Mock-suspects’ Decisions to Confess: The Accuracy of Eyewitness Evidence is Critical

MARK R. KEBBELL*, EMILY J. HURREN and SHANNON ROBERTS

Griffith University, Australia

SUMMARY
Forty participants were asked to commit a mock-crime that involved them stealing a cell-phone. Later the mock-offenders were questioned and evidence was presented to them from a witness who was said to have seen the offence. Participants were randomly assigned to one of two conditions in which they were presented with a witness statement that either contained detailed information concerning their description and their actions, or not-detailed information. For half the participants in each condition the information was correct, while for the other half some of the information was incorrect. The results show that participants were more likely to confess if the evidence against them was accurate, but the level of detail of the evidence made no difference. Participants who had accurate evidence presented against them felt more guilty than those who had less accurate evidence against them. The results are discussed in relation to police interviewing techniques.

An offender confessing to an investigator has two important advantages to the Criminal Justice System. First, the likelihood of a conviction being secured is greatly increased (Cassell, 1996; Gudjonsson, 2003; Leo, 1996). Second, the likelihood of a victim or witness having to give evidence in court, and the negative impact that this can have, is reduced (Epstein, Saunders, & Kilpatrick, 1997; Mackey et al., 1992).

Evidence appears to be a critical factor in suspects’ decisions to confess or deny an offence. For example, Moston, Stephenson, and Williamson (1992) investigated confession rates for 1067 suspects who had been interviewed by detectives. Their results showed that when the evidence against the suspect was weak, confessions occurred less than 10% of the time, and denials occurred 77% of the time. When the evidence was strong confessions were frequent, occurring in 67% of cases, while denials were infrequent, occurring in 16% of cases. Similarly, Gudjonsson and Petursson (1991) surveyed 74 Icelandic prisoners who had admitted to their crimes. The most frequently rated reason for confessing, given by 55% of respondents, was the belief that the police would eventually be able to prove what they had done while 40% responded that guilt had been a major factor (see also, Gudjonsson & Bownes, 1992; Gudjonsson & Sigurdsson, 1999, 2000; Holmberg & Christianson, 2002; and for juveniles Viljoen, Klaver, & Roesch, 2005). Taken together, the implication of these studies is that perception of the...
strength of the evidence against them has an important influence on suspects’ decisions to confess or deny.

Nevertheless, a problem with both the self-report studies, and the field study is that they are correlational in nature. Thus, they do not allow causal relationships to be explored. Potentially, a confound could be responsible for the increases in confession rates associated with increases in evidence. For example, the police officer may adopt a more relaxed and supportive tone when he or she believes the evidence against the suspect is strong, and this, rather than the evidence itself, may lead to the increased confession rate. To our knowledge, no one has experimentally manipulated in a laboratory setting, how evidence may influence a suspect’s decision to confess to a crime they have committed (though for an example of an experimental model for false confessions see Kassin & Kiechel, 1996, and for a test of the effects of minimization see Russano, Meissner, Narchet, & Kassin, 2005). Thus, it appears worthwhile to create a laboratory model of a suspect’s decisions to confess or deny, in order to shed light on how evidence can influence these decisions.

This raises the issue of what suspects perceive to be strong evidence. Research with mock-jurors shows that the addition of peripheral details to an eyewitness’ account to produce a more detailed account, increases jurors’ perceptions of the strength of evidence against a defendant (Bell & Loftus, 1988, 1989). Potentially, presentation by police officers of additional peripheral witness information may increase a suspects’ perception of the strength of the evidence against them. Participants may rationalize that the more detailed account represents stronger evidence against them and that they are likely to be convicted and so may as well confess. Accuracy of evidence may also play a critical role. If witness evidence is presented to a suspect that the suspect knows to be incorrect, this inaccurate evidence may reduce his or her willingness to confess. Potentially the offender may believe that he or she can prove the evidence is inaccurate, or that a jury will also be aware that the evidence is inaccurate, and so be unlikely to convict him or her. In turn, this may make suspects reluctant to confess because they think they can get away with their crime.

To explore these ideas, an experiment was designed that required participants to commit a mock crime. Mock-suspects then had to decide their likelihood of confessing in a mock police interview, based on witness evidence that was presented to them. We hypothesized that the more detailed the eyewitness evidence against the suspect, the more likely they would be to confess. Conversely, we hypothesized that inaccurate information would lower the likelihood of a confession.

METHOD

Design

A 2 × 2 between-subjects design was used. The first independent variable concerned the amount of detail presented to the suspect. This was either detailed or not-detailed information. The second independent variable concerned the accuracy of the information presented to the suspect. This was either accurate or not-accurate information.

Participants

Participants were 40 undergraduate psychology students who participated for course credits (30 female, 10 male). The mean age was 21.58 (SD = 0.90, range 17–42).
Procedure

Participants were told they would be participating in a study concerning the responses of innocent and guilty suspects to police investigations. They were told they may be required to ‘steal’ an object if they were assigned to the ‘theft’ condition but if they were assigned to the ‘innocent’ condition they would not be required to steal anything. Participants were told they would be interviewed later, and the interviewer would not know if they were in the innocent or guilty condition. Participants were then given an envelope to open, the contents of which, informed them of whether they were in the theft or innocence condition. All participants were assigned to the theft condition. The reason for suggesting was an innocent condition so that participants believed they could deny the mock-crime to the interviewer without the interviewer knowing that they were lying. The instructions in the envelope were as follows:

You have been assigned to the theft condition. What you have to do is to go into the room marked experimental room. Once in the room you are to search for, and steal, a cell-phone. Once you have stolen the cell-phone leave the room and return to the waiting area where the experimenter will meet you. Try hard to act, and feel, as if you are really committing this crime.

Participants were then directed to an interviewing room that included an obvious and prominent one-way mirror. In the room was a desk with drawers. In the drawers were empty folders. There was a briefcase, and a sports bag with a towel in it. There was also a table and chairs and drawn curtains. The cell-phone was hidden behind the curtains. All participants searched through the desk drawers, the brief-case and the sports bag. The order in which they searched the room varied but they always did this before finding the cell-phone.

Participants were interviewed 3 days later. The interviewer was told that half the people that would be interviewed were innocent and half were guilty. Thus, the interviewer did not know that all the mock-suspects were in the ‘theft’ condition. At the start of the structured-interview the interviewer stated the following:

The reason you are here today concerns an allegation of the theft of a cell-phone. I have evidence that suggests you stole this phone. A witness has made the following statement.

At this point the interviewer read a witness statement that commenced as follows:

On the 3rd of August (date), at approximately 11.00 a.m. (time) I was waiting in an interviewing room at the Psychology Clinic. I was there as part of an experiment I had signed up for to receive participation credits for my course in Criminology. The interview room was fitted with a one-way mirror and while I was in the waiting room I saw another woman go into the next room through the one-way mirror. I watched her enter the room, I watched her because she was acting suspiciously.

Correct dates, times and gender were used. Criminology and Psychology students were both required to participate in experiments for credits but normally participated in different experiments, consequently it was entirely plausible to the Psychology participants that a Criminology student was behind the one-way mirror. The remainder of the witness statement was constructed to come from one of four conditions, detailed correct, detailed incorrect, not-detailed correct and not-detailed incorrect. The statements were constructed as follows.
Detailed accurate information statement
For this statement all the information was correct. The witness statements varied in the way that the offender was described to have searched the room to be consistent with what the participant did. The following is an example:

She opened a sports bag that was already in the room and looked inside. She then rummaged around the bag, lifting out a towel and looking inside all the pockets. She then opened a brief-case that had also already been in the room, and looked through the brief-case thoroughly, including all the compartments. Next she opened the drawers of the desk, and opened a folder in the bottom drawer and looked through it. She then searched through the bag and briefcase again, before going over to the curtains and taking a cell-phone from behind them. Then she left the room. I would describe the woman as a white woman aged about 21–23 (age). She was about 5'5'' to 5'7'' tall (height). Her hair was brown (hair colour) of short to medium length (hair length) and styled in a high pony tail (hair style). She was wearing a white singlet top (colour and style of top). She was wearing brown slacks (colour and style of bottom clothing). She was wearing beige, slip-on, closed toe, shoes (colour and style of shoes) Her complexion was fair (complexion). She was wearing a silver-banded watch with an analogue face (accessory).

Detailed inaccurate information statement
For this statement information was identical to the detailed correct information except the witness states that the cell-phone was taken from the desk drawer, and the descriptive information in brackets above was altered to be inaccurate. Thus, for half the participants their height was increased by 3 inches, for the other half it was reduced by 3 inches. Hair length, colour and style were changed, for example long brown hair in a pony tail might be described as short blond hair that was spiked up. A white singlet might be described as a blue T-shirt, brown slacks as blue jeans, beige, slip-on, closed toe, shoes might be described as black sneakers and fair complexion might be changed to slightly tanned complexion. The accessory might be changed for example from a silver banded watch with an analog face to a gold bracelet.

Not-detailed accurate information statement
In this condition all the information was correct but not detailed, for example:

She was a white woman aged about 21–23 (age). She was about 5'5'' to 5'7'' tall (height) and had brown hair (hair colour). She found a cell-phone behind the curtain and took it.

Not-detailed inaccurate information statement
In this condition the statement was identical to the not-detailed correct information except the witness states that the cell-phone was taken from the desk drawer, and the descriptive information in brackets above was altered to be inaccurate as described previously.

Next all participants were given the following instructions by the interviewer. Now what I would like you to do is to decide what your likelihood of confessing to this crime would be on a scale from 1 to 10 with 1 being very unlikely to confess and 10 being very likely to confess. Please respond on the form but do not let me see your response.
Participants did not tell the interviewer their rating to prevent commitment bias for the next task. Once the participant had circled their response on the Likert scale provided, the interviewer read the following instructions:

Now I would like to give you $10 so that you have an extra $10. Before you can have this money I would like you to decide whether you will confess or deny this crime. If you deny the crime then the evidence against you and your denial will be put forward to a group of mock-jurors. If they find you “guilty” you will be fined $10 so you will receive no money. If they find you “not guilty” you will not be fined and will receive the $10 at the end of this semester. If you confess, you will be found guilty, but because you admitted your crime, you will only be fined $5. You will receive the $5 dollars at the end of the semester. All money will be distributed at the end of the semester and you will be notified by email where to collect the money.

The rationale for giving participants $10, which they could then potentially lose, was that people are more risk averse concerning losing something than to gaining something (Larrick, 1993). The financial incentives were designed to approximate the relative consequences of denying and being convicted, denying and not being convicted and confessing and being convicted.

The interviewer asked the participant if he or she understood the instructions. If the participant indicated that he or she did not understand the instructions, the interviewer re-read the instructions slowly, and offered further clarification when required. Participants were then asked ‘Do you confess or deny this offence?’, and their answer was recorded. They were then advised to complete the remainder of the questionnaire.

All items in the questionnaire required the participants to respond on 10-point Likert scales. The first group of questions addressed participants’ perceptions of the experiment, the evidence against them and their experiences when participating in the experiment. The analysed questions were ‘How strong do you think the evidence against you is?’, ‘How accurate do you think the evidence against you is?’, ‘How detailed (regardless of accuracy) do you think the evidence against you is?’, ‘How guilty do you feel?’ and ‘How pressured did you feel to confess?’ The remaining group of questions pertained to the mock police interviewer’s performance, and required the participants to rate their agreement with the following statements ‘The interviewer was fair’, ‘The interviewer was aggressive towards me’, and ‘The police interviewer showed humanity towards me’.

RESULTS

Manipulation checks

As a manipulation check 2 × 2 between-subjects ANOVAs (detailed/not-detailed× accurate/inaccurate) were conducted on mock-suspects’ ratings of the detail and accuracy of the evidence against them. The means and standard deviations are displayed in Table 1. Participants indicated that they felt the evidence to be more detailed in the detailed condition (*M* = 7.15, *SD* = 2.21) than in the not-detailed condition (*M* = 5.75, *SD* = 1.97), *F*(1, 36) = 5.99, *p* < 0.05. Participants also indicated that they felt the evidence was more detailed in the accurate condition (*M* = 7.30, *SD* = 2.00) than in the inaccurate condition (*M* = 5.60, *SD* = 2.06), *F*(1, 36) = 8.83, *p* < 0.01. The interaction was also
significant, $F(1, 36) = 5.99, p < 0.05$. Follow-up $t$-tests ($p < 0.05$) indicated that the interaction was due to participants in the detailed and accurate condition rating the evidence against them as more detailed ($M = 8.70, SD = 1.06$) than those in the detailed inaccurate condition ($M = 5.60, SD = 1.96$), the not-detailed accurate condition ($M = 5.90, SD = 1.73$) and the not-detailed inaccurate condition ($M = 5.60, SD = 2.27$) which did not differ from one another significantly.

With regards participants’ ratings of the accuracy of the evidence, a significant main effect was found between the two accuracy conditions, $F(1, 36) = 55.25, p < 0.001$. Participants indicated that they believed the evidence to be more accurate in the accurate condition ($M = 7.45, SD = 2.05$) than in the inaccurate condition ($M = 3.10, SD = 1.55$). No main effect was found for detail, $F(1, 36) = 0.07, p > 0.05$ and the interaction was also not significant, $F(1, 36) = 0.36, p > 0.05$. Thus, the manipulation of the independent variables was effective.

A series of $2 \times 2$ between-subjects ANOVAs (detailed/not detailed $\times$ accurate/not accurate) were conducted on mock-suspects’ ratings of the interviewer for aggression, humanity and fairness. No interviewer main effects or interactions were significant, as would be expected with the double-blind nature of the design. For brevity we do not report these results in full here.

The influence of detail and accuracy on mock-suspects’ decisions to confess
To determine if the information included in the interview influenced mock-suspects’ decisions to confess a $2 \times 2$ between-subjects ANOVA (detailed/not detailed $\times$ accurate/not accurate) was conducted on mock-suspects’ ratings of their likelihood of confessing. The means and standard deviations are displayed in Table 1. No significant main effect was found for detail $F(1, 36) = 0.40, p > 0.05$. A significant main effect was found for accuracy, $F(1, 36) = 20.90, p < 0.001$. Participants gave a significantly higher likelihood of confessing in the accurate condition ($M = 6.30, SD = 2.56$) than in the inaccurate condition ($M = 3.05, SD = 1.88$). The interaction was not significant, $F(1, 36) = 1.43, p > 0.05$.

Table 1. Mock-suspects ratings’ of likelihood of confessing, strength of evidence, guilt and pressure in relation to detail and accuracy

<table>
<thead>
<tr>
<th>Question</th>
<th>Detailed Accurate</th>
<th>Detailed Inaccurate</th>
<th>Not-detailed Accurate</th>
<th>Not-detailed Inaccurate</th>
</tr>
</thead>
<tbody>
<tr>
<td>How likely would you be to confess?</td>
<td>6.50 (2.95)</td>
<td>2.40 (1.90)</td>
<td>6.10 (2.23)</td>
<td>3.70 (1.70)</td>
</tr>
<tr>
<td>How strong do you think the evidence</td>
<td>7.20 (1.14)</td>
<td>2.20 (1.71)</td>
<td>6.60 (1.71)</td>
<td>3.60 (1.71)</td>
</tr>
<tr>
<td>against you is?</td>
<td>(2.86)</td>
<td>(1.41)</td>
<td>(2.91)</td>
<td>(1.71)</td>
</tr>
<tr>
<td>How accurate do you think the evidence</td>
<td>7.70 (3.00)</td>
<td>3.00 (2.20)</td>
<td>7.20 (3.20)</td>
<td>3.20 (2.20)</td>
</tr>
<tr>
<td>against you is?</td>
<td>(2.06)</td>
<td>(1.49)</td>
<td>(2.10)</td>
<td>(1.69)</td>
</tr>
<tr>
<td>How detailed (regardless of accuracy)</td>
<td>8.70 (1.14)</td>
<td>5.60 (1.73)</td>
<td>7.30 (1.73)</td>
<td>5.60 (1.73)</td>
</tr>
<tr>
<td>do you think the evidence against you is?</td>
<td>(1.06)</td>
<td>(1.96)</td>
<td>(1.73)</td>
<td>(2.27)</td>
</tr>
<tr>
<td>How guilty do you feel?</td>
<td>7.20 (4.50)</td>
<td>4.50 (6.60)</td>
<td>7.20 (6.60)</td>
<td>4.50 (6.60)</td>
</tr>
<tr>
<td>(1.99)</td>
<td>(1.27)</td>
<td>(3.34)</td>
<td>(2.23)</td>
<td>(2.34)</td>
</tr>
<tr>
<td>How pressured did you feel to confess?</td>
<td>5.40 (2.59)</td>
<td>3.20 (1.99)</td>
<td>4.60 (1.96)</td>
<td>4.10 (1.67)</td>
</tr>
<tr>
<td>(2.59)</td>
<td>(1.99)</td>
<td>(1.96)</td>
<td>(1.96)</td>
<td>(1.67)</td>
</tr>
</tbody>
</table>

Note: Scores range from 1 (not at all) to 10 (extremely). Standard deviations are in brackets.
These results were mirrored by participants’ actual decisions to confess. A logit model was run on participants’ decision to confess or deny as the dependant variable and detail and accuracy as independent variables. This is analogous to the previous ANOVAs except with binary data. There was no significant effect of detail, \( z = -1.44, p > 0.05 \). The was a significant effect of accuracy, \( z = -2.64, p < 0.01 \). Fifteen participants confessed in the accurate condition compared with 3 in the inaccurate condition. There was no significant interaction, \( z = 1.45, p > 0.05 \). Participants’ ratings of their likelihood of confessing and their actual decisions to confess were highly correlated, \( r(40) = 0.75, p < 0.001 \).

The relationship between detail and accuracy, and perceived strength of evidence, guilt and pressure to confess

A series of 2 × 2 ANOVAs (detailed/not detailed × accurate/not accurate) were conducted on participants’ ratings of strength of evidence, feelings of guilt and perceptions of pressure to confess, the means and standard deviations are again displayed in Table 1. For participants’ perceptions of the strength of evidence no significant main effect was found for detail \( F(1, 36) = 0.31, p > 0.05 \), but a significant main effect was found for accuracy, \( F(1, 36) = 30.64, p < 0.001 \). Participants perceived the evidence to be stronger in the accurate condition \( (M = 6.90, SD = 2.83) \) compared with the inaccurate condition \( (M = 2.90, SD = 1.59) \). The interaction was not significant, \( F(1, 36) = 1.92, p > 0.05 \).

The same pattern was found for participants’ ratings of guilt and for perceived pressure to confess. No significant main effect on participants’ perceptions of guilt was found for detail, \( F(1, 36) = 0.00, p > 0.05 \), but a significant main effect was found for accuracy, \( F(1, 36) = 4.23, p < 0.05 \). Participants stated that they felt more guilt in the accurate condition \( (M = 6.90, SD = 2.69) \) compared with the inaccurate condition \( (M = 4.80, SD = 1.79) \). The interaction was not significant, \( F(1, 36) = 0.67, p > 0.05 \). Similarly, no significant main effect was found for detail on perceived pressure to confess, \( F(1, 36) = 0.01, p < 0.05 \), but a significant main effect was found for accuracy, \( F(1, 36) = 8.13, p < 0.001 \). Participants stated that they felt more pressure to confess in the accurate condition \( (M = 5.00, SD = 2.27) \) than in the inaccurate condition \( (M = 3.65, SD = 1.84) \). The interaction was not significant, \( F(1, 36) = 0.67, p > 0.05 \).

**DISCUSSION**

The hypothesis that inaccurate information would lower the likelihood of a confession was strongly supported. Participants in the inaccurate conditions believed the evidence against them was far weaker than participants in the accurate conditions. An explanation for why this reduced their likelihood of confessing is that the mock-suspects may have believed that a jury would not convict them if evidence was erroneous, clearly ignoring the fact that a jury will often have no objective way of telling if evidence is accurate or inaccurate. Importantly in this experiment virtually all the inaccurate evidence (e.g. clothing, hair colour and style, whether they went through the briefcase before the sports bag) would not be possible to objectively discredit (see also, Kassin, 2005).

The above findings have clear and important implications for police investigations. An extensive body of literature shows that the way in which an eyewitness is interviewed has a profound impact on the accuracy of the witnesses’ evidence (e.g. Ceci & Friedman, 2000;
Fisher & Geiselman, 1992; Loftus & Palmer, 1974; Milne & Bull, 1999). This study shows that effective interviewing in order to ensure accurate evidence is presented to a suspect may be critical to suspects’ decisions to confess and also appears to increase the pressure they feel to confess. These results suggest that fabricating evidence as suggested by Inbau, Reid, Buckley, and Jayne (2001) is a dangerous practice which is likely to reduce a suspect’s likelihood of confessing if the suspect is able to recognize errors in the ‘evidence’ presented to them.

We hypothesized that the more detailed the eyewitness evidence against the suspect, the more likely they would be to confess. This was not the case in this experiment. Whilst participants believed the evidence against them was more detailed in the detailed condition than the not-detailed condition, this did not increase their perception of the strength of the evidence against them, or their likelihood of confessing. One explanation is that the combination of an identification by an eyewitness and details concerning the mock-crime they had committed produced something of a ceiling effect. However, this does not seem to be reflected in the ratings for likelihood of confessing. Perhaps much more detail or corroborating evidence is also required to increase confession rates still further. One implication of this finding for police interviewers is that suspects may not realize quite how important detailed evidence is for jurors’ decisions to convict or acquit. If police officers have considerable, detailed, evidence they may need to explicitly point out to suspects what impact this is likely to have on a jury (Bell & Loftus, 1988, 1989).

The results concerning participants’ ratings of guilt are noteworthy. Previous research and theory (e.g. Gudjonsson, 2003; Gudjonsson & Petursson, 1991; Reik, 1959) have emphasized a causal relationship between feeling guilty and subsequent confessions, suggesting that offenders confess because they wish to get things ‘off their chest’. However, the current findings indicate that once an individual has decided to confess they may feel they should explain their confession in terms of their own desire to confess because of feelings of guilt, rather than having been forced to confess because of convincing evidence or other reasons. Clearly, saying you are confessing due to feelings of guilt creates a better impression of the suspect than saying you are confessing due to strong evidence or police pressure.

Leading on from this point, an important aspect of the current experiment is that a methodology has been described that has potential utility in assessing the impact of different suspect-interview techniques. Ogloff (1999) and Small (1993) have pointed out that most research in forensic psychology is descriptive rather than theoretical, and have argued that this has impoverished the development of forensic psychology. With regards to suspect interviewing, the ethical and practical difficulties associated with manipulating variables in actual police interviews clearly limit what can be done in the field without potentially jeopardizing cases. The current experimental paradigm offers potential utility for testing techniques that may improve police interviewing of suspects, and together with other experimental models opens a fertile avenue of research (see, Hartwig, Granhag, Stromwall, & Vrij, 2005; Horselenberg, Merckelbach, & Josephs, 2003; Russano, Meissner, Narchet et al., 2005; Vrij, 2000).

Nevertheless, some reservations must be expressed concerning the ecological validity of the present experiment. The current sample consisted of an undergraduate university population, where the majority of participants were female, and all participants knew they would not suffer any legal consequences. Thus, future work with a forensic population would seem to be important and necessary, in order to increase ecological validity further.
CONCLUSIONS

The implications of this study are clear. Police officers should pay careful attention to the way in which they present evidence to suspects. In particular, they should ensure that evidence is accurate and that suspects are aware of how detailed evidence is likely to impact on a jury. Consequently, getting a suspect to confess to a crime they committed is not likely to be simply a result of effective interrogation techniques, but rather to be the culmination of a thorough investigation, especially regarding obtaining accurate information from witnesses prior to interviewing suspects.

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REFERENCES


