Interviewing strategically to elicit admissions from guilty suspects

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Abstract

In this paper we introduce a novel interviewing tactic to elicit admissions from guilty suspects. By influencing the suspects' perception of the amount of evidence the interviewer holds against them, we aimed to shift the suspects' counter-interrogation strategies from less to more forthcoming. The proposed tactic (SUE-Confrontation) is a development of the Strategic Use of Evidence (SUE) framework and aims to affect the suspects' perception by confronting them with statement-evidence inconsistencies. Participants ($N = 90$) were asked to perform several mock criminal tasks before being interviewed using one of three interview techniques: (1) SUE-Confrontation; (2) Early Disclosure of Evidence; or (3) No Disclosure of Evidence. As predicted, the SUE-Confrontation interview generated more statement-evidence inconsistencies from suspects than the Early Disclosure interview. Importantly, suspects in the SUE-Confrontation condition (vs. Early and No disclosure conditions) admitted more self-incriminating information and also perceived the interviewer to have had more information about the critical phase of the crime (the phase where the interviewer lacked evidence). The findings show the adaptability of the SUE-technique and how it may be used as a tool for eliciting admissions.

Keywords: strategic use of evidence, admissions, statement-evidence inconsistency

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Suspect interviews should focus on the search for relevant and critical information, such as suspect admissions. Admissions are crime-related facts which provide a basis for inferences of guilt or innocence (e.g., Perry, 2012; Slough, 1959). An admission refers to critical information unknown to the interviewer that might provide new leads for further investigation or establish links between a suspect and a crime. Some studies use the terms admission and confession interchangeably; however, here we make a distinction between the two. By confession we mean a narrative statement in which the suspect takes responsibility for the commission of the crime. An admission, on the other hand, is information that potentially incriminates the suspect (e.g., admitting being at the crime scene), but does not involve the suspect agreeing to have committed the crime. Incriminating admissions are highly valuable when a case is short of evidence and lacks a confession.

A key challenge in suspect interviews is that guilty suspects typically steer clear of providing incriminating information (Granhag, Clemens, & Strömwall, 2009; Strömwall & Willen, 2011). This raises the question of how to elicit admissions from guilty suspects. Although interrogation manuals provide various techniques to elicit admissions and confessions (e.g., Inbau, Reid, Buckley, & Jayne, 2001), these methods are rarely supported by research. Some have even shown to be ineffective (Holmberg & Christianson, 2002) and/or unethical (Vrij, 2003). Turning to the science of interviewing, researchers have generated a substantial body of literature on risk factors for false confessions (e.g., Kassin et al., 2010) but there is less research on techniques that may result in true admissions or true confessions (Meissner, Hartwig, & Russano, 2010). Regarding the latter, empirical research suggests that humane (e.g., rapport building) approaches are more effective at eliciting confessions than dominant (e.g., accusatory) approaches (Alison, Alison, Noone, Elntib, & Christiansen, 2013; Evans et al., 2013; Mann et al., 2013).

Few studies, however, have addressed specific tactics on how to elicit admissions during interviews. The present paper will aim to fill this gap by examining a novel tactical approach for eliciting admissions from guilty suspects via strategic interviewing. The approach draws on the general principles behind the Strategic Use of Evidence (SUE) technique (Granhag & Hartwig, 2015; Hartwig, Granhag, Strömwall, & Vrij, 2005). Below we will outline these general principles, how they are related and how they pertain to the suggested tactical approach.

Extending the SUE framework

The majority of studies examining the SUE-technique aim to elicit cues to deception and truth (Hartwig, Granhag, & Luke, 2014). The technique rests on the premise that innocent and guilty suspects differ in their counter-interrogation strategies; that is, in their attempts to convince the interviewer of their innocence (Granhag & Hartwig, 2008). Research shows that innocent suspects are verbally forthcoming, whereas guilty suspects tend to withhold critical information (Hartwig, Granhag, & Strömwall, 2007; Strömwall, Hartwig, & Granhag, 2006). The evidence held by the interviewer can be used to exploit this difference. If the interviewer uses the evidence strategically (i.e., posing questions that will exhaust a suspect's possible alternative explanations to the evidence and make the suspect address the evidence before it is revealed to him/her), it is likely that a guilty suspect will provide a statement that is inconsistent with the evidence. Hence, the interviewer elicits *statement-evidence inconsistencies*, a diagnostic cue to deceit (Hartwig et al., 2014).

The SUE-technique is based on a set of general principles that could be effective in eliciting admissions from guilty suspects. Central to the approach is the suspect's perception of the evidence held against him/her and how this perception influences his/her counter-interrogation strategies (Granhag & Hartwig, 2015). The perception of the evidence refers to the suspect's views about the amount of information the interviewer holds about the crime

(Hartwig et al., 2007). As noted above, guilty suspects tend to withhold information during interviews due to their reluctance to reveal incriminating information. Recent research, however, shows that guilty suspects' perception of the evidence may affect their tendency to conceal or reveal information (Luke, Dawson, Hartwig, & Granhag, 2014; Luke, Hartwig, Shamash, & Granhag, 2014; Tekin, Granhag, & Mac Giolla, 2014). Specifically, the more evidence guilty suspects believe the interviewer holds, the more forthcoming they will be, presumably in an attempt to avoid statement-evidence inconsistencies.

For example, if a suspect believes that the interviewer does *not* hold a certain piece of information (e.g., "The interviewer does not seem to know where I was on Sunday evening"); s/he would adopt a withholding strategy in order to avoid self-incrimination (e.g., "I will not incriminate myself by telling them that I was in the park where the crime occurred"). Conversely, if the suspect perceives the interviewer to hold a certain piece of information (e.g., "The interviewer probably knows that I was in the park on Sunday evening"), s/he might consider it fruitless to withhold information the interviewer already knows. Hence, the suspect will be forthcoming with that piece of information (e.g., "I should mention that I was in the park during that evening").

The Present Study

The tactical approach introduced rests on three basic assumptions: (1) a suspect's perception of how much evidence the interviewer holds is malleable, (2) a suspect's perception of the evidence affects his/her counter-interrogation strategies and (3) counter-interrogation strategies affect what a suspect reveals or conceals during the interview. The goal of the current study is to influence the suspect's perception of the evidence through strategic interviewing, in order to make him/her more forthcoming. This new tactical approach is labelled the SUE-Confrontation tactic; as the tactic (a) draws on the SUE

framework and (b) aims to alter the suspect's counter-interrogation strategies by confronting him/her with inconsistencies obtained by strategic interviewing.

For example, suppose that a crime (e.g., assisting in the preparations for a sabotage) is divided into phases, each phase with a different theme. That is, each phase entails a different task which is independent but related to the crime (e.g., meeting an accomplice, stealing a file, gathering information). The interviewer has evidence about two of the themes (e.g., CCTV footage of the suspect meeting the accomplice) but not about the third theme (In the current study, the two phases for which the interviewer had evidence for are referred to as Phase 1 and Phase 2, whereas the phase for which the interviewer lacked evidence is referred to as the critical phase or Phase 3). In the SUE-Confrontation tactic, the interviewer first focuses on the two phases of the crime for which s/he has evidence (i.e., Phase 1 and 2). By interviewing in line with some of the most basic components of the SUE-technique (i.e., asking open-ended questions before disclosing the evidence) the interviewer should obtain statement-evidence inconsistencies—since guilty suspects typically use withholding strategies. In the next instance, the interviewer confronts the suspect with the inconsistencies in order to affect his/her perception of the evidence ("They seem to have more information than I first thought"). In turn, the change of perception is expected to result in a shift in the suspect's counter-interrogation strategy, from a withholding to a more forthcoming strategy ("My withholding strategy is not working; I need to be more forthcoming in order to avoid being inconsistent with the evidence"). Finally, the interviewer turns to the critical phase (for which s/he has no evidence). Our assumption is that the suspect's more forthcoming strategy will result in more admissions about the critical phase.

The present study differs from past research in two important ways. First, we aimed to affect the suspects' perception of the evidence *during* the interview, rather than prior to the interview (e.g., Luke, Dawson et al., 2014; Luke, Hartwig et al., 2014; where suspects were

either warned prior to the interview that there might be evidence against them or were informed about the SUE-technique, that the interviewer would aim to generate inconsistencies before revealing the evidence). That is, the interviewer aimed to elicit statement-evidence inconsistencies and then used these to shift the suspects' verbal strategies from less to more forthcoming. To our knowledge, no previous study has attempted to utilize cues to deceit (e.g., statement-evidence inconsistencies) to elicit admissions during an interview.

Second, we limited the scope of the present study to eliciting admissions from guilty suspects only. The rationale behind this is the consistent findings that innocent suspects are typically forthcoming with critical information and that they are consistent with the evidence (Hartwig et al., 2014) regardless of the interviewer's tactic (e.g., Luke, Hartwig et al., 2014). For example, in a recent study, guilty and innocent suspects (who had performed similar tasks) were interviewed with one of three interview techniques: SUE-Confrontation, Early Disclosure of Evidence, and Minimal Disclosure of Evidence (Tekin et al., 2014). Innocent suspects were significantly more forthcoming than guilty suspects when asked about the critical phase for which the interviewer lacked evidence. In fact as many as 59 out of 60 innocent suspects disclosed all pieces of critical admissions regardless of the interview condition. Hence, the present study focused on the effectiveness of different interview tactics in eliciting admissions from guilty suspects. Unless stated otherwise, hereafter the term suspect refers only to guilty suspects.

It is appropriate to compare the SUE-Confrontation technique to commonly used interview methods which do not use the evidence in a strategic manner. Hence, we selected two relevant control techniques. The first control technique is the Early Disclosure of Evidence technique, often used in (US) police interviews, where the interviewer presents the evidence to the suspect at the outset of the interview (e.g., Leo, 1996). When confronted with

the evidence at the outset of the interview, guilty suspects tend to be consistent with the presented evidence (e.g., Hartwig et al., 2005). We have no reason to believe that these suspects will then be motivated to provide incriminating information over and above what has already been presented by the interviewer. An alternative interview method would be to pose questions about the critical phase (the phase of the crime for which the interviewer lacks evidence) to obtain information about this phase while ignoring the phases for which evidence is already available. In such an interview (hereafter referred to as the No Disclosure of Evidence interview) suspects are expected to provide little incriminating information (Hartwig et al., 2007; Strömwall et al., 2006).

In sum, we predicted that the SUE-Confrontation condition would generate more statement-evidence inconsistencies than the Early Disclosure interview (Hypothesis 1a). Suspects in the SUE- Confrontation condition were expected to be more consistent with the evidence after the confrontation in Phase 1 since they would realize that their withholding strategy does not pay off. Thus, we predicted that suspects in the SUE-Confrontation condition (vs. suspects in the Early Disclosure condition) would be more inconsistent with the evidence in Phase 1; however there would be no such difference between conditions in Phase 2 (Hypothesis 1b). Furthermore, we predicted that suspects in the SUE-Confrontation condition would provide more admissions compared to suspects in the other two interview conditions (Hypothesis 2). Finally, we expected that suspects in the SUE-Confrontation condition (vs. the two control conditions) would perceive the interviewer to have had more information about the critical phase prior to being asked about this phase in the interview (Hypothesis 3). In addition, we explored the changes in suspects' counter-interrogation strategies.

Method

Participants and Design

A total of 90 participants (59 women and 31 men) were recruited through advertisements on several locations in Gothenburg, Sweden. The advertisements asked for volunteers to take part in various studies at the Department of Psychology. Their age varied between 19 and 69 years (M = 21.51 years, SD = 7.65) and 81% were students. Upon arriving at the laboratory, they were randomly assigned to one of the three interview conditions. Thirty participants were allocated to each condition. All participants signed an informed consent form. After the experiment, they were fully debriefed and given a movie ticket worth approximately $17. Participation required about one hour per participant.

We employed a between-subject design. The independent variable was the interview style: SUE-Confrontation, Early Disclosure, and No Disclosure. The dependent variables were objective analyses of suspects' verbal behavior (statement-evidence inconsistencies and admissions) and suspects' subjective ratings of their perceptions of the evidence.

Procedure

The mock crime. Participants were instructed to imagine themselves as a dedicated member of an activist group. They were to undertake a secret mission as part of a larger operation which was to sabotage a company infamous for harmful animal testing. The mission consisted of three phases, each with a different theme. All tasks were performed individually at the Department of Psychology and participants kept the written instructions while performing the tasks to avoid the heavy load of memorizing them. Additionally, they were walked through all the location details and were provided with floor plans along with the instructions.

Phase 1. In the first phase, participants received a key from a female accomplice (one of the experimenters) for entering an office later on. (1) They left the Department for a short while through the back door. (2) They waited outside for the accomplice and (3) received an

electronic key. (4) After a brief dialogue (in which the accomplice asked if the participants knew how to use the key), they went back into the building.

Phase 2. In the second phase, participants copied a file from a laptop. (1) They went to the top floor (the fifth floor) of the Department. (2) They entered an office with the key received in Phase 1. (3) They found a laptop with a file named 'The Codes' on the desktop. This file contained scripts that were to be used in the larger operation. (4) They logged into their private e-mail accounts and (5) sent this file to another accomplice.

Phase 3. In the final phase, participants collected several documents containing important information about the sabotage. (1) They went down to the second floor of the Department. (2) They went to a bulletin board, where they located and memorized a distinctive sign on a green sheet of paper which was posted by the activist group. (3) Then they entered the library where (4) they took an envelope from a cupboard. (5) After leaving the library they walked through a corridor with small lecture rooms. (6) They went into one of those lecture rooms which had the same green sign on its door as on the bulletin board. From this room, they collected a box of documents. (7) They went down two floors to the basement to complete the last part of their mission. (8) In the basement, they put the envelope and the key inside the box, and placed this package under a sofa for an accomplice to pick up later. Once the mission was completed they returned to the lab.

The evidence. The actions described above generated evidence that cast suspicion on the participants but did not conclusively indicate guilt of involvement in a criminal activity. Phase 1 and Phase 2 generated three pieces of evidence each. The evidence for Phase 1 included (1) video camera surveillance footage from the back entrance showing the participant leaving the building from the back door and entering through the same door after a short while, and an eyewitness statement indicating that (2) the participant had talked to a woman outside, and (3) had received an object from that woman. The evidence for Phase 2

included (1) an eyewitness statement indicating that the participant had been seen on the top floor and (2) a report from the computer technician showing that the participant had logged in to his/her e-mail account, which (3) also indicated that the participant had entered a room on that floor. The interviewers had access to the evidence pertaining to Phase 1 and 2. Importantly, the interviewer did not possess any evidence about Phase 3 (i.e., the critical phase). It should be noted that the ground truth was known to the experimenter, providing the possibility to code the data with respect to statement-evidence inconsistencies and the level of admissions. The ground truth was established by the accomplice for Phase 1. The accomplice confirmed that each participant waited outside the Department, talked to her and went back in using the same door after receiving the key. In Phase 2, the email account was managed by the experimenter to ensure that all participants sent the email. It was necessary for participants to enter the office to be able to email the file. Finally, after all tasks were performed, the experimenter went down to the basement to ensure that every document was collected and placed under the sofa. This was to confirm that it was a deliberate choice later in the interview to admit to or to conceal the activities performed in Phase 3.

The interviews. Once participants returned to the lab, they were given new instructions. They were informed that a suspicious package had been found and that several break-ins and thefts at the Department had been reported. Therefore, an investigative team interviewed everybody who had been in the building during that day. Instructions stated that the participants' goal was to convince the interviewer of their innocence and deny involvement in any criminal act. They were also instructed not to mention taking part in a research study. In order to increase their motivation, they were told that if they did not give a credible impression they would remain a suspect and be interviewed again. However, if they did give a credible impression they would not be interviewed a second time, and additionally, their names would be entered in a raffle to win five extra movie tickets. In fact, all suspects

were interviewed only once and all names were entered in the raffle. After reading the pre-interview instructions, participants were taken to an interview room and given 10 minutes to prepare.

The interviews were conducted by two trained research assistants (one female, one male) who were informed about the case (i.e., the pieces of evidence and the lack of information about suspect's activities after s/he left the top floor). They were blind to suspects' veracity and to the hypotheses. Each interviewer conducted approximately half of the interviews in each condition. All interviews started with the interviewer introducing him/herself, and informing the suspects that they were under suspicion of several criminal activities. All interviews were audiotaped and transcribed verbatim.

SUE-Confrontation Interview. In this interview, the protocol was divided into three phases, with each corresponding to the three phases of the mock crime in chronological order. The structure of the interview for Phase 1 and 2 were identical: (1) a specific question about suspects' whereabouts (e.g., "Have you been out at the back of the Department today?"); (2) an invitation for a free narrative (e.g., "Can you tell me what you did there?"); and (3) disclosure of the evidence. As a general rule the interviewer posed follow-up questions to see if the suspects had anything else to add to their responses (e.g., "Is there anything else you can tell me about what you did at the back of the building?"). The disclosure of the evidence was dependent on suspects' denial or admission. If the suspects denied being at a certain place (e.g., "No, I was not at the back of the building"), the interviewer confronted them with the three pieces of evidence pertaining to that phase and emphasized the seriousness of withholding information ("It is obvious that you are withholding information from me. This is serious and we will return to this later"). If the suspects admitted having been at a certain place, the interviewer then asked for a narrative about their activities. When the suspects' statement fit the evidence, the interviewer confirmed this to them (e.g., "You say that you

went out through the back door and we have video footage indicating that you did so. Thus, what you say fits the evidence we have"). The interviewer confronted them with each piece they omitted or contradicted and emphasized the seriousness of withholding information. They were not given the opportunity to change or to explain the inconsistencies. Lastly, the interviewer posed an open-ended question about Phase 3 ("Can you tell me what you did after you left the top floor, but before you were brought to the interview?"). If the suspect volunteered being on the second floor, in the library, in the corridor, or in the basement, the interviewer asked a general question about their activities there (e.g., "You mentioned being in the basement. Can you tell me in detail what you did there?"). Finally, the interview was closed by the interviewer thanking the suspects for their cooperation. Importantly, the procedure for Phase 3 was identical across all three interview conditions. The mean duration of the SUE-Confrontation interview was 6.85 minutes (*SD* = 3.36).

Early Disclosure Interview. The Early Disclosure interview differed from the SUE-Confrontation interview with respect to the timing of the evidence disclosure. Following the introduction, the interviewer disclosed all six pieces of evidence. The interviewer subsequently posed questions to obtain a free narrative about the suspects' activities outside (Phase 1) and on the top floor (Phase 2). As a general rule the interviewer posed follow-up questions to see if the suspects had anything else to add to their responses. The questioning procedure for Phase 3 was identical to the SUE-Confrontation interview. The mean duration of the Early Disclosure interview was 5.64 minutes (*SD* = 1.70).

No Disclosure Interview. For this condition, the interviewer did not reveal any of the six pieces of evidence and only posed questions about Phase 3. This means that the suspects in this condition responded to fewer questions in total compared to the suspects in the other interview conditions. The interviewer informed the suspects that there was information indicating they had been on the top floor. This was intended to limit their responses to their

activities in Phase 3. The remaining questions were identical to the questioning procedure for Phase 3 in the SUE-Confrontation and the Early Disclosure interviews. The mean duration of the No Disclosure interview was 2.98 minutes (*SD* = 2.04).

Post-interview questionnaire. Following the interview, participants were informed that the role-playing part of the experiment was over, and they were to fill out a post-interview questionnaire in a truthful manner. First, participants reported their age, sex and occupation. Following this they reported (1) how motivated they were to perform their tasks and (2) how motivated they were to convince the interviewer of their innocence (on seven-point scales; 1 = *not at all motivated*, 7 = *very motivated*). Finally, they assessed how much information they believed the interviewer held concerning their activities in Phase 3. In doing so, they were first reminded of the third phase of their mission and the question they received from the interviewer regarding this phase. They were instructed to think back to the interview and rate the amount of information they thought the interviewer had regarding their activities in this phase prior to being asked about it (1 = *the interviewer knew nothing*, and 7 = *the interviewer knew everything*).

Codings. In order to measure *statement-evidence inconsistency*, we analyzed the suspects' statements with regard to the number of inconsistencies in Phases 1 and 2. As mentioned, the interviewer held six pieces of evidence for Phase 1 and 2, three pieces for each phase. Thus, the number of statement-evidence inconsistencies could vary between 0 and 3 for each phase, where 3 indicated that the suspect was inconsistent with all pieces of evidence pertaining to that particular phase. The total number of statement-evidence inconsistencies could vary between 0 and 6, where 6 indicated that the suspect was inconsistent with all pieces of evidence. Both contradictions (statements that contradicted the evidence) and omissions (statements that omitted the evidence) were counted as inconsistencies.

In order to measure *admissions*, we analyzed the suspects' statements for the critical phase only. The critical admissions pertained to: (1) the second floor; (2) the bulletin board; (3) the library; (4) the cupboard in the library; (5) the second floor corridor; (6) the small lecture room on the second floor corridor; (7) the basement; and (8) the sofa in the basement. Each admission was valued as 1, hence, the total admission score for a suspect ranged from 0-8. However, some admissions logically implied other admissions. For example, the Department has only one library and one common sofa. Therefore, admitting to have been in the library implied having been on the second floor. Similarly, mentioning the sofa implied having been in the basement. These details (i.e., the library and the sofa) were counted as two admissions even if the location was not made explicit by the suspect. If the location of the suspect's activity was ambiguous, the interviewer asked him/her to clarify (e.g., "You mentioned a bulletin board. Where was this bulletin board?").

Inter-rater reliability. A random 30% of the transcripts were independently rated by two coders with respect to admissions and the number of statement-evidence inconsistencies. Intra-class correlations (ICC) were calculated, showing an excellent agreement of .99, 95% CI [0.995, 0.999] for admissions scores, and .98, 95% CI [0.97, 0.99] for the number of statement-evidence inconsistencies. The disagreements were settled in a discussion between the coders. One of the coders coded the remaining transcripts.

Results

Overview

In the Results section, we first present some preliminary analyses, ensuring that the samples were comparable. For all hypotheses-testing analyses that follow next, we use Pearson's correlation coefficient, *r,* as effect size measure. The guidelines for what constitutes a large or small effect are as follows: .10 = small, .30 = medium, and .50 = large (Cohen, 1992). At the end of the section, we show some exploratory analyses.

Preliminary analyses

The suspects in the three conditions did not differ with respect to their motivation to perform the tasks, $F(2, 87) = 3.02$, $p = .054$, $r = .25$, 95% CI [.05, .44] [1] or their motivation to convince the interviewer of their innocence, $F(2, 87) = 0.37$, $p = .69$, $r = .09$, 95% CI [-.12, .29]. The mean scores were well above the midpoint of the scales ($M = 5.98$, $SD = 1.06$ and $M = 6.03$, $SD = 1.19$, respectively). We further tested for interviewer effects, but found no statistical indication of any interviewer eliciting different outcomes than other interviewers. This was tested with Interviewer × Condition interactions for each dependent variable, all ps > .28.

Hypothesis-testing analyses

Statement-evidence inconsistency. A mixed-design ANOVA, with statement-evidence inconsistency score at Phase 1 and Phase 2 as the within-subjects factor and interview condition (SUE-Confrontation vs. Early Disclosure interviews) as the between-subject factor was conducted. In support of Hypothesis 1a, there was a significant main effect of interview condition, $F(1, 58) = 49.74$, $p < .001$, $r = .68$, 95% CI [.52, .79], and suspects in the SUE-Confrontation condition showed higher inconsistency scores than suspects in the Early Disclosure condition. See Table 1 for descriptive statistics. The main effect of inconsistency scores (across Phase 1 and 2) was not significant, $F(1, 58) = 0.10$, $p = .75$, $r = .04$, 95% CI [-.22, .29]. Importantly, the interaction effect was significant, $F(1, 58) = 6.57$, $p = .013$, $r = .32$, 95% CI [.07, .53]. Simple effects tests at each level of Phase showed that suspects in the SUE-Confrontation condition produced more inconsistencies than the Early Disclosure condition at Phase 1, $F(1, 58) = 61.55$, $p < .001$, $r = .72$, 95% CI [.56, .82], and that this difference decreased for Phase 2, but was still significant, $F(1, 58) = 23.22$, $p < .001$, $r = .53$, 95% CI [.32, .69] (see Figure 1). Hence, Hypothesis 1b was partially supported.

Admissions. We predicted that the suspects in the SUE-Confrontation condition (vs. the control conditions combined) would provide more admissions about the critical phase. A one-way ANOVA revealed a significant effect of interview condition on the level of admissions, $F(2, 87) = 4.21$, $p = .018$, $r = .29$, 95% CI [.09, .47]. Planned contrasts showed that the SUE-Confrontation condition resulted in more admissions compared to the Early Disclosure and the No Disclosure conditions combined, $t(87) = 2.69$, $p = .008$, $r = .28$, 95% CI [.08, .46]. Thus, Hypothesis 2 was supported. There were no difference between the two control conditions, $t(58) = 1.79$, $p = .079$, $r = .23$, 95% CI [-.03, .46]. See Table 1 for descriptive statistics.

Suspects' perception of the evidence. In the post-interview questionnaire, the participants were asked to think back to the interview and rate how much information they believed the interviewer to have had about the critical phase right before the interviewer posed questions about this particular phase. A one-way ANOVA showed that the suspects' perception of the evidence differed across interview conditions, $F(2, 87) = 3.66$, $p = .03$, $r = .28$, 95% CI [.08, .46]. We expected SUE-confrontation to lead to higher ratings, and found support for the hypothesis since a planned contrasts revealed that the suspects in the SUE-Confrontation condition perceived the interviewer to have held more information about the critical phase than the suspects interviewed with the Early Disclosure and the Control interviews, $t(87) = 2.43$, $p = .017$, $r = .25$, 95% CI [.04, .43]. No difference was found between the control conditions, $t(58) = 1.47$, $p = .146$, $r = .19$, 95% CI [-.07, .42]. See Table 1 for descriptive statistics.

Exploratory analyses

In order to trace the shift in the counter-interrogation strategies for the SUE-Confrontation and the Early Disclosure conditions[2], we examined the suspects' strategies for each phase of the interview based on the number of inconsistencies (for Phase 1 and 2) and

the level of admissions (for Phase 3). Suspects with at least one statement-evidence inconsistency were regarded as withholding in Phase 1. They were also considered as withholding if the number of inconsistencies in Phase 2 were greater than or equal to those in Phase 1. Finally, in Phase 3, suspects were categorized as withholding if they received an admission score less than or equal to 4 (i.e., if they scored below the mid-point of the admission score scale). In the SUE-Confrontation condition, as many as 90% (n = 27) of the suspects used a withholding strategy at the onset of the interview compared to only 16% (n = 5) of the suspects in the Early Disclosure condition. A number of suspects in the Sue-Confrontation condition (n = 9, 30%) then switched to a more forthcoming strategy either after being confronted with inconsistencies in Phase 1 (n = 5) or in Phase 2 (n = 4) of the interview. Of note is that, 41% (n = 10) used a withholding strategy from the beginning to the end of the interview. The pattern was in the reverse direction for the Early Disclosure condition. The suspects (n = 22, 88%) switched from a forthcoming strategy to a withholding strategy, either after Phase 1 (n = 6) or Phase 2 (n = 16).

Finally, in Phase 3, on a group level the suspects in the SUE-Confrontation condition demonstrated a bimodal trend with respect to the admissions for the critical phase. That is, almost half of the suspects in this condition were forthcoming (n= 12), whereas the rest were withholding. However, only a minority of the suspects in the Early Condition (n = 4) were forthcoming in Phase 3. Figure 2 illustrates the changes in the suspects' strategies throughout the phases in both conditions.

Discussion

In the present study, we tested a novel tactical approach to elicit admissions from guilty suspects. As expected, the SUE-Confrontation tactic generated more statement-evidence inconsistencies than the Early Disclosure interview. As predicted, compared to suspects in the Early Disclosure and the No Disclosure conditions, suspects in the SUE-

Confrontation condition (1) were more forthcoming in the critical phase of the interview and (2) perceived the interviewer to have had more information about the critical phase (prior to being asked about this phase).

At the core of the SUE-Confrontation tactic is the relation between the suspects' perception of the evidence and their counter-interrogation strategies. Our aim was to influence the suspects' perception of the evidence so that they would believe that the interviewer held more information on the critical phase than they in fact did. To achieve this, the interviewer used the available evidence in a strategic manner to generate statement-evidence inconsistencies for Phase 1 and 2, before confronting the suspects with these inconsistencies. In line with previous research, we found that the SUE-Confrontation tactic resulted in more inconsistencies than the other interview conditions (Hartwig et al., 2005). Furthermore, the suspects in the SUE-Confrontation condition perceived the interviewer to have had significantly more information about the critical phase prior to being asked about this phase compared to the No Disclosure condition. In sum, by using the SUE-Confrontation tactic we achieved three goals: the interviewer (1) elicited cues to deceit (statement-evidence inconsistencies); (2) used these cues to affect the suspects' perception of the evidence; and (3) elicited admissions in the critical phase.

These findings can be interpreted through the lens of a social cognitive framework, namely the theory of self-regulation (e.g., Carver & Sheier, 2012). This framework provides an understanding on how individuals regulate their behavior to reach a goal or to avoid an undesired outcome. The process consists of forming a hypothesis based on external input (i.e., information about the situation) and deciding on an appropriate strategy. The strategy is then maintained (no behavioral change) or revised (behavioral change), depending on its suitability for goal attainment (MacKenzie, Mezo, & Francis, 2012). In the context of investigative interviewing, guilty suspects regulate their behavior towards the goal of

convincing the interviewer of their innocence (Granhag & Hartwig, 2008; Granhag, Hartwig, Mac Giolla, & Clemens, 2015). However, if the strategy used does not promote the desired outcome, they will be motivated to revise the process and choose a new strategy in order to attain their goal. The SUE-Confrontation interview aimed to activate such a revision process by providing feedback on how well their strategy was working towards the goal. Put differently, the confrontation informed the suspects that the hypothesis formed initially was not correct, and that their withholding strategy was not sufficient to reach their goal. In line with this model and with the empirical findings presented by Luke, Dawson et al. (2014) and Luke, Hartwig et al. (2014), the suspects in the SUE-Confrontation condition were more likely to adjust their counter-interrogation strategies, from a less to a more forthcoming strategy. We argue, from the perspective of self-regulation theory, that the suspects realized the limitations of their initial strategy, and perceived contradicting the possible evidence as a threat to their credibility. Therefore, in an attempt to avert this threat, they switched to a different and more goal-congruent strategy, by avoiding further inconsistencies by volunteering more information (admissions).

It is important to note that the SUE-confrontation interview generated more inconsistencies in Phase 1 than the Early Disclosure condition; however the difference between conditions with respect to the statement-evidence inconsistencies remained significant in Phase 2. A reasonable explanation for this is that some suspects may have realized that the interviewer had more information than expected already after the confrontation in Phase 1, and thus adapted a more goal-congruent strategy in Phase 2. Other suspects, however, may not have assessed the confrontations as a threat to their credibility and proceeded with their withholding strategy in Phase 2.

A considerable amount of suspects in the SUE-Confrontation and the Early Disclosure conditions changed their initial strategies. As expected, virtually all of the suspects in the

SUE-Confrontation condition began the interview using withholding strategies (90%). Subsequently, 30% of the withholding suspects switched to a more forthcoming strategy (either in the second or third phase of the interview). In the Early Disclosure condition, however, the suspects were forthcoming at the outset of the interview (84%) and then a majority of them switched to a more withholding strategy (88%). This is consistent with previous studies demonstrating that suspects tend to provide a story which is consistent with the evidence when they are aware of the interviewer's knowledge, and that they avoid mentioning incriminating information if it is not presented to them (e.g., Hartwig et al., 2005).

Interestingly, a rather large group of suspects in the SUE-Confrontation condition (41%) held on to their withholding strategies throughout the interview. As a result, the suspects in the SUE-Confrontation condition displayed a bimodal pattern in their choice of counter-interrogation strategies for the critical phase. This is in line with the findings of Luke, Dawson et al. (2014), where approximately half of the suspects adopted forthcoming strategies and half adopted withholding strategies. Although it is not clear why some suspects were withholding from the beginning to the end, we offer two possible explanations. First, the suspects may have thought that concealing critical information was a more effective way to appear as innocent compared to increasing statement-evidence consistency by switching to a more forthcoming strategy. Research shows that experienced suspects (i.e., suspects who have been previously interviewed by the police) do not give away information willingly because they believe it is the interrogators' task to prove their guilt (Granhag et al., 2009). Second, the suspects may have believed that the interviewer was already convinced of their guilt based on the early inconsistencies. Given that they could not account for the inconsistencies, it may be argued that they thought that an attempt to regain their credibility in the critical phase was futile. We encourage future research to address this issue by giving

the suspects the opportunity to explain inconsistencies as they are confronted with them. Another avenue for future research is to address questions that will deepen our understanding of the suspects' decision making throughout an interview. Here it should be noted that the current study makes a contribution in this respect as the findings support the causal model underpinning the SUE technique outlined by Granhag and Hartwig (2015); a model which describes suspects' psychological mechanisms at play during an interview. That is, that suspects' perception of the evidence (which is open to influence) moderates their counter-interrogation strategies and influences their decisions to conceal or reveal information during an interview (Granhag & Hartwig, 2015). We believe that future research should examine the shifts in suspects' counter-interrogation strategies thoroughly so as to develop and improve tactics aiming to elicit admissions from withholding suspects.

Observations of real life police interviews suggest that suspects rarely change their initial decision to reveal or conceal information during an interview (Alison et al., 2013; Deslauriers-Varin, Beauregard, & Wong, 2011; Soukara, Bull, Vrij, Turner, & Cherryman, 2009). This may be due to the use of techniques in which the interviewers do not play an active role in changing suspects' decisions during the interview. In this study we demonstrated that interviewers can alter suspects' strategies through a strategic evidence disclosure tactic. However, more research is needed to understand why some suspects change their initial strategies while others do not.

It is important to note that the means for the admission scores in the Early Disclosure condition and the SUE-Confrontation condition were rather similar. The bimodal pattern in the SUE-Confrontation condition accounts for this finding. Speculatively, it may also be caused by the source of the evidence. Suspects may be more sensitive to technical evidence, such as security camera footage. First, this type of evidence is more conclusive. Second, if interviewers have access to one piece of technical evidence, suspects may believe that the

interviewers have access to more (e.g., there may be more surveillance cameras in different locations which could demonstrate the suspects' whereabouts). Therefore, the suspects in the Early Disclosure condition may have become wary to the possibility of more surveillance footage and attempted to be consistent with their whereabouts in the building.

Practical implications, limitations and an ethical note

We believe that our findings have important practical implications. First, we mirrored a situation that is frequent in real investigations: there is some background information about a suspect's whereabouts, but less (or no) information about the critical phase of the crime. Second, we provided empirical support for the prediction that the SUE-Confrontation tactic can be used to elicit admissions. Third, we provided evidence showing that with the SUE framework, it is possible to accomplish multiple goals in an interview. That is, it led to cues to deceit and to admissions, both of which may be outcomes of great value to a prosecutor when building a case regarding a suspect's possible involvement in a crime.

There are some limitations of the study that merit attention. First, the majority of our participants were students, who may not be representative of the typical suspect. Similarly, it is impossible to recreate the high stakes of a real-life suspect interview in the laboratory. However, since suspects in real-life situations will presumably be more motivated to employ counter-interrogation strategies such as avoiding statement-evidence inconsistencies, it is possible that the SUE-Confrontation tactic may be even more effective in real life settings than in lab settings. That is, the laboratory setting may in this case underestimate the effects. Of course, the effect of motivation on suspects' counter-interrogation strategies is an empirical question, and we encourage future research to examine it. Second, the only feasible way to tap the suspects' perceptions of the interviewer's knowledge about the critical phase was to ask about this *after* the full interview (in the post-interview questionnaire). That is, suspects were faced with the task of trying to remember how much information they

estimated the interviewer to have held about the critical phase before they were asked about it. Such retrospective self-reports may be unreliable for several reasons (e.g., suspects' responses may have been influenced by the questions they were asked during the critical phase). On the other hand, such limitations should apply to all conditions and should therefore not account for the differences found between the SUE-Confrontation and the two other conditions. Third, suspects in the SUE-Confrontation condition were posed more questions than in the other conditions. To examine the effects of different interviewing techniques while keeping the number of questions identical is difficult (and often not meaningful). Additionally, as an information gathering interview, the SUE- Confrontation tactic inherently asks more questions than many other interviews, in order to elicit statement-evidence inconsistencies. Importantly, suspects in the SUE-confrontation condition were only asked more questions for phases which the interviewer already possessed information. The procedure for investigating the critical phase (Phase 3) was identical across all conditions.

Finally, a brief ethical note is warranted. Not every approach that aims to influence the suspects' perception of the evidence is ethically defensible. For example, some interrogation manuals suggest the use of deceptive techniques in order to make the suspect believe that there is a substantial amount of evidence against them (e.g., by placing a thick case-file on the table or by explicitly lying about the amount of evidence, Inbau et al., 2001)**.** We want to stress that we distance ourselves entirely from such approaches. The approach we suggest does not entail deception. Instead, it is based on an understanding of how suspects form hypotheses about the evidence against them, and using this understanding strategically in order to influence their counter-interrogation strategies.

Conclusions

The SUE framework provides empirically supported tactics with respect to (a) how to ask questions in relation to the evidence (Hartwig et al., 2011), (b) when to disclose the

evidence (Hartwig et al., 2005), and (c) in what manner to disclose the evidence (Granhag, Strömwall, Willén, & Hartwig, 2013). In this study we further advanced the SUE framework. We outlined the reasoning behind the SUE-Confrontation tactic and provided results showing that this tactic increases the level of admissions from guilty suspects. In essence, if investigators strategically use what they already have (evidence about some phases of a crime), they can increase their chances of obtaining what they need (admissions about a phase where they lack information).

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Notes

[1] Since the difference bordered on significance and the 95% CI of the corresponding *r* did not include zero, we performed post hoc comparisons using the Tukey test. There were no significant differences between the conditions (SUE-Confrontation, $M = 6.13$, $SD = 1.07$; Early Disclosure, $M = 6.20$, $SD = 0.76$; No Disclosure, $M = 5.60$, $SD = 1.22$). Furthermore, we re-ran all tests with motivation to perform the tasks as a covariate. The results did not differ from the ANOVAs reported.

[2] It is important to note that the No Disclosure condition did not produce statement-evidence inconsistency scores in Phase 1 and 2 since the interviewer posed questions only about Phase 3.

Table 1. Descriptive statistics for dependent variables broken down by condition

Condition	Phase 1 Incon. Score[a] M (SD)	Phase 2 Incon. Score[a] M (SD)	Total Incon. Score[b] M (SD)	Admission Score[c] M (SD)	Perception of the Evidence[d] M (SD)
SUE-Confrontation	1.97 (.89)	1.67 (.88)	3.63 (1.61)	3.63 (2.33)	4.50 (1.83)
Early Disclosure	.30 (.75)	.53 (.94)	.77 (.41)	2.63 (1.99)	3.87 (1.48)
No Disclosure	–	–	–	2.03 (2.14)	3.37 (1.54)

Note. Incon. = Inconsistency
[a] The scores range from 0 (*totally consistent*) to 3 (*totally inconsistent*)
[b] The scores range from 0 (*totally consistent*) to 6 (*totally inconsistent*)
[c] The scores range from 0 *(no admission disclosed)* to 8 (*all admissions disclosed*)
[d] The scale ranges from 1 (*interviewer knew nothing)* to 7 *(interviewer knew everything)*

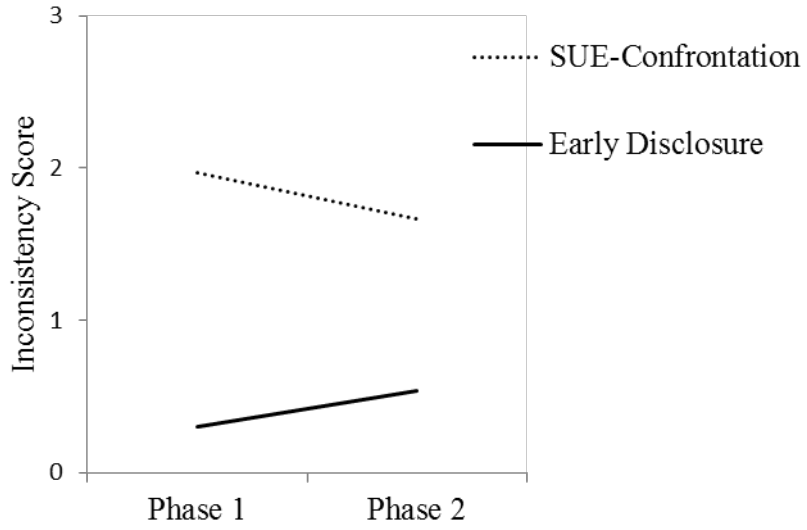

Figure 1.

Mean inconsistency scores for Phase 1 and Phase 2 for the SUE-Confrontation and Early Disclosure interview conditions.

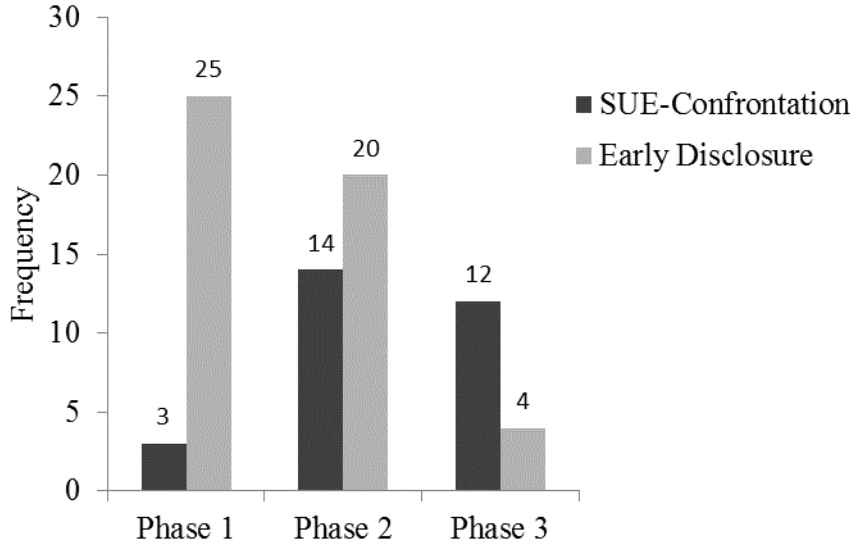

Figure 2.

The forthcomingness pattern of suspects throughout the phases in the SUE-Confrontation and Early Disclosure conditions.