that may have

been found if the age range was broader and encompassed both college age students and more mature adults. Another deviation from Gudjonsson's method was that no time delay after the story and before the questions was employed due to time constraints. However, according to Hansen, Smeets, & Jellicic,(2010) previous research has shown that this does not affect total suggestibility scores, so this should not have altered the data. The information did seem too fresh in the participants' mind to cause much uncertainty, so including at least some delay or filler task may be wise.

As far as future research is concerned, there are many possibilities for modifications of this study's paradigm. In subsequent studies, the use of explicit consequences should be implicated. This may have been a factor in the high rate of confessions in this study—there was no obvious reason not to confess. It may be that rates would be much lower in a study that added an element of consequence, such as 'the confession slips will be sent to a professor who will then determine whether or not course credit will still be given for this study' or 'you may be held liable for any damages caused to this machine through improper use'.

Such as in Redlich and Goodman's study in 2003, it may have been beneficial to use a different method of obtaining internalization data. The investigators in this study obtained level of internalization by sending in a confederate as a 'passerby' that asked what had happened. If the participant gave an answer that implied responsibility (as in "I did this, and it caused this,") it was categorized as total internalization. If he/she gave an uncertain answer, such as "I don't know what happened, I might have caused it," , then it was categorized as a partial internalization, and if they did not take responsibility at all, it was no internalization. This method may have been a little more clear cut and reliable than self-report percentages, as was used in the present study. Many participants took responsibility for the action, or completely

believed that the confederate had been shocked and that therefore they must have pushed the button, but when asked percentage of certainty, they gave low percentages. This did not accurately reflect whether or not they believed they had pressed the button—just how aware of pressing the button they were.

The present study was an attempt to further understand the process through which innocent people confess to acts that they did not do and the factors that go into that false confession. Though, we found no significant gender differences, there do seem to be some effect on the rate of confession due to gender. The sample in this study seemed to have significantly higher suggestibility levels than general population rates, whether due to a flaw in the paradigm or a trait in this sample of the population, so detecting differences in confession rates between levels of suggestibility was difficult. The rate of false confessions in this sample was disturbingly high. Future research in this area is quite important in order to develop more fool-proof methods of interrogation that do not endanger the innocents.

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Appendix A

Modified GSS Story

John and Anna were a happily married couple in their thirties. They had three children, two boys and a girl. They lived in a small three-bedroom house with a swimming pool and a garden for Anna. John worked in a bank and Anna was a nurse along with her sister Carla. One hot Tuesday morning in July, the couple were leaving the house to go to work when they saw a small boy on a bike going down the steep hill in front of their house and yelling for help. Anna and John ran after the boy and John grabbed onto the bike and stopped it. The boy appeared to be scared, but unhurt, and said that the brakes on his bike had given out. Anna and John recognized the boy, whose name was Adyn. He was the neighbors', who worked for a travel agency in a nearby town, youngest son. Sometimes, during the winter, the two couples had gone skiing together, but the kids from both families had wanted to stay back with their grandparents who lived in the country.

Questions

1. Were the couple's names John and Anna? (NL)
2. Did the couple have a dog or a cat? (L)*
3. Did the boy's bicycle get damaged when it fell on the ground? (L)
4. Was the husband a bank director? (L)
5. Did the couple live in a three-bedroom home? (NL)
6. Did the boy on the bicycle pass a stop sign or traffic lights? (L)*
7. Was the boy frightened of the big van coming up the hill? (L)
8. Did the boy have some minor bruises as a result of the accident? (L)
9. Was the boy's name Adyn? (NL)
10. Did the boy drop the books he had been carrying whilst riding the bicycle? (L)
11. Was Anna worried that the boy might be injured? (L)
12. Did John grab the boy's arm or shoulder? (L)*
13. Did the couple recognize the boy? (NL)
14. Did the boy commonly ride the bicycle to school? (L)
15. Was the boy taken home by John or Anna? (L)*
16. Was the boy allowed to stay away from school on the day of the accident? (L)
17. Did the couple's children sometimes stay with their grandparents? (NL)
18. Was the boy frightened of riding the bicycle again? (L)
19. Was the weather wet or dry when the accident happened? (L)*
20. Did the couple have a skiing cottage in the mountains? (L)

Key: NL = non-leading question; L = leading question; * = false alternative type of leading question

Appendix B**Release of Responsibility**

I, _____, certify that I was the person responsible for the pushing of the button that resulted in a distribution of shock. I confirm that this was not an intentional act and was purely accidental. I am not employed by the university and understand that Eastern Illinois University may not be held liable for any damages to myself or the other party.

Signature

Date