

ELICITING ADMISSIONS FROM SUSPECTS IN  
CRIMINAL INVESTIGATIONS

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Doctoral Dissertation in Psychology  
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September 2, 2016

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University of Gothenburg, 2016

Printed by Ineko AB, Gothenburg, Sweden, 2016  
Cover design by Adrian Kecki

ISSN: 1101-718X Avhandling/Göteborgs universitet, Psykologiska inst.  
ISRN: GU/PSYK/AVH--343--SE  
ISBN 978-91-628-9874-8 (PDF)  
ISBN 978-91-628-9875-5 (Print)  
E-Published version available at: <http://hdl.handle.net/2077/44452>

*Dedicated to Nejat Gürdere*



## ABSTRACT

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Tekin, S. (2016). *Eliciting admissions from suspects in criminal investigations*. Department of Psychology, University of Gothenburg.

The psycho-legal literature is scarce with respect to specific interviewing tactics aimed at eliciting new and critical information (admissions) from suspects in criminal cases. The first major aim of this thesis was to fill this void by introducing and testing a novel evidence disclosure tactic, called the SUE-Confrontation, which draws on the general principles underlying the Strategic Use of Evidence (SUE) framework. The comparative efficacy of the SUE-Confrontation interview was examined in a series of laboratory-based studies. In addition, a number of dependent measures was used to test the relationships between the principles behind the SUE framework. The participants either committed a mock crime (guilty) or performed equivalent noncriminal activities (innocent) divided into three phases, after which they were interviewed as suspects. The interviewer possessed evidence pertaining to two (less critical) phases of the crime, but lacked information about the third and more critical phase. For the SUE-Confrontation interview, the interviewer initially aimed to obtain verbal cues to deceit (statement-evidence inconsistencies) by using the evidence strategically. Thereafter, the interviewer used these cues (confronted the suspect with his or her inconsistencies) to elicit admissions about the critical phase for which the interviewer lacked information. In **Study I** ( $N = 120$ ), the SUE-Confrontation interview was compared to two control interviews: Early Disclosure of Evidence and No Disclosure of Evidence. As predicted, the innocent suspects (compared with the guilty suspects) were more forthcoming regarding their activities related to the critical phase. No difference was found between the interview conditions with respect to the guilty suspects' forthcomingness regarding the critical phase. Nonetheless, the results were promising in terms of eliciting admissions through strategic interviewing. For **Study II** ( $N = 90$ ), the interview protocols were revised. As predicted, the guilty suspects in the SUE-Confrontation condition (compared with the Early Disclosure and No Disclosure conditions) perceived the interviewer to have had more information about the critical phase and disclosed more admissions about this particular phase. In **Study III** ( $N = 75$ ), the aim was to improve the ecological validity of the tactic by providing the suspects with the opportunity to explain the discrepancies in their statements (labelled the SUE-Confrontation/Explain condition). The guilty suspects in the SUE-Confrontation (following the same protocol as used in Study II) and the SUE-Confrontation/Explain conditions combined (versus the Early Disclosure condition) overestimated the amount of evidence that the interviewer possessed about the critical phase. The SUE-Confrontation/Explain condition did not differ from either the SUE-Confrontation condition or the Early Disclosure condition with respect to the number of admissions made by the guilty suspects. Importantly, the SUE-Confrontation interview resulted in more admissions than the Early Disclosure interview. The second major aim of this thesis was to explore police officers' planned use of the available evidence to elicit admissions. **Study IV** was designed as a survey study in which police officers ( $N = 69$ ) planned an interview with a suspect in a fictitious murder case. The investigators planned to disclose the evidence more often in a strategic manner (i.e. obtain the suspect's statement and/or exhaust alternative scenarios before revealing the evidence) than in a non-strategic manner (i.e. reveal the evidence before requiring an explanation). It was rare that the investigators planned to use the evidence pertaining to the less critical phases of the crime so as to elicit admissions about the critical phase (about which they lacked information). Taken together, this thesis demonstrates the development of, and support for, an effective evidence disclosure tactic for eliciting admissions from suspects. Furthermore, the findings lend support to the predicted relationships between the principles underlying the SUE framework. These principles can be tailored to meet the needs of an interviewer, and may be utilised in different criminal cases. Lastly, it is recommended that the SUE-Confrontation tactic be included as part of police officers' training on how to effectively conduct interviews with suspects.

*Keywords:* suspects, admissions, strategic use of evidence, statement-evidence inconsistency, police officers

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ISBN 978-91-628-9874-8

ISSN 1101-718X

ISRN GU/PSYK/AVH--343--SE



## SWEDISH SUMMARY

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Det huvudsakliga syftet med att höra en misstänkt är att samla in relevant och viktig information, som till exempel medgivanden från den misstänkte. I denna avhandling definieras medgivanden som kritisk information som tidigare varit okänd för förhørsledaren och som kan ge nya ledtrådar för utredningen eller fastställa om den misstänkte kan kopplas till brottet. Till exempel kan en misstänkt medge att ha varit vid brottsplatsen vid tidpunkten för ett mord, men samtidigt förneka själva mordet. Ett uttalande som innehåller medgivanden kan bidra till att ge det underlag som behövs för åtal, även om ett erkännande saknas. Med tanke på hur viktigt det är med ny och kritisk information i en brottsutredning, är det förvånande att den rättspsykologiska litteraturen är så knapphändig vad gäller specifika förhörstaktiker med syfte att få fram medgivanden från misstänkta. Denna avhandling avser att råda bot på denna brist på forskning. Avhandlingens huvudfokus är hur bevis bör hanteras för att få fram medgivande. Detta motiverades av det faktum att i de flesta brottmål har utredare tillgång till bevis, och att de presenterar dessa bevis för misstänkta under förhören. Det första övergripande syftet var att presentera och empiriskt testa en specifik förhörstaktik, den så kallade SUE-Konfrontationstekniken. Denna har sitt ursprung i Strategic Use of Evidence (SUE) tekniken som är en teknik för strategisk bevishantering. SUE-teknikens teoretiska plattform utgörs av ett antal generella psykologiska principer; den misstänktes uppfattning om bevisen, den misstänktes motstrategier under förhör och den misstänktes verbala respons. Med den misstänktes uppfattning om bevisen menas dennes föreställning om hur mycket information förhørsledaren har om brottet. Forskning visar att skyldiga misstänkta typiskt sett bildar en hypotes om vilken information förhørsledaren innehar om honom/henne och om brottet. Med den misstänktes motstrategier menas den misstänktes försök att övertyga förhørsledaren om sin oskuld. Förhållandet mellan dessa principer är kärnan i SUE-Konfrontationstaktiken. Det vill säga, en misstänkts uppfattning om bevisen påverkar hans eller hennes motstrategier under förhöret, och dessa motstrategier påverkar i sin tur vad den misstänkte avslöjar respektive döljer under förhöret. Tidigare forskning visar att när skyldiga misstänkta tror att förhørsledaren saknar viss information, så tenderar de att hålla inne med information. Ju mer information skyldiga misstänkta tror att förhørsledaren har, desto mer tillmötesgående är de, antagligen för att försöka undvika att motsäga förhørsledarens kunskap (motsägelser mellan utsaga och bevis). I denna avhandling undersöktes hur användandet av SUE-Konfrontationstaktiken i förhör påverkade misstänkta medgivanden i en serie experimentella studier. Dessutom testades sambandet mellan de principer som utgör grunden till SUE-teknikens teoretiska plattform. Deltagarna fick antingen begå ett fiktivt brott (skyldiga) eller utföra liknande icke-brottsliga aktiviteter (oskyldiga, endast i Studie I). De förhördes därefter som misstänkta. Deras uppgift var att övertyga förhørsledaren om sin oskuld. Deltagarnas handlingar skapade flera bevis som rörde två mindre kritiska faser av brottet (till exempel vad de gjorde före och efter brottet). Bevisen väckte misstanke om den misstänktes inblandning i brottet, men de var inte avgörande. Förhørsledaren kände till dessa bevis, men saknade information om vad den misstänkte gjort i den tredje och mer kritiska fasen (till exempel under den tid brottet ägde rum). Sammantaget speglade detta scenario aspekter som är relativt vanligt förekommande i verkliga utredningar, det vill säga att förhørsledare

innehar bevis relaterat till mindre kritiska faser av ett brott, men saknar information om den mest kritiska fasen. Målet med SUE-Konfrontationsförhöret var att påverka skyldiga misstänkta uppfattning om bevisningen genom förhöra strategiskt och att på så sätt göra dem mer tillmötesgående med information om vad de gjort i den kritiska fasen. Förhørsledaren fokuserade först på de två faser av brottet för vilket han/hon hade bevis. Genom att använda bevisen strategiskt (dvs låta den misstänkte uttala sig om fasen innan de bevis förhørsledaren hade om fasen avslöjades), försökte förhørsledaren få fram motsägelser mellan det den misstänkte sa och det förhørsledaren visste. Därefter konfronterade förhørsledaren den misstänkte med dessa motsägelser för att påverka hans eller hennes uppfattning av bevisningen. Det vill säga att förhørsledaren strävade efter att den misstänkte skulle tro att förhørsledaren hade mer information än vad den misstänkte först trodde. Denna förändrade uppfattning om bevisningen förväntades leda till en ändring i den misstänktes motstrategi; från mindre till mer tillmötesgående. Avslutningsvis ställde förhørsledaren öppna frågor om den kritiska fasen (om vilken han/hon i själva verket saknade information). Den misstänkte förväntades vara mer tillmötesgående angående denna fas för att försöka undvika att motsäga vad han/hon trodde att förhørsledaren visste. Sammantaget förväntades att förhørsledarens strategiska bevishantering skulle påverka den misstänktes uppfattning om hur mycket information förhørsledaren hade som talade emot honom/henne. Denna förändrade uppfattning om bevisen angående den kritiska fasen (om vilken information saknades) skulle i sin tur påverka hur tillmötesgående den misstänkte var angående denna fas.

I **Studie I** jämfördes SUE-Konfrontationsförhör med två kontrollförhör: Tidigt avslöjande av bevis och Inget avslöjande av bevis. I förhören med tidigt avslöjande av bevis delgav förhørsledaren bevismaterialet utan att avkräva en förklaring om det. I förhören utan avslöjande av bevis delgav förhørsledaren inget bevismaterial. I båda förhören ställdes en öppen fråga om den kritiska fasen i slutet av intervjun. Som förväntat var de oskyldiga misstänkta mer tillmötesgående vad gällde deras handlingar i den kritiska fasen än vad de skyldiga misstänkta var. Det var ingen skillnad mellan förhørsbetingelserna med avseende på hur tillmötesgående de skyldiga misstänkta var om den kritiska fasen. Ändå var resultaten lovande vad gäller att få fram medgivanden genom att förhöra strategiskt. I **Studie II** reviderades förhørsprotokollen. Som förväntat uppfattade de skyldiga misstänkta i SUE-Konfrontationsbetingelsen (jämfört med tidigt och inget avslöjande) att förhørsledaren hade haft mer information om den kritiska fasen samt gjorde fler medgivande om denna fas. **Studie III** syftade till att öka taktikens ekologiska validitet. Därför fick de misstänkta chans att förklara motsägelserna i sina uttalanden (gruppen SUE-Konfrontation / förklara). De skyldiga misstänkta i SUE-Konfrontation och SUE-Konfrontation / förklara tillsammans överskattade mängden av bevis som förhørsledaren hade om den kritiska fasen, jämfört med gruppen Tidigt avslöjande. Gruppen SUE-Konfrontation / förklara skilde sig inte från gruppen SUE-Konfrontation eller från gruppen Tidigt avslöjande med avseende på antalet medgivanden från skyldiga misstänkta. Ett viktigt fynd är att SUE-Konfrontationsförhöret resulterade i fler medgivanden än förhör med tidigt avslöjande. Det andra övergripande syftet med denna avhandling var att undersöka hur poliser planerar att använda tillgängliga bevis för att få fram medgivanden. **Studie IV** var en enkätstudie där poliser (i Nederländerna,



Norge och Storbritannien) ombads planera ett förhör med en misstänkt i ett fiktivt mordfall. Två variabler undersöktes: utredarnas planerade bevisanvändning samt resonemanget bakom deras planering. Utredarna planerade oftare att avslöja bevis på ett strategiskt sätt (dvs, de bad om den misstänktes uttalande innan de avslöjade bevisen) än på ett icke-strategiskt sätt (dvs, de avslöjade bevis innan de bad om en förklaring om just det beviset). Det var bara sällan som utredarna hade planerat att använda bevisning kring de mindre kritiska faserna av brottet för att få fram medgivanden om den kritiska fasen (som de saknade information om). Med andra ord var det sällan som utredarna planerade att använda bevisen som ett medel för att få fram medgivanden.

Tre viktiga resultat framkom i studierna. För det första har denna avhandling utvecklat en bevishanteringstaktik, SUE-Konfrontation, och funnit stöd för att denna taktik är effektiv för att få fram medgivanden från misstänkta. För det andra visade resultaten stöd till de förväntade relationerna mellan principerna som ligger till grund för SUE-teknikens teoretiska plattform. Dessa principer kan användas i olika brottmål för att uppnå olika förhörs mål, till exempel att avslöja lögn och sanning. För det tredje visade denna avhandling att det var mycket sällsynt att de deltagande utredarna planerade att använda de tillgängliga bevisen som ett sätt att få fram medgivande om en fas av ett brott för vilken bevis saknades. SUE-Konfrontationstaktiken bör ingå i polisens träning om hur man kan förbättra förhör med misstänkta.



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## PREFACE

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This thesis is based on the following four studies, which are referred to by their Roman numerals:

- I. Tekin, S., Granhag, P. A., Strömwall, L. A., Mac Giolla, E. (2014). *Strategic interviewing to elicit admissions: Guilty versus innocent suspects*. Manuscript in preparation.
- II. Tekin, S., Granhag, P. A., Strömwall, L. A., Mac Giolla, E., Vrij, A., & Hartwig, M. (2015). Interviewing strategically to elicit admissions from guilty suspects. *Law and Human Behavior*, 39, 244–252. doi: 10.1037/lhb0000131
- III. Tekin, S., Granhag, P. A., Strömwall, L. A., & Vrij, A. (2016). How to make perpetrators in denial disclose more information about their crimes. *Psychology, Crime & Law*, 22, 561–580. doi: 10.1080/1068316X.2016.1168425
- IV. Tekin, S., Granhag, P. A., Strömwall, L. A., & Vrij, A. (in press). Police officers' use of evidence to elicit admissions in a fictitious criminal case. *Journal of Investigative Psychology and Offender Profiling*.

Study III was funded by the *European Commission Framework Partnership Agreement* (FPA) [grant number 2013-0036] and *Specific Grant Agreement* (SGA) [grant number 2013-0678].





## ACKNOWLEDGEMENTS

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This thesis was made possible by all the help and support I received from many persons, and I would like to acknowledge those who have been with me on this exciting journey.

I feel privileged to have received supervision from and worked with the dream-team in my research area! Prof. Pär Anders Granhag, thank you for your mentorship and for teaching me a new way of thinking. You always asked me to extend my limits to get the best out of me as a researcher. I appreciate this more and more each day. Prof. Leif A. Strömwall, your brilliant mind is matched only by your kind and caring personality. You have amazed me each time that I have asked for your guidance, showing me a new angle that I have never thought of before. Thank you for your valuable advice not only regarding my work but also regarding the survival of a young researcher in academia. Prof. Aldert Vrij, thank you for your guidance, suggestions, encouragement, and support. I learned a lot from you. Finally, Dr. Samantha Mann and Dr. Sharon Leal, I am grateful for your assistance and suggestions throughout my PhD.

I would also like to thank the members of the Criminal, Legal and Investigative Psychology (CLIP) research unit, as well as the members of the House of Legal Psychology. It has been an honour and a true pleasure to be a part of these groups! My relationships with each and every one of you have proven to be rewarding in many ways.

This thesis would not have come into being if it was not for Chantal Meertens and Ann Backlund. You have been patient, always responded to my never-ending questions with a smile, and helped me a great deal. Thank you! Thanks also to Prof. Kevin Colwell for providing valuable feedback on this thesis.

There were many who provided assistance throughout my PhD project. I thank Erik Adolfsson and Jeanette Lundgren for their help in collecting data; Andreas Aspholmer, Christina Dottax, Danielle Evans, Adam Harvey, Emily Ingram, Kristina Nordth, Zarah Verhnam, and Sissel Thurang Wallstedt for conducting interviews with participants; and Martijn van Beek, Robert Horselenberg, Ivar Fahsing, and Ivar Husby for helping me to contact police officers for one of the studies. Also, thank you Dr. Erik Mac Giolla for your collaboration (and for your friendship).

I also thank my lovely family. You are a great source of joy to me! Particular thanks to my mum and dad for continuously encouraging me and for giving me every opportunity to thrive. During the darkest periods of this journey, it was *your* voices that echoed in my head, telling me ‘You can do it!’ I love you guys!

My dear friends, Oğuzhan and Müge: we may be born to different parents, but I consider you two as my siblings. You have shared with me the ups and downs of my PhD years. I turned to you when I wanted to laugh, when I needed comfort, when I was full of worry, and when I had breaking news... Thank you for that!

Luckily for me, I had more friends on board. Helen, it is a luxury to have someone like you around who cares, loves and listens. Aartje, we have witnessed each other's social and professional growth for many years now – it felt better to take each step knowing that you were there. Nathalie and Tanja, having you as peers in the PhD program made it more enjoyable. Tuule, Erik A., Linda, Melanie and Emma, your friendship means a lot to me. Thank you for all the nice memories and for your support throughout the years.

Louise and Örjan, your positivity and generosity are admirable. It always makes me happy to be around you. Thank you for being very supportive and caring.

...And my dear Staffan, my husband, my best friend...I do not know if I have words in any language to describe how important you are to me. You made my life even more beautiful the day you entered it and you surely made my PhD journey easier. You did this not only by providing me with infinite love and support, but also by inspiring me through our numerous nerdy discussions. Our relationship has been nurturing me both emotionally and intellectually ever since we met. I am forever thankful.

A new journey lies ahead now, and I am looking forward to it!

Serra Tekin  
Houston, 29 June 2016





## INTRODUCTION

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Consider a woman having been murdered. The crime took place sometime between 1.30 am and 2.30 am on a Sunday morning when she was walking back from a party. The subsequent investigation led to the arrest of a suspect. At the point of arrest, the police had no clear link between the suspect and the crime scene, and the suspect denied any wrongdoing. The police lacked information pertaining to the critical phase of the crime, i.e. between 1.30 am and 2.30 am, but possessed information pertaining to less critical phases. For example, they had several pieces of evidence about the suspect's activities before the crime (the suspect's internet browser history showed that the victim's Facebook profile had been repeatedly visited two days before she was killed) and after the crime (the suspect made two phone calls to a friend after 3 am on the night of the murder). This scenario mirrors features that are frequently encountered in real-life investigations. That is, investigators possess evidence on several less critical phases of a crime, but lack information about the most critical phase. In such situations, the information elicited from the suspect about the critical phase may be key to the investigation. How then should the available evidence be used to elicit new and critical information from the suspect? The goal of the current thesis is to provide an answer to this question.

The primary aim of a suspect interview is to collect relevant and critical information (Memon, Vrij, & Bull, 2003). If accurate and useable information is obtained, it can substantiate a suspect's innocence or alternatively his or her guilt later in court. There is increasing interest among psycho-legal researchers to find ways to gather information from suspects using effective and ethical methods (e.g. Meissner, Kelly, & Woesthoff, 2015; Walsh & Bull, 2015). The aim of this line of research is to offer approaches that may result in true admissions or true confessions (Meissner, Hartwig, & Russano, 2010). For instance, humane approaches (e.g. rapport building) have been found to be more effective for collecting information than dominant approaches (e.g. pressing for information) (Alison, Alison, Noone, Elntib, & Christiansen, 2013; Evans et al., 2013; Mann et al., 2013). However, these approaches are rather broad, and the literature is scarce with respect to specific tactics for eliciting new and critical information (admissions) from suspects.

Evidence plays an important role in information elicitation (Bull, 2014). In a majority of criminal cases, the interviewer possesses some incriminating evidence against the suspect (Wachi et al., 2014; Wagenaar, van Koppen, & Crombag, 1993), and uses this evidence in the interview (Hill & Moston, 2011; Kelly, Miller, & Redlich, 2015; Sellers & Kebbell, 2011; Soukara, Bull, & Vrij, 2002; Soukara, Bull, Vrij, Turner, & Cherryman, 2009). Given this, researchers have paid considerable attention to the impact of evidence disclosure on interview outcome. The work has focused primarily on how to use the evidence to: (a) obtain confessions (e.g. Jordan, Hartwig, Wallace, Dawson, & Xhihani, 2012; Kelly et al., 2015; Soukara et al., 2009); (b) assess veracity by obtaining verbal cues to deception and truth (e.g. Dando & Bull, 2011; Hartwig, Granhag, Strömwall, & Vrij, 2005); and (c) obtain more comprehensive statements (e.g. Walsh & Bull, 2010; 2015).

However, very little is known as to how to use the available evidence effectively to elicit admissions.

## The thesis

The general aim of this thesis is to remedy the paucity of research with respect to specific interviewing tactics aimed at using the available evidence to elicit admissions. Moreover, two specific aims are set out. The first specific aim is to introduce and empirically test an interviewing tactic that derives from the Strategic Use of Evidence framework (the SUE framework; Granhag & Hartwig, 2015). In this tactic, called the SUE-Confrontation, the interviewer first elicits verbal cues to deceit by using the available evidence in a strategic manner, and then uses these cues to elicit admissions (Studies I, II, and III). The second specific aim is to explore police officers' planned use of the available evidence when the objective is to elicit admissions (Study IV).

The thesis is organised as follows. First, I will define the key terms used throughout this thesis. Second, I will provide an overview of the literature regarding the collection of information in suspect interviews. Third, I will focus on how the evidence is commonly used in suspect interviews, and how certain evidence disclosure techniques may affect the outcome of the interview. Fourth, I will introduce the SUE framework, and discuss how the principles underlying this framework can be used to elicit admissions from guilty suspects. Finally, I will summarise the empirical studies and conclude with a general discussion.

## Key terms and definitions

In this thesis, the term *evidence* refers to the body of incriminating information collected during a police investigation about a suspect's potential involvement in a criminal act. In other words, this term is used to refer to the interviewer's knowledge about a case and a suspect, rather than the information presented in court. Another term used frequently in this thesis is *elicitation*. This refers to strategies and tactics used by the interviewer to influence the suspect to disclose information that s/he would not otherwise reveal so as not to incriminate himself or herself.

### Information/ Admission / Confession

This thesis makes a distinction between the terms information, admission, and confession. *Information*, which is the broadest term of the three, refers to anything that a suspect discloses in an interview. A piece of information collected from a suspect may range from being unrelated to the investigation (e.g. the suspect stating his or her mother's name) to being incriminating (e.g. the suspect admitting to having killed the victim). The information disclosed by a suspect that is potentially incriminating is referred to as an *admission*. More specifically, an admission corresponds to critical information previously

unknown to the interviewer that may provide new leads for further investigation or establishes whether the suspect is linked to the crime (Perry, 2012). For instance, a suspect may admit to being in possession of stolen goods whilst denying having stolen them, or may admit to being at the crime scene on the night of a murder while denying having killed the victim. These admissions are potentially incriminating even though the suspect does not admit having committed the crime (i.e. confessing).

Lastly, a *confession* refers to a statement in which the suspect acknowledges having committed the crime (Kassin & Gudjonsson, 2004). In essence, a confession occurs when the suspect says 'I did it'. However, a confession does not necessarily correspond to a detailed story about the crime. In fact, a confession may be insufficient to lead to a prosecution if the suspect's story is not supported by further evidence. In contrast, a statement that consists of admissions may provide basis for prosecuting a case even in the absence of a confession (Moston & Engelberg, 2011). Overall, this thesis is concerned with eliciting admissions, i.e. new and critical information, rather than obtaining full-fledged confessions.

### Approach / Technique / Tactic

The different (and admittedly, sometimes rather confusing) terminology used across studies that have tested the efficiency of suspect interviews has encouraged researchers to come up with taxonomies (e.g. Kelly, Miller, Redlich, & Kleinman, 2013). In this thesis, I will adopt the taxonomy that was recently developed by Kelly and colleagues (2013). At the broadest level, suspect interviews can be sorted into different *approaches*. These provide a generic framework that interviewers can employ to achieve their interview goals. A framework can be defined as a tool that offers a coherent scheme that comprises appropriate pathways to reach the goals of a particular approach. Of relevance to this thesis is the dichotomy of information gathering versus accusatory approaches (Kelly et al., 2013). For an information gathering approach, the goal of the interview is to collect information from the suspect. In contrast, for an accusatory approach, the aim is to obtain a confession. An example of a framework that is created based on an information gathering approach is the five-stage PEACE model of suspect interviewing used in England and Wales (**P**lanning and preparation, **E**ngage and explain, **A**ccount, **C**losure, **E**valuation, see Milne & Bull, 1999). An interviewer who adheres to the PEACE model typically devotes time to prepare for the interview, ensures that the suspect is well informed about his or her rights, aims to build rapport and trust, obtains the suspect's statement through open-ended rather than close-ended questions, and avoids using leading or misleading questions. In sharp contrast, an interviewer who adopts an accusatory approach aims to obtain a confession by acting in a confrontational manner and being psychologically manipulative.

On a more specific level, *techniques* offer defined ways to achieve the goal of the interview. For instance, the SUE technique (Hartwig et al., 2005), which falls under the category of information gathering approaches, offers specific tactics and guidelines in relation to when and how to disclose the evidence to the suspect so as to elicit verbal cues to deception and truth. A different example is the Reid technique, which can be categorised among the accusatory approaches (see Inbau, Reid, Buckley, & Jayne, 2013).

An interviewer who uses the Reid technique attempts through psychological manipulation to persuade the suspect to confess to the crime (for criticism of the Reid technique, see Hartwig, Granhag, & Vrij, 2005).

Furthermore, a *tactic* is an even more detailed and specific way to achieve the goal of the interview. For instance, a SUE tactic, namely the Evidence Framing Matrix, provides guidance as to how to frame a piece of evidence while disclosing it in an interview to detect deception and truth (Granhag, Strömwall, Willen, & Hartwig, 2013). Similarly, the tactics advised by the Reid technique offer ways to make a suspect compliant so that s/he confesses (Kassin & McNall, 1991). For instance, the interviewer exaggerates the seriousness of the crime and expresses belief in the suspect's guilt (maximisation) or downplays the seriousness of the crime, offers face-saving excuses, and blames the victim (minimisation). Taken together, an approach provides a framework for suspect interviewing and is not as specific as a technique, which offers a detailed plan to steer the interview in the direction of the interview goal. A tactic is the most specific of all by providing the most in-depth plan to achieve the goal of the interview.

## Information gathering in suspect interviews

Until recently, the majority of interviewers within law enforcement adopted the goal of obtaining a confession in a suspect interview (Bull, 2014). In a confession-oriented interview, the interviewer typically presumes that the suspect is guilty, and may use different forms of trickery and deceit to secure a confession (e.g. accusing the suspect of the crime in question, presenting false evidence, and isolating the suspect from friends and family) (Hill & Moston, 2011; Kassin, Goldstein, & Savitsky, 2003; Kassin et al., 2007; Leo, 2008; Moston & Engelberg, 1993). However, using psychological pressure runs the risk that suspects will admit to crimes that they have not committed (Innocence Project, n.d.). In other words, accusatory approaches may place the innocent in the position of making a false confession (for detailed reviews of false confessions, see Gudjonsson, 2003; Kassin, 2005; Kassin, 2008, Kassin & Gudjonsson, 2004). The need to prevent such miscarriages of justice resulted in the introduction of the Police and Criminal Evidence Act in England and Wales (PACE, 1985), which was followed by the development of the PEACE model of interviewing. This model has pioneered ethical suspect interviewing, and has replaced the previous coercive and confession-oriented approach with an information gathering approach where the focus is on gathering reliable information (Bull & Soukara, 2010; Milne & Bull, 1999).

The findings of studies comparing information gathering approaches to accusatory approaches speak in favour of the former (Meissner et al., 2014). More specifically, information gathering approaches (vs. accusatory) increase the likelihood of obtaining true confessions (Meissner et al., 2015; Meissner, Redlich, Bhatt, & Brandon, 2012) and yield more accurate information (e.g. Alison et al., 2013; Evans et al., 2013; Goodman-Delahunty, Martschuk, & Dhami, 2014; Walsh & Bull, 2015). This is mainly attributed to the fact that a suspect who is faced with a friendly and respectful interviewer is more likely to be cooperative (Bull & Soukara, 2010, Study 3; Snook, Brooks, & Bull, 2015;



St-Yves, 2006; Vrij, Mann, & Fisher, 2006). Conversely, a suspect who perceives the interviewer to be aggressive and unfriendly loses his or her motivation to cooperate and tends to be conservative in divulging information (Holmberg & Christianson, 2002; O'Connor & Carson, 2005).

It is possible to group a number of techniques under the umbrella of information gathering approaches. Some examples of such techniques are: the Cognitive Interview for Suspects (CIS; Geiselman, 2012); Assessment Criteria Indicative of Deception (ACID, see Colwell, Hiscock-Anisman, & Fede, 2013); and the SUE technique (Hartwig et al., 2005). While they share the goal of enhancing information gathering, each technique focuses on different aspects in order to achieve this goal. The CIS, which is a modified version of the Cognitive Interview (Fisher & Geiselman, 2010), draws on basic psychological principles to promote memory retrieval. This is achieved through the use of social dynamics (e.g. establishing a well-grounded relationship), communication (e.g. encouraging suspects to say more), and drawing on cognitive processes (e.g. using mnemonics). The ACID is a deception detection technique that aims at maximising the differences between truth tellers and liars with respect to their behaviours related to memory and impression management. The story recounted by a truth teller, as opposed to that told by a liar, inherently comprises features such as vividness (e.g. more words and details) and spontaneity (e.g. unique details added after the initial free narrative). If the interviewer aims at increasing the recall of a truth teller (by obtaining a free narrative, posing forced-choice questions, and using mnemonics), these features will become apparent in his or her statement (Colwell, Hiscock-Anisman, Memon, Taylor, & Prewett, 2007). Furthermore, the SUE technique proposes a strategic way of interviewing with the focus on using the evidence to magnify the differences between liars and truth tellers (Hartwig, Granhag, & Luke, 2014). The SUE technique will be explained in more detail below.

Of relevance to the current thesis are the techniques that involve the presentation of evidence. Below, I will summarise the literature related to the use of evidence in suspect interviews.

## Evidence use in suspect interviews

A central question in psycho-legal research concerned with the use of evidence is when to disclose the evidence to the suspect during an interview. Examinations of real-life interviews (e.g. King & Snook, 2009; Leo, 1996; Read, Powell, Kebbell, Milne & Steinberg, 2014; Sellers & Kebbell, 2011) and interviewers' self-reports (Granhag, Clemens, Strömwall, & Mac Giolla, 2015; Smith & Bull, 2014; Walsh, Milne, & Bull, 2016) reveal a lack of consensus regarding the timing of evidence disclosure. For instance, one study conducted in the US by Leo (1996) showed that in more than 80% of the interviews examined, the interviewers disclosed the evidence early in the interview. That is, the interviewers in many cases made the suspects aware of the information which existed against them before posing questions about the crime in question. An analysis of 44 suspect interviews in Canada revealed similar findings; in that 82% of the interviews

started with the interviewers confronting the suspect with the evidence (King & Snook, 2009). An examination of interview records from Australia and England combined showed that the interviewers disclosed the evidence early in the interview about 50% of the time, with late disclosure occurring in only 9% of the interviews (Read et al., 2014). Other studies conducted in Australia paint a somewhat different picture. Sellers and Kebbell (in their analyses of real-life interviews, 2011) and Smith and Bull (in their self-report study, 2014) found that late disclosure of evidence occurred more frequently and was preferred more frequently than early disclosure of evidence. These interviewers commonly preferred to obtain the suspects' statements before they disclosed the evidence, with disclosure taking place towards the end of the interview (also see Bull & Soukara, 2010, Study 4). Another set of studies, conducted in England and Wales, showed that the interviewers opted for a third evidence disclosure mode, i.e. gradual disclosure of evidence, rather than late or early disclosure (Walsh & Bull, 2015; Walsh et al., 2016). In this instance, most of the interviewers drip-fed the evidence throughout the interview. Furthermore, Walsh and Bull (2015) found that the interviewers employed two different forms of gradual disclosure. One of these was termed 'deferred gradual disclosure', in which the interviewers initially aimed to obtain an account from the suspect that covered all aspects of the crime in question. Once this account had been acquired, the interviewers returned to the suspect's statements, and required explanations regarding any contradictions with the evidence, while revealing the evidence gradually. The other gradual disclosure mode used was termed 'reactive gradual'. Also for this disclosure mode, the evidence was revealed in stages, but the revelation was made before the suspect's account was collected in full. The suspect was challenged immediately after an inconsistency occurred between his or her statement and the evidence held by the interviewer.

The fact that interviewers have different interview purposes may account for the observed differences in their preferences regarding disclosure of the evidence. The aim of the interview, whether it is to obtain a confession or to gather information, may affect the preferred timing of evidence disclosure by the interviewer. For instance, it is plausible that an interviewer who seeks to obtain a confession chooses to confront the suspect with the evidence at the start of the interview (e.g. Inbau et al., 2013). This choice may be based on the belief that early revelation is a demonstration of how strong the evidence is, leaving the suspect with no choice other than to confess (Moston, Stephenson, & Williamson, 1992; Walsh et al., 2016). Conversely, an interviewer who aims to gather information in an open-minded fashion will likely turn to late or gradual disclosure to be able to obtain the suspect's side of the story.

### Outcomes of evidence use

In addition to the body of research with respect to interviewers' preferred evidence disclosure modes, a substantial amount of research exists on the outcome of different evidence disclosure modes. Researchers have commonly investigated the effects of evidence disclosure on obtaining true confessions (e.g. Soukara et al., 2009, Walsh & Bull, 2012), information (e.g. Walsh & Bull 2010; 2015) and the detection of deception and truth (e.g. Hartwig et al., 2005). Below, I will review the literature with respect to the

association between evidence disclosure modes and the obtaining of information as well as the detection of deception.

*Information gathering.* Very little research has been conducted regarding the role of evidence disclosure in information gathering. In fact, to the best of my knowledge, only two studies have addressed this issue (Walsh & Bull 2010; 2015). In their two studies, Walsh and Bull examined the association between interviewing skills and the interview outcomes by analysing recordings of interviews conducted with benefit fraud suspects in England and Wales. First, the researchers categorised the interviewers based on their interviewing skills; the more an interviewer adhered to the PEACE guidelines, the more skilled s/he was considered to be. According to the PEACE model, a skilled interviewer, among other things, refrains from disclosing the evidence early in an interview, and focuses initially on obtaining the suspect's free narrative. Second, the researchers categorised the outcomes of the interviews as 'desired' or 'undesired'. A desired outcome was defined as either a comprehensive account (regardless of whether any guilt was admitted) or a full and frank confession. Both studies found that being skilled at interviewing in line with the PEACE model was positively associated with gathering comprehensive accounts from the suspects. In addition, Walsh and Bull (2015) ran separate analyses in which they compared different evidence disclosure techniques with respect to the interview outcomes. The results revealed that the gradual disclosure of evidence was correlated positively with gathering comprehensive accounts, while the likelihood of gathering such accounts was lower for late and early disclosures of the evidence. In addition, the number of interviews that yielded desired outcomes was higher when the interviewer used deferred gradual disclosure, as opposed to reactive gradual or late disclosure. While these studies provide valuable knowledge, no specific measure was taken to identify the incriminating value of the information elicited. Put differently, it is unclear whether the comprehensive accounts provided by the suspects consisted of an expanded knowledge of the evidence already held (i.e. more information about the suspects' activities already suggested by the evidence) or contained new and critical information about a phase of the crime for which information was lacking.

*Detecting deception.* An interviewer's ability to assess the veracity of the statements made by a suspect, i.e. whether or not s/he is telling the truth, is valuable for an investigation. The studies that have evaluated the accuracy of the veracity judgements made by interviewers have typically required them to; (a) watch videotapes of people providing either a truthful or a deceitful statement (e.g. Vrij & Mann 2001); and (b) conduct interviews with mock suspects (e.g. Dando & Bull, 2011; Hartwig, Granhag, Strömwall, & Kronkvist, 2006). These procedures are followed by obtaining the interviewers' judgements as to whether the people they watched or interviewed are lying or telling the truth. The findings reveal that law enforcement professionals are generally not skilled at discriminating between liars and truth tellers (Aamodt, & Custer, 2006; Colwell, James-Kangal, Hiscock-Anisman, & Phelan, 2015; Meissner & Kassin, 2002; Vrij, 1993). This can be attributed to the fact that interviewers, in making veracity judgements, rely on non-verbal cues (e.g. suspects' hand and leg movements or gaze aversion; Hartwig & Bond,

2008) which have been found to be weak and unreliable indicators of deceit (see De Paulo et al., 2003).

Recently, researchers have focused on developing interviewing approaches and techniques that can produce reliable verbal cues for detecting deception. This wave of deception detection research includes approaches and techniques aimed at magnifying verbal differences between suspects who are lying and those who are telling the truth. One example is the aforementioned ACID technique (Colwell et al., 2013). For the ACID technique, the interviewer assesses a suspect's statement for certain content criteria so as to be able to make a judgement about the suspect's veracity status. Another example is the cognitive load approach (see Vrij, Fisher, & Blank, 2015; Vrij, Fisher, Blank, Leal, & Mann, in press), which rests on the notion that lying is more cognitively demanding than truth telling (Vrij, 2008). If a suspect's cognitive load is increased, for example by asking him or her to provide his or her account in reverse chronological order, a lying suspect will have difficulty managing this request as opposed to a truth telling suspect. Moreover, an interviewer may pose unanticipated questions to detect deception (see Vrij & Granhag, 2012). This technique is based on the assumption that when faced with an unanticipated question, a truth teller will be able to answer it by delving into his or her memory. In contrast, a liar who has not prepared an answer for this question will have difficulty coming up with a convincing response on the spot. A last example is the SUE technique, which relies on the premise that liars and truth tellers differ in terms of their verbal behaviours. An interviewer may exploit this difference by using the available evidence in a strategic manner (Granhag & Hartwig, 2015). I will provide a detailed overview of the SUE research program below.

In deception detection literature, researchers typically design an experimental set-up to compare evidence disclosure modes with respect to specific outcomes. Furthermore, they commonly employ a mock crime paradigm. Participants either commit a mock criminal act (guilty) or a similar noncriminal act (innocent), after which they are interviewed as suspects according to one of several different interview protocols. Guilty suspects are instructed to deny any wrongdoing (i.e. to lie about their criminal activity) during the interview. The activities performed by the participants generate identical pieces of evidence for the guilty and innocent conditions (e.g. a witness who had seen the suspect enter a store from which a wallet was stolen), and the interview protocols differ with respect to how this evidence is disclosed (e.g. late, gradual, or early). These interviews can then be used to: (a) make veracity judgements (e.g. Dando & Bull, 2011); and (b) assess whether or not suspects' statements contain verbal cues to deceit (e.g. Hartwig et al., 2005).

Comparisons of the late, gradual, and early disclosure techniques in the laboratory with respect to accuracy rates generated somewhat mixed findings. For instance, some studies have found that disclosing the evidence late in an interview yields higher overall accuracy rates in judging suspects' veracity than disclosing the same evidence early (Hartwig et al., 2005; Hartwig et al., 2006; Luke et al., 2016). Another set of studies has found that the gradual disclosure of evidence results in higher overall accuracy rates than

late or early disclosure of the same evidence (Dando & Bull, 2011; Dando, Bull, Ormerod, & Sandham, 2015). These studies have been primarily concerned with how evidence disclosure can improve observers' accuracy in judging the suspects' veracity. Another line of research has focused on obtaining verbal cues to deceit through the use of evidence disclosure. That is, by using the evidence in a certain manner, researchers have tried to obtain statements that can be used to distinguish a liar from a truth teller. The pioneering technique in this area is the SUE technique (Granhag & Hartwig, 2015).

*Detecting deception using the SUE technique.* The SUE technique provides an empirically established way to disclose evidence in order to elicit cues to deception and truth (Granhag & Hartwig, 2015). The technique relies on the premise that liars (guilty suspects) and truth tellers (innocent suspects) differ in their counter-interrogation strategies, that is, in their attempts to convince the interviewer of their innocence (Granhag & Hartwig, 2008). Research has shown that innocent suspects are verbally forthcoming, whereas guilty suspects tend to be withholding of critical information (Hartwig, Granhag, & Strömwall, 2007; Hartwig, Granhag, Strömwall, Wolf, Vrij, & Roos af Hjelmsäter, 2011; Hines et al., 2010; Strömwall, Hartwig, & Granhag, 2006). The evidence held by the interviewer can be used strategically to exploit this difference. The strategic use of the evidence entails the interviewer posing questions to obtain the suspect's narrative, exhausting the alternative explanations to the evidence, and making the suspect address the evidence before it is revealed to him or her. In such an interview, a guilty suspect, without knowing what information the interviewer holds, will typically contradict the interviewer's knowledge. Hence, the interviewer will elicit a statement-evidence inconsistency. In contrast, an innocent suspect will be forthcoming with information, showing a much lesser degree of statement-evidence inconsistency. Hence, the degree of statement-evidence inconsistencies can be used as a cue to deception or truth (e.g. Clemens, Granhag, & Strömwall, 2011; Hartwig et al., 2014).

Research findings accord with the assumptions outlined above, revealing that strategic interviewing results in more and stronger verbal cues to deceit (i.e. statement-evidence inconsistencies), compared to disclosing the evidence early in the interview. That is, studies have shown that guilty suspects interviewed with the SUE technique are significantly more inconsistent with the evidence than innocent suspects. In contrast, when the evidence is disclosed at the outset of the interview, the statements made by guilty and innocent suspects do not differ with respect to the degree of statement-evidence inconsistency (Hartwig et al., 2005; Hartwig et al., 2011; Jordan et al., 2012). Moreover, Sorochinski and colleagues (2013) found that withholding the evidence until the end of the interview produced more pronounced verbal differences (i.e. statement-evidence inconsistencies) between the guilty and innocent suspects, compared to when the same evidence was disclosed gradually. Importantly, the early disclosure of evidence resulted in the smallest difference between the guilty and innocent suspects. It is not surprising that early disclosure of evidence is inefficient at detecting deception. Revealing the evidence at the outset of the interview provides a guilty suspect with the opportunity to come up with a story that is consistent with the evidence. Put differently, a guilty suspect, knowing which information the interviewer holds, typically avoids contradicting the interviewer's

knowledge. In summary, early disclosure of evidence makes it difficult for an interviewer to discriminate between a guilty suspect and an innocent suspect (Hartwig et al., 2005).

Granhag and colleagues (2013) introduced another measure within the SUE research program, i.e. within-statement inconsistency, which can be used as a verbal cue to deceit. Within-statement inconsistency occurs when a suspect contradicts his or her initial statement by changing his or her story. This cue can be elicited through the use of the Evidence Framing Matrix (EFM). According to the EFM, a single piece of evidence can be framed differently at each step of evidence disclosure. This tool is based on two dimensions: (a) the strength of the source of the evidence (weak and strong); and (b) the degree of the precision of the evidence (low and high). For instance, an interviewer may possess CCTV footage that shows the suspect buying a suitcase of the same model and colour as the one subsequently found to contain bomb material. The source of this evidence can be framed as weak ('We have information telling us that . . .') or as strong ('We have CCTV footage showing us that . . .'). The specificity of the evidence can be framed as low ('. . . you visiting a luggage store') or as high ('. . . you buying a particular suitcase'). These two dimensions can be used in various ways with respect to framing a piece of evidence during evidence disclosure. For example, the interviewer starts the interview in line with the SUE technique (obtains the suspect's free recall and exhausts alternative explanations to the evidence), and thereafter reveals the evidence in the most indirect form of framing (weak source strength and low specificity). The interviewer then frames the evidence more and more directly throughout the interview (strong source strength and high specificity). Granhag and colleagues compared this stepwise disclosure, which they termed 'SUE-Incremental', with late (the traditional SUE interview) and early disclosures. The SUE-Incremental interview resulted in the largest difference between the guilty and innocent suspects with respect to statement-evidence inconsistencies and within-statement inconsistencies. However, Luke et al. (2013) failed to replicate some of the findings of Granhag et al. (2013). They compared two incremental interview conditions (the evidence was disclosed with increasing specificity in either two or four steps) with late and early disclosure conditions. Overall, the guilty suspects (vs. innocent suspects) had more within-statement inconsistencies. However, the interview condition did not have any effect on the number of within-statement inconsistencies in the guilty suspects' statements. Moreover, a minority of the innocent suspects revised their statements during the interview, unlike in the study by Granhag and colleagues where none of the innocent suspects made revisions to their statements. Luke and colleagues speculated that these findings may have been due to the differences between the samples, the instructions given to the participants or the manner in which the evidence was presented.

Each piece of evidence that is used to elicit verbal cues to deceit (i.e. statement-evidence inconsistencies and within-statement inconsistencies) pertains to a certain theme (topic). That is, the evidence that an interviewer possesses about a case can be organised into different themes (Granhag, 2010), for example, the suspect's phone records, the suspect's browser history, and the direction in which the suspect was going on the night of the crime (as caught on CCTV footage). In a SUE interview, when an interviewer

addresses a piece of evidence, the suspect's verbal response (e.g. statement-evidence inconsistency) provides the interviewer with more information about the theme to which this particular evidence pertains (e.g. the suspect stating to have walked in the opposite direction). In other words, the interviewer will be expanding his or her knowledge of the theme about which s/he is posing questions, but not about another theme. Based on this, it can be said that in deception research the strategic disclosure of evidence is used as an end in itself. This thesis proposes to take the strategic use of evidence one step further. That is, cues to deceit obtained by using the evidence strategically will be utilised to elicit information pertaining to a theme other than the one to which the disclosed evidence pertains. More specifically, this thesis proposes to use the evidence in a strategic manner as a means of eliciting information about a theme for which the interviewer lacks information. In summary, the evidence will be used as a means to an end, rather than as an end in itself. For this purpose, this thesis introduces an interviewing tactic that is derived from the SUE framework.

## The Strategic Use of Evidence framework

The SUE technique rests on a set of general principles that allow the development of evidence disclosure tactics that are tailored to achieve a specific goal in an interview (Granhag & Hartwig, 2015). These principles are based upon: (a) the suspect's perception of the evidence; (b) the suspect's counter-interrogation strategies; and (c) the suspect's verbal responses.

### The suspect's perception of the evidence

The perception of the evidence refers to the suspect's views about the amount of information that the interviewer holds about the crime in question. Most suspects form a hypothesis about what information the interviewer might have about them (e.g. their whereabouts and activities) and the crime (e.g. Moston & Engelberg, 2011; Sellers & Kebbell, 2011). Research has shown that this is particularly true for suspects who are guilty of the crime under investigation (Hartwig et al., 2007). The suspect's perception may or may not correspond to the actual amount of information that the interviewer holds. To be more specific, while a suspect may predict with accuracy how much information the interviewer holds, s/he can also underestimate or overestimate the amount of information held by the interviewer.

### The suspect's counter-interrogation strategies

As mentioned above, research has shown that guilty and innocent suspects employ different verbal counter-interrogation strategies to convince the interviewer that they are innocent (Granhag & Hartwig, 2008; Hines et al., 2010). Since guilty suspects possess information that they must conceal to avoid incriminating themselves, they typically employ withholding strategies (Granhag, Clemens, & Strömwall, 2009). In contrast, innocent suspects often have no incriminating information to conceal, so they typically adopt forthcoming verbal strategies, and provide detailed statements so that the

interviewer will come to know the truth (Colwell et al., 2013; Kassin, 2005; Strömwall et al., 2006).

These inherent differences between guilty and innocent suspects can be explained through the lens of a social cognitive framework, namely the theory of self-regulation (e.g. Carver & Scheier, 2012). This framework provides an understanding of how people regulate their behaviour to reach a goal or to avoid an undesired outcome. In an investigative interview, the desired goal for both guilty and innocent suspects is to convince the interviewer that their statement is true. The main threat for a guilty suspect is that the interviewer will come to know incriminating details about the crime. To evade this threat, s/he regulates his or her behaviour to avoid disclosing incriminating details, while at the same time providing an alternative account in order to appear credible. In summary, a guilty suspect needs to engage in strategic decision-making regarding what types of information to avoid, deny and admit during an interview.

The main threat for an innocent suspect is that the interviewer may not come to know the truth. However, an innocent suspect does not face the same information-management dilemma as does a guilty suspect. Instead, s/he will often provide a complete and truthful account to avoid the threat of being assessed as guilty. Two phenomena can help explain why innocent suspects are verbally forthcoming. First, the strategies adopted by innocent suspects may be influenced by a belief in a just world. That is, one gets what one deserves and one deserves what one gets (Lerner, 1980). Innocent suspects may feel confident that if they are forthcoming they will be believed by the interviewer simply because they deserve it. Second, innocent suspects' forthcomingness may be based on an illusion of transparency (Gilovich, Savitsky, & Medvec, 1998). That is, people believe that their internal states are more visible to others than they are in reality (Kassin, 2005). This tendency may cause innocent suspects to believe that their truthfulness will be transparent once the interviewer really pays attention to their story.

An interesting question arises concerning the extent to which suspects change their counter-interrogation strategies during the course of an interview. The empirical findings are contradictory. For instance, a number of studies has found that a guilty suspect's initial strategy is unlikely to change (Alison et al., 2013; Baldwin, 1993; Deslauriers-Varin, Beauregard, & Wong, 2011; Moston et al., 1992; Soukara et al., 2009). If a guilty suspect decides to deny any wrongdoing before the interview, s/he will typically maintain this initial position throughout the interview. Conversely, Walsh and Bull (2012) have found that skilful interviewing (adherence to the PEACE guidelines) was associated with suspects shifting from an initial denial to a confession. This finding is important as it reveals that an interviewer's interviewing strategy may influence a guilty suspect's decisions. However, it is important to note that the study conducted by Walsh and Bull examined the shifts from a denial to a confession. To date, no attention has been paid to the effect of the interviewer's strategy on the extent to which a guilty suspect shifts from being less forthcoming to being more forthcoming in the absence of a confession.

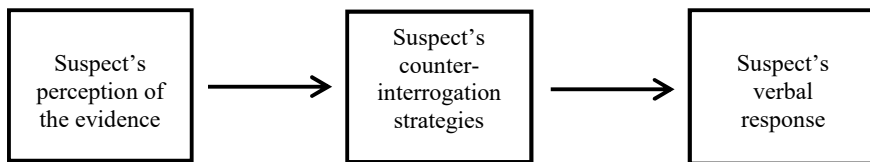


## The suspect's verbal responses

The suspect's verbal responses form the basis for evaluating the outcome of an interview, that is, (a) cues to deception and truth (the degree of statement-evidence inconsistency, and/or within-statement inconsistency); and (b) new case-relevant information (admissions). Different SUE tactics result in different verbal responses from guilty suspects. For instance, withholding the evidence until the suspect's statement is obtained and/or alternative explanations to the evidence are exhausted were found to result in a guilty suspect contradicting the interviewer's knowledge (e.g. Hartwig et al., 2005). Moreover, the SUE-Incremental tactic, i.e. disclosing the evidence in a stepwise manner, was found to result in a guilty suspect contradicting his or her own story throughout the interview (Granhag et al. 2013). Thus far, no study has addressed the elicitation of information from guilty suspects within the SUE research program.

## The relationships between the SUE principles

The relationships between the SUE principles lie at the core of the SUE framework. In essence, a guilty suspect's perception of the amount of evidence that the interviewer holds will affect his or her choice of counter-interrogation strategy. In turn, the suspect's counter-interrogation strategy will affect his or her verbal response. For an illustration of the links between these principles, see Figure 1.



*Figure 1.* The relationships between the SUE principles (adopted from Granhag & Hartwig, 2015).

Research has lent support to the inference that a guilty suspect's perception of the evidence (i.e. how much information s/he believes the interviewer to hold) affects what s/he conceals or reveals. Moston and colleagues (1992) found that the perceived strength of evidence was positively associated with confessions. These findings were complemented by self-reports obtained from convicts. That is, the convicts' decisions as to whether to confess or deny the crime in their past interviews were dependent on how much information they thought the interviewer was holding (Deslauriers-Varin, Lussier, & St-Yves, 2011; Gudjonsson & Petursson, 1991). Recent research has shown that suspects' perceptions of the evidence can also affect the information yield (Luke, Dawson, Hartwig, & Granhag, 2014; Luke, Hartwig, Shamash, & Granhag, 2015). Luke and colleagues conducted two laboratory studies that were designed to insinuate the presence of evidence to the suspects before the interview started. In brief, the experimenter informed the suspects that the interviewer possibly possessed evidence obtained from cameras (Luke et al., 2014), or an alleged defence lawyer warned the suspects regarding the strategy the interviewer was likely to use, that was, to withhold the

evidence until s/he obtained the suspect's statement (Luke et al., 2015). The guilty suspects, who were alerted to the possibility of the interviewer having incriminating evidence against them, adopted more forthcoming strategies in the interview, as opposed to guilty suspects who were not informed in this manner. The manipulations in these studies were rather simple yet effective because they provided the suspects with information which they could form a hypothesis about the amount of evidence against them. Taken together, these studies show that the more evidence guilty suspects believe the interviewer to have, the more forthcoming they will become (presumably in an attempt to avoid statement-evidence inconsistencies).

The relationships between the SUE principles come into play during an interview in which the interviewer aims to detect deceit by using the evidence strategically. More specifically, the interviewer first requires free recall and/or exhausts the suspect's alternative explanations to the evidence without revealing the evidence itself. At this stage, a guilty suspect will presumably perceive the interviewer not to hold evidence against him or her (e.g. 'The interviewer does not seem to know I went to the park on Sunday evening'). In other words, the interviewer's strategy will result in the suspect underestimating the amount of information that the interviewer holds. In turn, the suspect will adopt a withholding counter-interrogation strategy so as to avoid providing incriminating information (e.g. Hartwig et al., 2007). Hence, the guilty suspect's statement will not be in line with the evidence (i.e. there will be statement-evidence inconsistencies).

These general principles can also be used for predicting how to elicit admissions. If a guilty 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 will consider it fruitless to withhold this particular piece of information. 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'). This forthcomingness will likely be motivated by trying to avoid statement-evidence inconsistencies, the occurrence of which would undermine the suspect's credibility. The suspect's verbal response will in that case be an admission.

An important question arises from all this: How should an interviewer influence a suspect's perception of the evidence about a phase of a crime for which information is lacking in order to elicit admissions about that particular phase? In this thesis, a specific interviewing tactic, the SUE-Confrontation tactic, is proposed.

### The SUE-Confrontation tactic

The SUE-Confrontation tactic is developed based on the following assumptions: (a) a suspect's perception of how much evidence the interviewer holds is malleable; (b) a suspect's perception of the evidence affects his or her counter-interrogation strategies; and (c) counter-interrogation strategies affect what a suspect reveals or conceals during the interview. This novel tactic is labelled the SUE-Confrontation, as it draws on the SUE framework and aims to alter the guilty suspect's counter-interrogation strategies by

confronting him or her with cues to deceit (i.e. statement-evidence inconsistencies) obtained through strategic interviewing.

Below, I will explain how the SUE-Confrontation tactic can be employed in an interview for situations such as the one outlined at the very beginning of this thesis. That is, the interviewer has evidence pertaining to two comparatively less critical phases of a crime (e.g. before and after the crime), but lacks information about a third, and much more critical phase (e.g. the time period during which the crime took place). Hereinafter, the two phases for which the interviewer has evidence will be referred to as Phase 1 and Phase 2, whereas the phase for which the interviewer lacks evidence will be referred to as Phase 3 or the critical phase. It is important to note that the assumptions made for this example only apply to a guilty suspect. 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 strategy (e.g. Luke et al., 2014). Moreover, the guilty suspect is assumed to be perceptive of the interviewer's behaviour and to be acting in self-interest. Figure 2 presents a simplified illustration of the stages of the SUE-Confrontation interview.

First, the interviewer divides the interview into (three) phases. For each phase of the interview, the interviewer asks about one of the phases of the crime. The interviewer focuses on the two phases for which s/he holds evidence (i.e. Phases 1 and 2):

#### *Phase 1*

- (1) *Interviewer's strategy*: The interviewer uses the most basic component of the SUE technique, that is, s/he poses an open-ended question about Phase 1 without revealing the evidence pertaining to that phase.
- (2) *Suspect's perception of the evidence*: 'The interviewer does not mention any evidence, so s/he may not have evidence against me'. The suspect underestimates the amount of information that the interviewer holds.
- (3) *Suspect's counter-interrogation strategy*: The suspect adopts a withholding strategy to avoid providing self-incriminating information.
- (4) *Suspect's verbal response*: The suspect's statement will contain statement-evidence inconsistencies.
- (5) *Interviewer's strategy*: The interviewer confronts the suspect with these statement-evidence inconsistencies.

The interviewer repeats the same steps as above for Phase 2 [step (6) to step (10)].

Here, it is important to note that the confrontations in Phases 1 and 2 are not of an accusatory nature. They are delivered in a neutral manner, merely informing the suspect that his or her statement contradicts the evidence that is available to the interviewer. The aim of these confrontations is to make the suspect believe that the interviewer holds more evidence about the critical third phase than the suspect initially thought. More specifically, if the interviewer confronts the suspect following each open-ended question, the suspect will plausibly learn the interviewer's strategy, which is to withhold the

evidence until s/he has obtained a statement. As a result, the suspect will expect the interviewer to use the same strategy in the next phase ('The interviewer may have more evidence, and as s/he did previously, s/he will ask questions without revealing what s/he knows'). At this stage, the interviewer turns to the critical phase for which s/he lacks information:

*Phase 3*

- (11) *Interviewer's strategy*: The interviewer poses an open-ended question about Phase 3.
- (12) *Suspect's perception of the evidence*: 'The interviewer must hold more information about this phase than s/he is letting on'. At this point the suspect overestimates the amount of information that the interviewer holds.
- (13) *Suspect's counter-interrogation strategy*: 'My withholding strategy has not been working; I need to be more forthcoming in order to avoid being inconsistent with the evidence again'. The suspect adopts a forthcoming strategy.
- (14) *Suspect's verbal response*: The suspect's statement will contain admissions.

In summary, after Phase 2 (or already after Phase 1), the guilty suspect is expected to shift his or her strategy from withholding to forthcoming based on his or her inflated perception of how much information the interviewer holds about the critical phase. This forthcoming strategy will thereafter result in admissions about the critical phase for which the interviewer lacks information.

	Interviewer's strategy	Suspect's perception of evidence	Suspect's counter-interrogation strategy	Suspect's verbal response	Interviewer's strategy
Phase 1	(1) Open-ended question	(2) 'The interviewer does not know anything'	(3) Aversive	(4) Withhold	(5) Confront suspect with inconsistencies
Phase 2	(6) Open-ended question	(7) 'The interviewer does not know anything'	(8) Aversive	(9) Withhold	(10) Confront suspect with inconsistencies
Phase 3	(11) Open-ended question	(12) 'The interviewer holds more evidence than I initially thought'	(13) Forthcoming	(14) Offer admissions	

Figure 2. A simplified illustration of the stages of an interview in which the SUE-Confrontation tactic is employed.

The SUE-Confrontation interview is novel for two reasons: (a) it uses cues to deceive as a means to elicit admissions; and (b) it aims to alter the suspect's perception of the evidence, and thereby his or her counter-interrogation strategy, *during* the interview. In previous studies, the interviewer aimed to influence the suspects' perceptions and strategies *before* the interview started (Luke et al., 2014; Luke et al., 2015).

## Methodological considerations and decisions

The primary aim of Studies I, II and III of this thesis was to examine the efficacy of the SUE-Confrontation tactic for eliciting admissions from guilty suspects. These were experimental studies conducted in the laboratory. The experimental set-up was motivated by previous SUE studies in which a mock crime paradigm was used (e.g. Hartwig et al., 2005). There are two advantages to conducting interviews in a controlled environment. First, it allows comparisons of interview protocols that consist of different evidence disclosure modes, while controlling for factors that could otherwise influence suspects' responses. Second, the ground truth is available to the researchers, which is rarely the case in field studies. Having established the ground truth in the studies of the current thesis ensures that the suspects are confronted with accurate evidence.

The dependent measures used in the experimental studies were: (a) statement-evidence inconsistencies; (b) the suspects' perceptions of how much information they believed the interviewer to have had about the critical phase (Studies I, II, and III); (c) the suspects' counter-interrogation strategies (Studies II and III); (d) the admissions disclosed with respect to the critical phase (Studies I, II, and III); and (e) the suspects' forthcomingness throughout the interview (i.e. the extent to which they shared information regarding each phase of the interview; Study III). The suspects' narratives were coded as having a statement-evidence inconsistency if the suspects omitted or contradicted a piece of evidence in their statements. This coding was motivated by a categorisation of lies made by DePaulo, Kashy, Kirkendil, Wyer, and Epstein (1996), who suggested three categories of lies, two of which are relevant for the coding. These are, subtle lies whereby a liar does not volunteer relevant information in an attempt to mislead the receiver (an omission); and outright lies whereby a liar presents a version of the truth that is completely different from the real truth (a contradiction). The third category of lies is exaggerations that occur when a liar overstates or understates the facts. However, this category is not relevant for the studies included in this thesis because the suspects' statements were coded based on whether or not a fact was present. As to the suspects' perceptions of the evidence, a post-interview questionnaire was used to obtain the ratings of how much information the suspects believed the interviewer to have held about the critical phase, prior to being asked about this phase. A problem with such retrospective self-reports is that they may be influenced by the interviewer's questions about the critical phase. On the other hand, the alternative method would be to obtain these ratings during the interview, which might compromise the results by influencing the suspects' verbal responses to the subsequent questions. Therefore, retrospective self-reports were chosen as the means to capture this variable.

Study IV of this thesis turned to the field to examine police officers' planned use of evidence to elicit admissions. Previous studies have explored interviewers' behaviours by either analysing real-life interviews or obtaining interviewers' self-reports. One can argue that in self-report studies interviewers tend to provide answers that are socially desirable, with the consequence that these responses may not fully reflect their actual behaviours. However, this concern may be unfounded, since the findings from archival studies that

examined interviewers' evidence use in various countries (in the US, Leo, 1996; in Australia, Sellers & Kebbell, 2011; in the UK, Walsh & Bull, 2015) were in line with the findings obtained from interviewers' self-reports in the same countries (in the US, Kassin et al., 2007; in Australia, Smith & Bull, 2014; in the UK, Walsh et al., 2016). Moreover, given that real-life interviews are rarely available to researchers, self-report studies are a feasible way to study police officers' behaviours. Such studies are also easier to develop, more rapidly conducted, and they can reach many respondents. Therefore, Study IV was designed as a survey study.

## SUMMARY OF THE EMPIRICAL STUDIES

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### General and specific aims

The psycho-legal literature is scarce with respect to specific interviewing tactics aimed at eliciting admissions from suspects. This is somewhat surprising considering the value of new and critical information to a criminal investigation. This thesis sets out to remedy this paucity of research. The main focus of the thesis is the use of evidence to elicit admissions. This is motivated by the fact that in the majority of criminal cases, interviewers possess evidence and they (more or less tactically) use this evidence during interviews. The studies included in the thesis had two general aims; (i) to introduce and empirically test the SUE-Confrontation tactic with respect to its effectiveness for eliciting admissions by using the existing evidence strategically, and (ii) to explore police officers' planned use of the available evidence to elicit admissions.

Specifically, the aim of Study I was to test the SUE-Confrontation tactic with respect to its effectiveness to elicit admissions. The experimental set-up was designed to mimic situations in which the interviewer had information about less critical phases of the crime, but lacked information about the most critical phase. The dependent variables in Study I were the suspects' perceptions of the evidence (i.e. how much information they believed the interviewer to have held prior to being asked about the critical phase of the crime) and their forthcomingness about the critical phase (i.e. the admissions disclosed). The aim of Study II was to advance Study I. That is, the interview protocols used in Study I were refined by implementing a set of changes in their structures, one additional dependent variable was introduced (the suspects' statement-evidence inconsistencies), and potential changes in the suspects' counter-interrogation strategies throughout the interview were examined. In Study III, the aim was to increase the ecological validity of the SUE-Confrontation interview by providing the suspects with the opportunity to explain their statement-evidence inconsistencies. This interview was labelled the SUE-Confrontation/Explain. Furthermore, the shifts in the suspects' strategies were examined more closely. Finally, Study IV explored how police officers planned to use the available evidence pertaining to less critical phases of a crime, so as to elicit admissions about a more critical phase of the crime for which they lacked information. In addition, police officers' reasons behind their preferred evidence disclosure mode were examined. The four studies and the outcomes therefrom are briefly described below. For an overview of the studies included in this thesis, see Table 1.

The experimental set-up was identical in Studies I, II and III. Upon arrival at the laboratory, the participants were given instructions to take on the role of a mock criminal. They then committed a mock crime, and were interviewed as suspects using one of the three interview protocols. In these interviews, the suspects' goal was to convince the interviewers of their innocence. Following the interview, the participants completed a post-interview questionnaire in a truthful manner. The questionnaire was designed to obtain the participants' self-reports with respect to their perceptions of the evidence

(Studies I, II and III), as well as the counter-interrogation strategies that they employed throughout the interview (Study III). The participants performed the tasks individually, and the experiments took about an hour to complete. After the experiments, the participants were fully debriefed and they received a movie ticket (Studies I and II) or £5 (Study III) as compensation for their time.

Table 1. Overview of the studies included in this thesis

<b>Study</b>	<b>Method</b>	<b>N</b>	<b>Independent Variables</b>	<b>Dependent Variables</b>
<b>I</b>	Laboratory experiment	120	Interview Style <i>SUE-Confrontation vs. Early Disclosure of Evidence vs. No Disclosure of Evidence</i>  Veracity ( <i>Guilty vs. Innocent</i> )	Suspects' perceptions of the evidence  Admissions
<b>II</b>	Laboratory experiment	90	Interview Style <i>SUE-Confrontation vs. Early Evidence Disclosure vs. No Disclosure of Evidence</i>	Statement-evidence inconsistencies  Suspects' perceptions of the evidence  Admissions
<b>III</b>	Laboratory experiment	75	Interview Style <i>SUE-Confrontation vs. SUE-Confrontation/Explain vs. Early Disclosure of Evidence</i>	Statement-evidence inconsistencies  Suspects' perceptions of the evidence  Admissions  Suspects' forthcomingness
<b>IV</b>	Survey study	69	-	Investigators' planned evidence use  Investigators' reasons behind their planned evidence use



The mock crime used in Studies I, II and III was designed to mimic a situation in which the interviewer possessed evidence pertaining to several less critical phases of a crime, but lacked information on the more critical phase. Thus, the mock crime was divided into three phases: two less critical phases, and one critical phase. Each phase entailed a different task related to the crime (e.g. meeting an accomplice and stealing a file to prepare an attack). The tasks performed in the two less critical phases generated six pieces of evidence in total (three for each phase). While these pieces of evidence cast suspicion on the suspect, they did not indicate that s/he was responsible for the crime. Importantly, the interviewer did not possess information regarding the third phase. This third phase was labelled the 'critical phase' because it was essential to elicit admissions about this phase to be able to further the investigation. The participants were not informed that one of the phases of the mock crime was critical. The participants kept the written instructions with them while performing their tasks so as to avoid the heavy burden of memorising them.

The interview protocols were divided into three phases, with each phase corresponding to one of the phases of the mock crime. For instance, if the suspect's activities took place in a café in Phase 1 (e.g. meeting an accomplice), and the interviewer held evidence pertaining to this phase, there would be a phase in the interview that included questions aimed at finding out about the suspect's activities in the café. In order to explore the suspect's activities regarding the critical phase, the interviewer would ask an open-ended question (e.g. 'Can you tell me in detail what you did after you left the café?'). The interviews were conducted by trained research assistants who were blind to the suspects' veracity and the hypotheses. The interviewers were instructed to adopt a neutral style (neither overfriendly nor accusatory). The interviews started with the interviewer introducing himself or herself and informing the suspect about the crime of which s/he was suspected. As a general rule, for each interview protocol, the interviewer posed follow-up questions to determine whether the suspect had anything to add (e.g. 'Is there anything more you can tell me about what you did after you left the café?'). The interviews were closed by the interviewer thanking the suspect for his or her cooperation.

## Study I

In Study I, the SUE-Confrontation interview was compared to two control interviews. The control interviews were chosen based on their practical relevance. The first control interview was the Early Disclosure of Evidence interview, often used in (US) police interviews. In these interviews, the interviewer typically reveals the evidence at the outset of the interview (e.g. Leo, 1996). The second control interview was the No Disclosure of Evidence interview. In brief, interviewers do not utilise the available evidence in every interview. For example, in their analysis of interview transcripts, Sellers and Kebbell (2011) found that in four out of 55 interviews, the interviewers did not disclose the evidence. No Disclosure interviews may be rare in real-life, but the fact that they do occur at all necessitated the inclusion of such an interview condition. The hypotheses tested in each of the studies are listed in Table 2.

Table 2. The hypotheses and the results broken down by study and dependent variable

Study	Dependent Variable	Hypothesis	Result
I	Suspects' perceptions of the evidence	<i>Hypothesis 1:</i> The guilty suspects in the SUE-Confrontation condition (vs. control conditions) would overestimate the amount of evidence the interviewer held about the critical phase prior to being asked about this phase.	Not supported
	Admissions	<i>Hypothesis 2:</i> The innocent suspects (vs. guilty suspects) would disclose more admissions about the critical phase.	Supported
		<i>Hypothesis 3:</i> The difference between the guilty and innocent suspects with respect to their forthcomingness would be smallest for the SUE-Confrontation condition.	Not supported
		<i>Hypothesis 4:</i> The guilty suspects in the SUE-Confrontation condition (vs. the guilty suspects in the control conditions) would reveal more admissions about the critical phase.	Not supported
II	Statement-evidence inconsistency	<i>Hypothesis 1a:</i> The SUE-Confrontation interview (vs. the Early Disclosure) would generate more inconsistencies.	Supported
		<i>Hypothesis 1b:</i> The suspects in the SUE-Confrontation condition (vs. the suspects in the Early Disclosure condition) would be more inconsistent with the evidence in Phase 1; however, there would be no such difference between the conditions in Phase 2.	Partially supported
	Suspects' perceptions of the evidence	<i>Hypothesis 2:</i> The 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.	Supported
	Admissions	<i>Hypothesis 3:</i> The suspects in the SUE-Confrontation condition (vs. the two control conditions) would provide more admissions about the critical phase.	Supported
III	Statement-evidence inconsistency	<i>Hypothesis 1:</i> The two SUE interviews (vs. the Early Disclosure interview) would yield more statement-evidence inconsistencies in Phases 1 and 2.	Supported
	Suspects' perceptions of the evidence	<i>Hypothesis 2:</i> The suspects interviewed with the two SUE interviews (vs. the Early Disclosure interview) would perceive the interviewer to have had more information about the critical phase prior to being asked about this phase.	Supported
		<i>Hypothesis 3:</i> For the two SUE conditions, a positive correlation was predicted between the suspects' perception of the evidence and their level of admissions, whereas no such correlation was predicted for the Early Disclosure condition.	Supported
	Admissions	<i>Hypothesis 4a:</i> The SUE-Confrontation/Explain condition (vs. the SUE-Confrontation condition) would result in more admissions about the critical phase.	Not supported
		<i>Hypothesis 4b:</i> The Early Disclosure condition (vs. the two SUE conditions) would result in fewer admissions.	Partially supported
Suspects' forthcomingness	<i>Hypothesis 5:</i> The suspects in the two SUE conditions would sooner (after Phase 1) or later (after Phase 2) switch from a withholding to a more forthcoming counter-interrogation strategy. Conversely, the suspects in the Early Disclosure condition were expected to be forthcoming for Phase 1 and Phase 2, and withholding for Phase 3.	Partially supported	

## Method

A total of 120 adults (85 women and 35 men) were recruited through advertisements at several locations in Gothenburg, Sweden. The participants' age ranged from 20 to 69 ( $M_{\text{years}} = 28.48$ ,  $SD = 9.35$ ). Upon arriving at the laboratory, they were randomly assigned to one of six conditions ( $n = 20$  in each condition). Half of the participants were instructed to commit a mock crime (guilty condition), whereas the other half were instructed to perform similar but noncriminal activities (innocent condition). Three interview conditions were used: SUE-Confrontation; Early Disclosure of Evidence; and No Disclosure of Evidence. The dependent variables were as follows: (a) the suspects' perceptions of the evidence regarding the critical phase; and (b) the admissions disclosed with respect to the critical phase.

*The mock crime.* Half of the participants were asked to imagine themselves as an animal rights activist, and that they were to undertake a mission to help gain illegal access to a company's computer network to prevent harmful animal testing (guilty). The remaining participants were told that the study examined emotional engagement in daily activities, and that they were to send a postcard to someone dear to them (innocent).

*Phase 1.* Participants went to the psychology department's café either to meet an accomplice who would provide them with a code to infect the computer network later on (guilty); or to write a postcard (innocent). The guilty participants (a) ordered a beverage, and (b) sat down to wait for a man (the accomplice) to approach them with the code. Approximately five minutes later, (c) the accomplice passed them the sheet of paper with the code on it. (d) After a brief dialogue (in which the accomplice asked if the participants knew what to do next), the participants left the café. The innocent participants (a) ordered a beverage, and (b) sat down to write their postcards. Approximately five minutes later, (c) a man passed them a business card that promoted language translation services. (d) After a brief dialogue (in which the man explained to the participants what was written on the card), they left the café.

*Phase 2.* Participants went from the café to the department's library to collect an envelope left for them (guilty) or to perform mundane activities (innocent). The guilty participants (a) checked out some brochures lying on a small book case in the middle of the library (so as not to appear suspicious), and (b) located a box full of books in which the envelope was hidden. The envelope had an address and a stamp on. They (c) took the envelope and placed the code inside. The innocent participants also (a) checked out the brochures, and (b) the box to see if any book was of interest to them.

*Phase 3.* Participants left the department for the closest post-box to send the letter (the envelope with the code) to an accomplice (guilty) or to send the postcard (innocent). Next, all participants visited a convenience store located next to the post-box, and bought a pack of chewing gum. This was intended to be a cover story for the guilty participants for leaving the department. Once the tasks were complete, the participants returned to the department's laboratory.

*The evidence.* The two less critical phases (Phases 1 and 3) generated identical pieces of evidence for the guilty and innocent suspects. The actions generated six pieces of information, three pieces for each phase. The evidence for Phase 1 included eyewitness statements indicating that the suspect had: (a) been to the café; (b) talked to a man in the café; and (c) received something from the man. The evidence for Phase 3 included eyewitness statements indicating that the suspect had: (a) been outside the department; (b) posted a letter; and (c) visited the convenience store located next to the post-box. One of the three pieces of evidence in Phases 1 and 3 regarding the suspect's whereabouts was used to initiate the questioning about this phase (e.g. 'We have information indicating that you visited the department's café, please explain what you did there'). Put differently, this one piece of information was downplayed and used to limit the suspect's responses to the particular phase that the interviewer wanted to ask about. Importantly, the interviewer did not possess any information pertaining to Phase 2 (i.e. the critical phase).

*The interviews.*

*SUE-Confrontation interview.* The interviewer followed the same three steps for Phases 1 and 3: (1) an open-ended question about the suspect's activities (e.g. 'We have information indicating that you visited the department's café, please explain what you did there'); (2) two specific questions about the suspect's activities implied by the evidence (e.g. 'Did someone talk to you in the café, in addition to the employees?'); and (3) disclosure of the evidence followed by a confrontation/confirmation. The disclosure of the evidence was dependent upon the suspect's responses to the specific questions. If the suspect responded with a denial (e.g. 'No one talked to me in the café'), the interviewer confronted him or her with the evidence (e.g. 'You said that no one talked to you while you were sitting in the cafe, but we have information from a very reliable witness who says that you were actually talking to someone'). If the suspect responded with a confirmation (e.g. 'Yes, I talked to someone'), the interviewer confirmed that what s/he had said fitted the evidence (e.g. 'You said that someone was talking to you while you were sitting in the cafe, which fits well with the eyewitness testimony we have'). Lastly, the interviewer posed an open-ended question regarding the critical phase ('Think back to what you did after you were in the café, but before you left the department. I want you – in as much detail as possible – to tell me about what you did during that time period').

*Early Disclosure interview.* This interview differed from the SUE-Confrontation interview with respect to the timing of the evidence disclosure. The interviewer followed the same two steps for Phases 1 and 3: (1) disclosure of evidence during which the two pieces of evidence were revealed; and (2) an open-ended question about the suspect's activities. The questioning procedure for Phase 2 was identical to that used for the SUE-Confrontation interview.

*No Disclosure interview.* The interviewer did not reveal the evidence, instead posed an open-ended question about the suspect's activities in Phases 1 and 3 (e.g. 'We have information indicating that you visited the department's café, please explain what you did there'). The questioning procedure for the critical phase was identical to those used for the SUE-Confrontation and the Early Disclosure interviews.

*Codings.* In the post-interview questionnaire, the participants rated how much information they believed the interviewer to have held about their activities in the critical phase before receiving questions about this phase (on a 7-point scale; 1 = *the interviewer had very little information*, and 7 = *the interviewer had a lot of information*). The admission score was calculated by adding up the number of pre-determined critical details in the suspects' statements for the critical phase (range 0-3). The suspects received 1 point each for mentioning the following pieces of information: (1) being in the library; (2) checking brochures in the library; and (3) poking around in a box full of books in the library. A random 30% of the transcripts were independently rated by two coders with respect to admissions. Intra-class correlation (ICC) was calculated, showing excellent agreement of .98, 95% CI [.97, .99]. The one disagreement was settled in a discussion between the coders. One of the coders coded the remaining transcripts.

## Results

*Suspects' perceptions of the evidence.* A one-way ANOVA was conducted to compare the effect of interview style on the guilty suspects' perceptions of the evidence. The planned comparisons showed that the guilty suspects in the SUE-Confrontation condition did not perceive the interviewer to have had more information about the critical phase compared to the suspects in the Early Disclosure and No Disclosure conditions combined,  $t(56) = 1.30, p = .20, r = .17, 95\% \text{ CI } [-.09, .41]$ . Hypothesis 1 was not supported. There was no difference between the two control conditions,  $t(56) = -1.08, p = .28, r = .14, 95\% \text{ CI } [-.12, .38]$ . See Table 3 for descriptive statistics.

*Admissions.* A 2 x 3 two-way ANOVA was conducted, with veracity (innocent vs. guilty) and interview (SUE-Confrontation vs. Early Disclosure vs. No Disclosure) as between-subject factors and admission score as the dependent variable. There was a main effect of veracity on the number of admissions suspects disclosed,  $F(1,114) = 19.96, p < .001, r = .37, 95\% \text{ CI } [.20, .51]$ . The innocent suspects were more forthcoming ( $M = 2.97, SD = 0.26$ ) than the guilty suspects ( $M = 2.35, SD = 1.02$ ), supporting Hypothesis 2. The main effect of interview style ( $F(2,114) = .28, p = .76, r = .10, 95\% \text{ CI } [-.08, .27]$ ), and the interaction effect ( $F(2,114) = .10, p = .90, r = .12, 95\% \text{ CI } [-.06, .29]$ ) were not significant. Hence, Hypothesis 3 was not supported. Furthermore, a one-way ANOVA was conducted to compare the effect of interview style on the guilty suspects' admission scores. Planned contrasts revealed that the guilty suspects in the SUE-Confrontation condition did not disclose more admissions about the critical phase compared to the suspects in the Early Disclosure and No Disclosure conditions combined,  $t(57) = 0.53, p = .60, r = .07, 95\% \text{ CI } [-.02, .46]$ . Hence, Hypothesis 4 received no support. There was no difference between the two control conditions,  $t(57) = 0, p = 1, r = .13, 95\% \text{ CI } [-.06, .43]$ . The results of Study I are summarised in words in Table 2.

Table 3. Descriptive statistics for dependent variables broken down by interview condition (Study I)

Dependent variable	Innocent Suspects			Guilty Suspects		
	SUE-Confrontation M (SD)	Early Disclosure M (SD)	No Disclosure M (SD)	SUE-Confrontation M (SD)	Early Disclosure M (SD)	No Disclosure M (SD)
Perceptions of the evidence	5.20 (1.85)	5.30 (1.53)	4.90 (1.48)	5.55 (1.57)	5.25 (1.55)	4.68 (1.77)
Admissions	3.00 (0.00)	3.00 (0.00)	2.90 (0.45)	2.45 (1.05)	2.30 (0.98)	2.30 (1.08)

## Discussion

No differences were found across the interview conditions with respect to the guilty suspects' perceptions of the evidence and their level of forthcomingness regarding the critical phase. However, the guilty suspects' mean ratings of how much information they perceived the interviewer to have held about the critical phase (the lowest mean: 4.68 of 7), as well as their mean admission scores (lowest mean: 2.30 of 3), were rather high across all three conditions. These findings suggest that the mechanism through which the SUE-Confrontation interview aimed to elicit admissions might have been at play also for the control conditions. In other words, as predicted for the SUE-Confrontation condition, the interviewer may have influenced the guilty suspects' perceptions of the evidence, and consequently their counter-interrogation strategies in the control conditions. For the Early Disclosure interview, the interviewer first confronted the suspects with the evidence that pertained to one of the less critical phases. After obtaining the suspects' free narratives for this phase, the interviewer confronted them with more evidence, this time for the other less critical phase. At this point, the suspects were faced with the fact that the interviewer actually had more evidence than they initially thought. This might have resulted in an overestimation of the amount of evidence that the interviewer held about the critical phase. Furthermore, for the No Disclosure interview, the information used to initiate the line of questioning regarding the less critical phases might have been perceived as evidence confrontation by the guilty suspects. These repeated evidence confrontations (as in the Early Disclosure condition) might have led to an overestimation of the amount of information that the interviewer held about the critical phase. In brief, the particular structure of the control protocols may be the main reason why the guilty suspects in these conditions overestimated the evidence, and why they as a consequence became more forthcoming and disclosed admissions to the same (high) extent as the guilty suspects in the SUE-Confrontation condition. In conclusion, even though the hypotheses were not supported, the results indicate that strategic interviewing may very well be a promising tool for eliciting admissions.

## Study II

Study II aimed to advance Study I on several accounts. First, the interview protocols were refined (see below). Second, a new dependent measure was included: the suspects' statement-evidence inconsistencies. Third, the shifts in the suspects' counter-interrogation strategies were examined. In addition, the scope of the study was limited to guilty suspects based on the findings of Study I. That is, Study I showed that the innocent suspects were more forthcoming than the guilty suspects and that they disclosed all the information they held regardless of how the evidence was played in the interview.

As for Study I, the SUE-Confrontation interview was compared to two control interviews: the Early Disclosure of Evidence, and the No Disclosure of Evidence interviews. A number of changes was made to these protocols for Study II. For the SUE-Confrontation interview, the specific questions posed about the two phases for which the interviewer had evidence were excluded (the open-ended questions and the evidence disclosures remained the same). The rationale behind this change is that a guilty suspect who is wary of the interviewer's strategy may learn that the interviewer poses specific questions about a phase only if s/he possesses evidence pertaining to that phase. The suspect may then try to counteract this strategy during the subsequent phases of the interview by not revealing information unless the interviewer poses specific questions. In other words, if the interviewer poses specific questions for the less critical phases and not for the critical phase, the suspect may withhold information regarding the critical phase due to his or her belief that the interviewer lacks information about this particular phase. Furthermore, the findings of Study I showed that the evidence disclosures in the control interviews might have affected the suspects' perceptions of the evidence. Based on this, some changes were made to the control interviews. For the Early Disclosure interview, the interviewer disclosed the evidence in a lump at the start of the interview, rather than drip-feeding it at the onset of each phase (as was done in Study I). Furthermore, for the No Disclosure interview, the interviewer posed questions only about the critical phase, disregarding the other two phases. The guilty suspects in the control conditions were expected to provide very little incriminating information about the critical phase. The hypotheses tested in Study II are listed in Table 2.

### Method

In total, 90 participants (59 women and 31 men) were recruited through advertisements at several locations in Gothenburg, Sweden. Their age varied between 19 and 69 years ( $M = 21.51$ ,  $SD = 7.65$ ), and they were randomly allocated to one of the three interview conditions ( $n = 30$  in each condition): SUE-Confrontation; Early Disclosure of Evidence; and No Disclosure of Evidence. The dependent variables were: (a) the suspects' statement-evidence inconsistencies; (b) the suspects' perceptions of the evidence regarding the critical phase; and (c) the admissions disclosed with respect to the critical phase. The interviewer held evidence pertaining to Phase 1 and Phase 2 of the mock crime, but lacked information about Phase 3 (the critical phase).

*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.

*Phase 1.* Participants received a key from a female accomplice (one of the experimenters) for entering an office later on. (a) They left the department for a short while through the back door. (b) They waited outside for the accomplice and (c) received an electronic key. (d) 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.* Participants copied a file from a laptop. (a) They went to the top floor (the fifth floor) of the department. (b) They entered an office using the key received in Phase 1. (c) 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. (d) They logged into their private e-mail accounts and (e) sent this file to another accomplice.

*Phase 3.* In the final phase, participants collected several documents containing important information about the sabotage. (a) They went down to the second floor of the department. (b) They went to a bulletin board, where they located and memorised a distinctive sign on a green sheet of paper which was posted by the activist group. (c) Then, they entered the library where (d) they took an envelope from a cupboard. (e) After leaving the library, they walked through a corridor with small lecture rooms leading off from it. (f) They went into one of those lecture rooms, which had the same green sign on its door as that on the bulletin board. From this room, they collected a box of documents. (g) They went down two floors to the basement to complete the last part of their mission. (h) 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 laboratory.

*The evidence.* The two less critical phases (Phase 1 and Phase 2) generated three pieces of evidence each. The evidence for Phase 1 included: (a) video camera surveillance footage from the back entrance showing the suspect leaving the building through the backdoor and entering through the same door after a short while; and an eyewitness statement indicating that the suspect had (b) talked to a woman outside, and (c) received an object from that woman. The evidence for Phase 2 included: (a) an eyewitness statement indicating that the suspect had been on the top floor; and (b) a report from the computer technician showing that the suspect had logged into his or her e-mail account, which (c) also indicated that the suspect had entered a room on that floor. The interviewer did not possess any evidence about Phase 3 (i.e. the critical phase).

*The interviews.*

*SUE-Confrontation interview.* The structure of the interview for Phases 1 and 2 was identical: (1) a specific question about the suspect's 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 followed by a confrontation/confirmation. The interviewer confronted the suspect with each piece of



evidence s/he omitted or contradicted, and emphasised 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'). For those instances in which the suspect's statements fitted the evidence, the interviewer explicitly confirmed this (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 that we have'). Lastly, the interviewer posed an open-ended question about the critical phase ('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 his or her activities there (e.g. 'You mentioned being in the basement. Can you tell me in detail what you did there?').

*Early Disclosure interview.* This interview differed from the SUE-Confrontation interview with respect to the timing of the evidence disclosure. First, the interviewer disclosed all six pieces of evidence, and thereafter posed open-ended questions to obtain a free narrative about the suspect's activities in Phase 1 and then in Phase 2. The questioning procedure for the critical phase was identical to that used for the SUE-Confrontation interview.

*No Disclosure interview.* The interviewer did not reveal any of the six pieces of evidence and only posed an open-ended question about the critical phase. The interviewer initiated the questioning for this phase by using the information about the suspect's whereabouts in Phase 2 ('We have information that you were on the top floor of the department. Now, I want you to think back to what you did after you left the top floor, but before you were brought to the interview. Tell me what you did after you left the top floor in as much detail as possible'). The rest of this protocol was identical to the procedure used for the critical phase in the SUE-Confrontation and the Early Disclosure interviews.

*Codings.* The suspects' statement-evidence inconsistencies were analysed by adding the number of contradictions and omissions in the free narratives for Phases 1 and 2 (range 0-3, for each phase). The suspects' perceptions of the evidence were obtained in the post-interview questionnaire by asking the suspects to rate how much information they believed the interviewer to have held about their activities in the critical phase prior to being asked about this phase (on a 7-point scale; 1 = *the interviewer knew nothing*, and 7 = *the interviewer knew everything*). The admission score was calculated by adding the number of pre-determined critical details in the suspects' statements for the critical phase. The critical admissions pertained to: (a) the second floor; (b) the bulletin board; (c) the library; (d) the cupboard in the library; (e) the second floor corridor; (f) the small lecture room on the second floor corridor; (g) the basement; and (h) the sofa in the basement. Each admission was valued as 1, hence, the total admission score for a suspect ranged between 0 and 8. A random 30% of the transcripts were independently rated by two coders with respect to the number of statement-evidence inconsistencies and admissions. ICCs were calculated, showing excellent agreement of .98, 95% CI [0.97, 0.99] for the number of statement-evidence inconsistencies and .99, 95% CI [0.995, 0.999] for the admission scores. The disagreements were settled in a discussion between the coders. One

of the coders coded the remaining transcripts. Finally, to trace the shifts in counter-interrogation strategies, the suspects' strategies were categorised as withholding or forthcoming for each phase of the interview. That is, the suspects with at least one statement-evidence inconsistency were regarded as withholding for Phase 1. The suspects were considered as withholding if the number of their inconsistencies for Phase 2 was greater than or equal to the number of inconsistencies they produced for Phase 1. Finally, in Phase 3, the suspects were categorised as withholding if they arrived at an admission score less than or equal to 4 (i.e. if they scored below the midpoint of the admission score scale).

## Results

*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 (SUE-Confrontation vs. Early Disclosure interviews) as the between-subjects factor was conducted. In support of Hypothesis 1a, there was a significant main effect of interview condition,  $F(1, 58) = 49.74, p < .001, r = .68, 95\% \text{ CI } [.52, .79]$ , and the suspects in the SUE-Confrontation condition were more inconsistent with the evidence compared to the suspects in the Early Disclosure condition. The main effect of inconsistency scores (across Phases 1 and 2) was not significant,  $F(1, 58) = 0.10, p = .75, r = .04, 95\% \text{ CI } [-.22, .29]$ . Importantly, the interaction effect was significant,  $F(1, 58) = 6.57, p = .013, r = .32, 95\% \text{ CI } [.07, .53]$ . Simple effects tests at each level of phase showed that the suspects in the SUE-Confrontation condition produced more inconsistencies than the Early Disclosure condition for Phase 1,  $F(1, 58) = 61.55, p < .001, r = .72, 95\% \text{ CI } [.56, .82]$ , and that this difference decreased for Phase 2, but was still significant,  $F(1, 58) = 23.22, p < .001, r = .53, 95\% \text{ CI } [.32, .69]$  (see Figure 3). Hence, Hypothesis 1b was partially supported. See Table 4 for descriptive statistics. Of special interest was the change that occurred across the phases within the SUE-Confrontation condition. A paired samples  $t$ -test revealed that the suspects were significantly more inconsistent in Phase 1 than in Phase 2,  $t(29) = 2.19, p = .037, r = .38, 95\% \text{ CI } [.25, .77]$ .

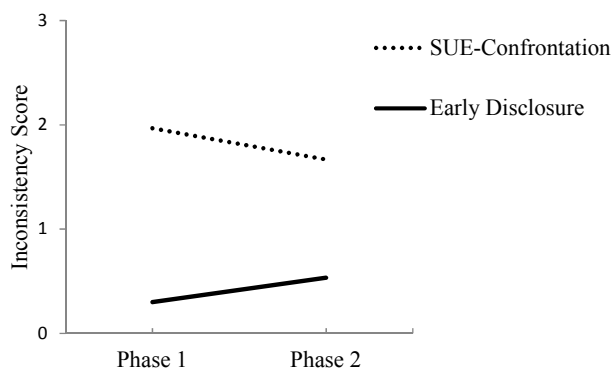


Figure 3. Mean inconsistency scores for Phase 1 and Phase 2 broken down by interview condition (Study II).

Table 4. Descriptive statistics for dependent variables broken down by condition (Study II)

Interview condition	Phase 1	Phase 2	Perceptions of the evidence M (SD)	Admission Score M (SD)
	Incon. Score	Incon. Score		
	M (SD)	M (SD)		
SUE-Confrontation	1.97 (.89)	1.67 (.88)	4.50 (1.83)	3.63 (2.33)
Early Disclosure	.30 (.75)	.53 (.94)	3.87 (1.48)	2.63 (1.99)
No Disclosure	–	–	3.37 (1.54)	2.03 (2.14)

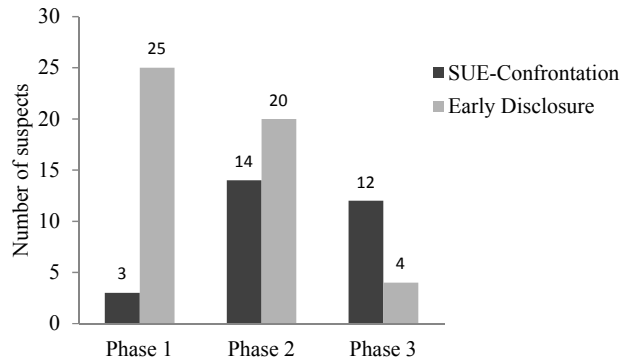
Note. Incon. = Inconsistency

*Suspects' perceptions of the evidence.* A one-way ANOVA showed that the suspects' perceptions of the evidence differed across interview conditions,  $F(2, 87) = 3.66$ ,  $p = .03$ ,  $r = .28$ , 95% CI [.08, .46]. Planned contrasts revealed that the suspects in the SUE-Confrontation condition perceived the interviewer to have held more information about the critical phase than did the suspects in the Early Disclosure and the No Disclosure conditions,  $t(87) = 2.43$ ,  $p = .017$ ,  $r = .25$ , 95% CI [.04, .43]. Hypothesis 2 received support. No difference was found between the control conditions,  $t(58) = 1.47$ ,  $p = .146$ ,  $r = .19$ , 95% CI [-.07, .42].

*Admissions.* 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 with the Early Disclosure and the No Disclosure conditions combined,  $t(87) = 2.69$ ,  $p = .008$ ,  $r = .28$ , 95% CI [.08, .46]. Thus, Hypothesis 3 was supported. There was no difference between the two control conditions,  $t(58) = 1.79$ ,  $p = .079$ ,  $r = .23$ , 95% CI [-.03, .46]. The results of Study II are summarised in words in Table 2.

Finally, the exploratory analyses showed that 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% ( $n = 10$ ) of the suspects used a withholding strategy from the beginning to the end of the interview. This 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, after either Phase 1 ( $n = 6$ ) or Phase 2 ( $n = 16$ ). For the critical phase, at a group level, the suspects in the SUE-Confrontation condition demonstrated a bimodal trend with respect to the admissions disclosed. That is, almost half of the suspects in this condition were forthcoming ( $n = 12$ ), whereas the remainder were withholding. However, only a minority

of the suspects in the Early Condition ( $n = 4$ ) were forthcoming in Phase 3. Figure 4 illustrates the changes in the suspects' strategies throughout the phases in both conditions.



*Figure 4.* Numbers of forthcoming suspects for each phase of the SUE-Confrontation and Early Disclosure interviews (Study II).

## Discussion

The findings provide empirical support for the assumptions on which the SUE-Confrontation tactic rests. By interviewing strategically, the interviewer first elicited cues to deceit (statement-evidence inconsistencies). In the next instance, the interviewer used these cues to affect the suspects' perceptions of the amount of information the interviewer held about the critical phase. The suspects' inflated perceptions resulted in that they changed their strategies from withholding to forthcoming. In turn, the interviewer elicited admissions with respect to the critical phase. This outcome is explained by the suspects realising that their initial withholding strategies were not facilitating their goal of being believed. In other words, being inconsistent with the evidence undermined their credibility. To restore their credibility, they adopted a more forthcoming strategy when asked about a phase about which they believed the interviewer to already hold information (a belief which was, in fact, incorrect). As a result, the suspects disclosed admissions about the critical phase. The situation for the suspects in the control conditions was very different. They did not need to base their strategies on what they believed the interviewer might have known. They either already knew about the incriminating evidence against them (Early Disclosure) or the evidence was not even a parameter in their interviews (No Disclosure). As a result, these suspects adopted withholding strategies for the critical phase.

It is important to note that the means for the admission scores in the Early Disclosure condition and the SUE-Confrontation condition were similar. The bimodal pattern in the SUE-Confrontation condition accounts for this finding. Speculatively, this may also be due to 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 about the possibility of more surveillance footage and therefore attempted to be consistent with the possible evidence regarding their whereabouts in the building.

It is also worth mentioning that almost half of the suspects in the SUE-Confrontation condition maintained their initial withholding strategy from the beginning until the end. There are two possible explanations for this finding. First, these suspects may have thought that concealing critical information was a more effective way to appear innocent. Second, they may have believed that the interviewer was already convinced of their guilt based on their inconsistencies. As a result, they may have thought that any attempt to regain their credibility in the critical phase was futile.

### Study III

In Study III, the ecological validity of the SUE-Confrontation tactic was increased by asking the suspects to explain their statement-evidence inconsistencies, in contrast to Study I and Study II where the suspects were not given the opportunity to account for the discrepancies in their statements. This new interview condition was labelled the SUE-Confrontation/Explain. This advancement was motivated by the fact that in real-life situations, an interviewer is likely to challenge a suspect's inconsistencies (e.g. Walsh & Bull, 2015). Moreover, Study III aimed to advance Study II by looking more closely at the shifts in suspects' strategies throughout the interview. For this purpose, the following two measures were used: (a) an objective measure for which a 'forthcomingness' score (the extent to which the suspects shared information) was calculated for each phase of the interview, thereby allowing comparisons between phases; and (b) a subjective measure for which, following the interview, the suspects reported their initial and altered counter-interrogation strategies (they were asked about their altered strategies only if they reported having changed their initial strategies). As in Study II, the scope was limited to guilty suspects. The hypotheses tested in Study III are listed in Table 2.

#### Method

Students and staff members ( $N = 75$ , 40 female and 35 male; 50 students and 25 staff members) from various departments at the University of Portsmouth (UK) were recruited through advertisements at several locations at the university premises. Their age ranged from 18 to 62 years ( $M = 27.51$ ,  $SD = 10.75$ ) and they were randomly allocated to one of three interview conditions ( $n = 25$  in each condition): SUE-Confrontation/Explain; SUE-Confrontation; and a control condition, Early Disclosure of Evidence. The dependent variables were as follows: (a) the suspects' statement-evidence inconsistencies; (b) the suspects' perceptions of the evidence regarding the critical phase; (c) the admissions disclosed with respect to the critical phase; and (d) the suspects' forthcomingness. For the mock crime, the interviewer held evidence pertaining to Phases 1 and 2, but lacked information about Phase 3 (the critical phase).

*The mock crime.* Participants were told that university officials were testing the security measures on the university premises to see whether they could detect criminal activities. They were instructed to imagine themselves as a dedicated member of a criminal group and tasked to undertake a secret mission as part of a larger operation, which was to prepare an attack on the university premises.

*Phase 1.* Participants received a key from an accomplice (one of the experimenters) for entering an office later on. They (a) left the department building (King Henry Building) for a short while, (b) waited for the accomplice outside behind the building by a signpost, (c) received a key, and (d) after a brief dialogue (in which the accomplice asked if the participant knew what to do next), went back into the building.

*Phase 2.* In the second phase, participants e-mailed a file from a laptop. They (a) went to the third floor of King Henry Building, (b) entered an office with the key received in Phase 1, and (c) found a laptop with a file named 'The Codes' on the desktop. This file contained scripts that were to be used in the attack. They then (d) logged into their private e-mail accounts, and (e) e-mailed this file to another accomplice.

*Phase 3.* In the final phase, participants collected several documents containing important information about the attack. They (a) left King Henry Building and went to another university building nearby, Park Building; (b) took the lift, (c) went to the fourth floor (top floor) of the building, (d) located a cupboard behind which there was an envelope left for them, (e) went one floor down to the third floor, (f) collected a box of documents from the shelves situated in the corridor, (g) went all the way down to the basement to complete the last part of their mission, and (h) placed the envelope inside the box, and placed this package in the empty space behind the lift for an accomplice to pick up later. Once the mission was complete they returned to the laboratory in King Henry Building.

*The evidence.* The two less critical phases (Phase 1 and Phase 2) generated three pieces of evidence each. The evidence for Phase 1 included an eyewitness statement indicating that the suspect had: (a) been outside behind King Henry Building; (b) talked to a man/woman outside (depending on the accomplice's gender); and (c) received an object from that man/woman. The evidence for Phase 2 included: (a) an eyewitness statement indicating that the suspect had been on the third floor of King Henry Building; and (b) a report from the computer technician showing that the suspect had logged into his or her e-mail account, which (c) also indicated that the suspect had entered a room on that same floor. The interviewer possessed information that a package was found behind the lift in the basement of Park Building, and that the package contained important information about an attack on the university premises. Moreover, the interviewer had access to the evidence pertaining to Phases 1 and 2, but did not possess any evidence about Phase 3 (i.e. the critical phase).

### *The interviews.*

*SUE-Confrontation/Explain interview.* The structure of the interview for Phases 1 and 2 was identical and consisted of five steps for each phase: (1) a specific question about the suspect's whereabouts (e.g. 'Have you been outside behind King Henry Building today?'); (2) an invitation for a free narrative (only if the suspect replied 'yes' to the previous question; e.g. 'Can you tell me what you did there?'); (3) disclosure of the evidence followed by a confrontation/confirmation; (4) asking for an explanation for each statement-evidence inconsistency; and (5) feedback on the suspect's explanation(s). The interviewer confronted the suspect with each piece of evidence that s/he (the suspect) omitted or contradicted and emphasised the seriousness of withholding information. When the suspect's statements matched the evidence, the interviewer confirmed this (step 3). After the confrontation, the interviewer required an explanation for every statement-evidence inconsistency within the suspect's statement (step 4; e.g. 'How do you explain the inconsistency between your statement and the evidence showing that you did talk to a man behind King Henry Building?'). When the suspect provided an explanation that matched the evidence (e.g. 'Sorry, I forgot to mention that I talked to a man outside'), the interviewer confirmed that his or her statement matched the evidence (step 5; 'OK, what you say now fits with the evidence that we have'). If the statement was still inconsistent with the evidence (e.g. 'You are wrong, I did not talk to a man outside'), the interviewer emphasised the seriousness of the continuing inconsistency (step 5; 'What you say is still inconsistent with the evidence; this is not good for your credibility'). Next, the interviewer gave a five-minute break to provide the suspect time to reflect upon the first two phases of the interview and the counter-interrogation strategies that s/he had adopted. Following the break, the interviewer returned to the room to pose an open-ended question about the critical phase ('Can you tell me what you did after you left the top floor of King Henry Building and before you were brought in to the interview?'). If the suspect volunteered being at specific locations (Park Building, Park Building's fourth floor, third floor and/or basement), then the interviewer asked a general question about his or her activities there (e.g. 'You mentioned being in Park Building's basement. Can you tell me in detail what you did there?').

*SUE-Confrontation interview.* This interview differed from the SUE-Confrontation/Explain interview with respect to the handling of statement-evidence inconsistencies. That is, the interviewer did not require the suspect to explain their inconsistencies. Thus, Phases 1 and 2 of the SUE-Confrontation interview involved only steps 1, 2, and 3 of the SUE-Confrontation/Explain interview. The questioning procedure for the critical phase was identical to that used for the SUE-Confrontation/Explain interview (including the five-minute break).

*Early Disclosure interview.* This interview differed from the SUE interviews with respect to the timing of evidence disclosure. At the beginning of the interview, the interviewer disclosed all six pieces of evidence. The interviewer subsequently posed open-ended questions to obtain a free narrative about the suspect's activities in Phase 1 and then in Phase 2 (e.g. 'Tell me in detail what you did when you were behind King

Henry Building'). The questioning procedure for the critical phase was identical to those used for the SUE interviews (including the five-minute break).

*Codings.* The coding of statement-evidence inconsistencies (range 0-3, for Phases 1 and 2) and admissions (range 0-8, for Phase 3) were identical to the coding procedure for the same variables in Study II. The critical admissions pertained to: (a) being inside Park Building; (b) taking the lift; (c) being on the fourth floor; (d) mentioning the cupboard on the fourth floor; (e) being on the third floor; (f) mentioning the shelves on the third floor; (g) being in the basement; and (h) being in the empty space behind the lift in the basement. Each admission was valued 1 point. A random 30% of the interviews were independently rated by two coders with respect to the number of statement-evidence inconsistencies for Phases 1 and 2 and with respect to the admissions in Phase 3. ICCs showed excellent agreement across all phases with respect to inconsistencies, .88, 95% CI [.71, .95] for Phase 1, .96, 95% CI [.91, .99] for Phase 2; and with respect to the admission scores, .98, 95% CI [.96, .99]. The disagreements were settled in a discussion between the coders. One of the coders subsequently coded the remaining interviews.

The suspects' ratings of their perceptions of the evidence were obtained in the post-interview questionnaire, but in a different way than in Studies I and II. The participants were asked – for each of the eight critical details – whether they thought the interviewer possessed that piece of information prior to being asked about the critical phase. The perception of the evidence was calculated by counting the number of details that the suspects perceived the interviewer to possess (range 0-8).

The suspects' level of forthcomingness was assessed by calculating a ratio for each phase. In doing so, the ratio of the number of statement-evidence consistencies to the total number of pieces of evidence was calculated for both Phase 1 and Phase 2. For instance, if a suspect was consistent with one piece of evidence out of three, the forthcomingness score would be .33. Similarly, the ratio of the number of admissions in the suspects' statements to the total number of possible admissions was calculated for Phase 3. For instance, if a suspect admitted to four details out of eight, the forthcomingness score would be .50.

Finally, to trace the direction of the shifts in the suspects' counter-interrogation strategies, two coders independently coded a random 30% of the suspects' self-reported initial and new counter-interrogation strategies as either forthcoming or withholding. Strategies were categorised as forthcoming, for instance, when suspects reported having stayed close to the truth or admitted to details without revealing criminal intent. The category of withholding strategies consisted of suspects reporting to have denied everything or answered to a bare minimum. As some strategies reported by the suspects were not verbal (e.g. 'I stayed calm'), they were categorised as 'other'. Interrater agreement was 88.6% (Cohen's  $\kappa = .70$ ) for the suspects' self-reported strategies. One of the coders categorised the remaining material.



## Results

*Statement-evidence inconsistency.* A mixed-design ANOVA was conducted with interview condition (two SUE conditions combined vs. Early Disclosure) as the between-subjects factor and phase as the within-subjects factor. There was a main effect for interview condition,  $F(1, 73) = 54.30, p < .001, r = .65, 95\% \text{ CI } [.50, .76]$ . As predicted, the SUE conditions resulted in more statement-evidence inconsistencies ( $M = 1.71, SD = 0.11$ ) than did the Early Disclosure condition ( $M = 0.30, SD = 0.16$ ). There was no significant main effect of phase,  $F(1, 73) = 1.28, p = .26, r = .13, 95\% \text{ CI } [-.10, .35]$ . Importantly, there was a significant interaction effect between interview condition and phase,  $F(1, 73) = 4.72, p = .03, r = .25, 95\% \text{ CI } [.02, .45]$ . Simple effects tests at each phase (Phases 1 and 2) showed that the two SUE conditions combined ( $M = 1.90, SD = 0.84$ ) produced more statement-evidence inconsistencies than the Early Disclosure condition ( $M = 0.24, SD = 0.72$ ) both at Phase 1,  $F(1, 73) = 71.24, p < .001, r = .70, 95\% \text{ CI } [.56, .80]$  and at Phase 2,  $F(1, 73) = 22.05, p < .001, r = .48, 95\% \text{ CI } [.28, .64]$  (two SUE conditions combined,  $M = 1.52, SD = 1.01$ ; Early Disclosure condition,  $M = 0.36, SD = 0.99$ ). Hence, Hypothesis 1 was supported.

No difference was expected between the two SUE conditions with respect to statement-evidence inconsistencies. However, a mixed-design ANOVA with interview condition (SUE-Confrontation/Explain vs. SUE-Confrontation) as the between-subjects factor and phase as the within-subjects factor revealed a significant main effect of interview,  $F(1, 48) = 4.32, p = .04, r = .29, 95\% \text{ CI } [.01, .53]$ . Unexpectedly, the suspects in the SUE-Confrontation/Explain condition were more inconsistent overall with the evidence ( $M = 1.94, SD = 0.16$ ) than the suspects in the SUE-Confrontation condition ( $M = 1.48, SD = 0.16$ ). There was a main effect of phase demonstrating that Phase 1 resulted in more statement-evidence inconsistencies than Phase 2,  $F(1, 48) = 8.40, p = .006, r = .39, 95\% \text{ CI } [.13, .60]$ . No interaction effect was found,  $F(1, 48) = .58, p = .45, r = .11, 95\% \text{ CI } [-.17, .38]$ . Of special interest was the change that occurred across the phases within each SUE condition. Thus, multivariate simple effects tests were conducted for each SUE condition, comparing the changes in inconsistency scores from Phase 1 to Phase 2. Suspects in the SUE-Confrontation condition were more inconsistent with the evidence in Phase 1 than in Phase 2,  $F(1, 48) = 6.70, p = .01, r = .35, 95\% \text{ CI } [.08, .57]$ . No such difference occurred for the SUE-Confrontation/Explain condition,  $F(1, 48) = 2.78, p = .14, r = .23, 95\% \text{ CI } [-.05, .48]$ . See Table 5 for the descriptive statistics.

*Suspects' perceptions of the evidence.* A one-way ANOVA with interview condition (SUE-Confrontation vs. SUE-Confrontation/Explain vs. Early Disclosure) as the factor revealed a significant effect for the suspects' perceptions of the evidence,  $F(2, 72) = 3.64, p = .03, r = .30, 95\% \text{ CI } [.08, .49]$ . Planned contrasts showed that the suspects in the SUE conditions ( $M = 4.62, SD = 2.64$ ) believed the interviewer to have had significantly more information about the critical phase than did the suspects in the Early Disclosure condition ( $M = 3.08, SD = 2.31$ ),  $t(72) = -2.48, p = .02, r = .28, 95\% \text{ CI } [.06, .48]$ . Moreover, no difference was found between the SUE conditions,  $t(72) = 1.06, p = .29, r = .12, 95\% \text{ CI } [-.11, .34]$ . Hence, Hypothesis 2 was supported. See Table 5 for descriptive statistics. The suspects' perceptions of how much information they thought the

interviewer had about the critical phase were positively and significantly correlated with the amount of critical information they revealed when asked about this phase in both the SUE-Confrontation/Explain condition ( $r = .48$ , 95% CI [.10, .74],  $p = .02$ ) and the SUE-Confrontation condition ( $r = .74$ , 95% CI [.49, .88],  $p < .001$ ), but not in the Early Disclosure condition ( $r = .24$ , 95% CI [-.17, .58],  $p = .24$ ). Hypothesis 3 was supported.

Table 5. Descriptive statistics for dependent variables broken down by interview condition and phase (Study III)

Interview condition	Phase 1	Phase 2	Perception	Admission	Phase 1	Phase 2	Phase 3
	<i>Incon.</i>	<i>Incon.</i>	<i>of evidence</i>	<i>score</i>	<i>Forth.</i>	<i>Forth.</i>	<i>Forth.</i>
	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>
	<i>(SD)</i>	<i>(SD)</i>	<i>(SD)</i>	<i>(SD)</i>	<i>(SD)</i>	<i>(SD)</i>	<i>(SD)</i>
SUE-Confrontation/Explain	2.08 (0.86)	1.80 (0.91)	4.24 (2.57)	3.68 (2.29)	0.31 (0.29)	0.40 (0.30)	0.44 (0.30)
SUE-Confrontation	1.72 (0.79)	1.24 (1.05)	5.00 (2.71)	4.64 (2.53)	0.43 (0.26)	0.59 (0.35)	0.57 (0.33)
Early Disclosure	0.24 (0.72)	0.36 (0.99)	3.08 (2.31)	2.28 (2.34)	0.92 (0.24)	0.88 (0.33)	0.28 (0.29)

Note. *Incon.* = inconsistency scores; *Forth.* = ‘forthcomingness’ scores.

*Admissions.* A one-way ANOVA with interview condition (SUE-Confrontation vs. SUE-Confrontation/Explain vs. Early Disclosure) as the factor revealed a significant effect for admissions,  $F(2, 72) = 6.18$ ,  $p = .003$ ,  $r = .38$ , 95% CI [.17, .56]. Post hoc comparisons using a Bonferroni test showed that the SUE-Confrontation/Explain condition did not differ from either the SUE-Confrontation condition ( $p = .48$ ) or the Early Disclosure condition ( $p = .13$ ). Importantly, the SUE-Confrontation interview elicited more admissions than the Early Disclosure interview ( $p = .002$ ). See Table 5 for the descriptive statistics. In summary, Hypothesis 4a received no support, whereas Hypothesis 4b received partial support. Further analyses were run to clarify these results. It was found that the SUE-Confrontation/Explain condition consisted of two groups of suspects: Suspects who provided an explanation to one or more of their inconsistencies in Phase 1 or Phase 2 (64% of the suspects); and suspects who did not explain any of their inconsistencies (28% of the suspects). Suspects who accounted for some or all inconsistencies admitted significantly more self-incriminating information about the critical phase ( $M = 4.38$ ,  $SD = 1.78$ ) than suspects who did not explain any of their inconsistencies ( $M = 1.43$ ,  $SD = 1.62$ ),  $t(21) = -3.74$ ,  $p = .001$ ,  $r = .75$ , 95% CI [.50, .89]. In addition, the group that chose to account for their inconsistencies explained about 60% of them in Phase 1. However, the suspects’ behaviours varied in Phase 2; some of them explained only 20% of their inconsistencies, while the rest explained 100% of their inconsistencies. Nevertheless, both subgroups had similar and fairly high admissions scores.

*Suspects' forthcomingness.* To examine the shifts in suspects' counter-interrogation strategies, separate polynomial trend analyses were run for each condition with respect to the suspects' forthcomingness for all three phases. There was no significant trend in the SUE-Confrontation/Explain condition,  $F(1, 23) = 3.31, p = .08, r = .35$ , 95% CI [-.05, .65]. There was an increasing linear trend across the phases for the SUE-Confrontation condition,  $F(1, 23) = 4.45, p = .046, r = .40$ , 95% CI [.006, .687]. That is, the suspects' forthcomingness gradually increased throughout the interview. A decreasing linear trend, ( $F(1, 23) = 93.89, p < .001, r = .90$ , 95% CI [.78, .96]), as well as a quadratic trend ( $F(1, 23) = 19.10, p < .001, r = .67$ , 95% CI [.37, .84]) emerged for the Early Disclosure condition. This indicated that the suspects had a similar level of forthcomingness in Phases 1 and 2, but their forthcomingness decreased rather dramatically in Phase 3 (see Figure 5). Hypothesis 5 was partially supported. In addition, 68% of the suspects in the SUE-Confrontation condition, 52% in the SUE-Confrontation/Explain condition, and 40% in the Early Disclosure condition reported to have changed their strategies during the interview. Overall, 94% of the suspects in the SUE-Confrontation condition and 90% in the SUE-Confrontation/Explain condition either remained forthcoming or changed their strategies from withholding to forthcoming. The corresponding percentage for the Early Disclosure condition was only 44.50%. The results of Study III are summarised in words in Table 2.

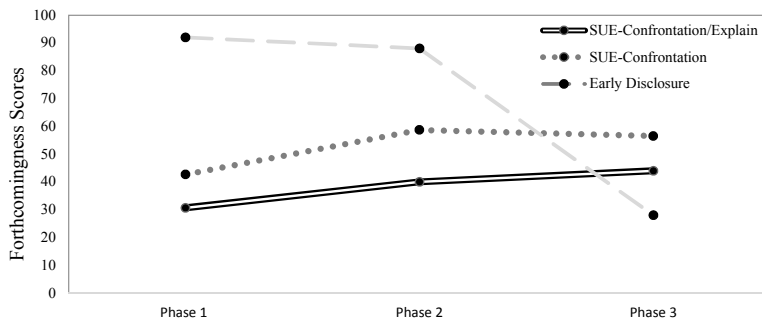


Figure 5. Suspects' forthcomingness for each condition broken down by phase (Study III).

## Discussion

The findings, once more, show that strategic interviewing is an efficient tool to elicit admissions. The suspects in the two SUE conditions were comparatively more inconsistent with the evidence. Moreover, their perceptions of the evidence (they overestimated the amount of evidence) affected their choice of strategy (they changed their strategies from withholding to forthcoming), which in turn affected their verbal responses (they admitted to comparatively more critical information). In addition, in the SUE conditions, the suspects' perceptions were positively correlated with their forthcomingness, showing that the suspects relied on their perceptions when deciding on

their strategies. However, there was no such correlation in the Early Disclosure interview showing that the suspects' perceptions of how much the interviewer might have known regarding the critical phase did not affect how much information they disclosed about this phase.

Contrary to expectation, the SUE-Confrontation/Explain interview did not result in more admissions than the SUE-Confrontation interview. A closer examination of the SUE-Confrontation/Explain condition revealed that a portion of the suspects were withholding throughout the interview. That is, these suspects were largely inconsistent with the evidence, refrained from providing explanations for these inconsistencies and were withholding also with respect to the critical phase. One possible explanation is that these suspects believed that being inconsistent with their initial story would not serve their goal of being believed; thus, they did not provide explanations for their inconsistencies. However, the interviewer then emphasised that the unaccounted inconsistencies hampered their credibility. This may have resulted in the suspects believing themselves to have failed to provide a credible impression. Thus, they gave up on trying to convince the interviewer of their innocence, and decided to maintain their initial withholding strategies.

It is important that future research improves the SUE-Confrontation/Explain tactic so as to motivate more guilty suspects to pursue their goal of appearing credible during the interview. This issue can be addressed by looking for alternative ways to obtain suspects' explanations as well as alternative ways to provide feedback about these explanations. Finally, the suspects in the SUE-Confrontation/Explain condition who were forthcoming in the critical phase varied as to how they strived to achieve the goal of being believed. They either tried to match their story to the evidence or maintained their within-statement consistency by sticking to their initial story. In summary, Study III provided more insights into how guilty suspects reason when faced with a strategic interview.

## Study IV

The aims of Study IV were to: (a) explore police officers' planned use of the available evidence to elicit admissions; and (b) examine the reasons behind their preferred evidence disclosure mode. The term 'reason' refers to the goal that an investigator strives to achieve by his or her way of disclosing the evidence to the suspect. To address these aims, investigators were given a fictitious murder case and were asked to plan for an interview with a suspect. The case was created to mimic the situations of relevance for this thesis. That is, situations in which the interviewer possesses evidence about several less critical phases of a crime, but lacks information about a more critical phase (in the fictitious case, the critical phase represented the time period during which the murder had taken place).

### Method

A survey was administered to investigators who conduct suspect interviews on a regular basis. The investigators were approached through contact persons at the police

academies and at various police departments. Of the 112 investigators who were approached, 74 agreed to participate in the study. Of these 74, five reported as not being involved in interviewing suspects (no information existed about their previous interviewing experience) and they were thus excluded. In the end, the responses from 69 investigators from various police departments in the Netherlands ( $n = 50$ ), Norway ( $n = 15$ ), and the UK ( $n = 4$ ) were analysed. The sample consisted of 36 males and 31 females, aged between 24 and 59 ( $M_{years} = 42.1$ ,  $SD = 9.3$ ; two investigators did not provide demographic information). Their experience as an investigator ranged from 1 to 28 years ( $M = 9.9$ ,  $SD = 6.8$ ). The average number of hours per week the investigators spent interviewing suspects was 6.1 ( $SD = 5.6$ ). Forty-four (66%) investigators reported having received special training in suspect interviewing. The investigators received either an online version or a pen and paper version of the survey; the survey took approximately 20 minutes to complete.

The fictitious murder case was created by drawing upon inspiration from a real murder case and with additional help from two experienced investigators (not participants in the study). The investigators were informed that a murder had taken place and that a suspect had been arrested. The suspect denied any involvement in the crime, but was willing to cooperate and to take part in an interview. The prosecutor's assessment was that the evidence collected thus far was insufficient, and that more information was required to prosecute the case. The suspect had no knowledge as to what information the police possessed, except that he was suspected of the murder in question. The task for the investigators was to plan an interview with the suspect based on the case details.

Importantly, the investigators received a specific objective: *'You are now asked to plan an interview with the suspect based on the case information. In this interview, your objective is to collect new information from the suspect. Specifically, we would like you to focus on eliciting new information to be able to infer whether there is any link (of any strength) between the suspect and the crime scene'*. In other words, the investigators' objective was to elicit admissions about the critical phase, for which information was lacking. After reading the case details, the investigators listed a maximum of 15 pieces of information they believed to be critical for the case. The aim of this was to provide the investigators with the opportunity to focus on what they believed to be important in the case. Next, they picked the three most important pieces of information from their list and answered the following two questions for each of these pieces: *'What question would you ask related to this piece of information?'* and *'What do you want to achieve with that question?'*. The rationale behind limiting the number of responses to three was to obtain a sufficient number of responses to infer the investigators' preferred evidence use while taking up as little of their time as possible.

#### *Codings.*

*Planned evidence use.* Three primary categories were used to assess the investigators' planned use of evidence: (a) strategic; (b) non-strategic; and (c) other. A piece of information was considered as having been used strategically if the investigator invited the suspect for a free recall and/or exhausted the suspect's alternative explanations to the evidence before revealing it (e.g. one investigator planned to strategically use the

eyewitness statement indicating that the suspect was drunk at the party by posing the following question: 'Can you tell me what you drank at the party?'). A piece of information was considered as having been used non-strategically if the investigator revealed it early in his or her line of questioning, that is, the investigator made the suspect aware of the evidence before posing questions about it (e.g. 'We have eyewitness evidence indicating that you were drunk at the party. Tell me what you had to drink'). Responses were placed into the 'other' category if the investigator's question did not clearly address a piece of information (e.g. 'What were you doing at the time of the crime?'). Two coders coded a random 20% of the responses based on these predetermined categories. The percentage of agreement was good, 81.9% (Cohen's  $\kappa = .69$ , 95% CI [.56, .83]). The disagreements were settled in a discussion between the coders, and one of the coders subsequently coded the remaining responses. Based on this coding, the investigators were categorised into three groups of investigators who planned to use: (1) each piece of evidence in a strategic manner; (2) each piece of evidence in a non-strategic manner; and (3) some pieces in a strategic manner, and some pieces in a non-strategic manner.

*Reasons behind planned evidence use.* All responses were reviewed and seven categories for the reasons behind the investigators' planned use of evidence were identified: (1) to obtain new information about the evidence already held; (2) to obtain new information about the critical phase of the crime; (3) to obtain new information about a theme unrelated to the crime; (4) to compare the suspect's statement with the evidence already held; (5) to 'encircle' (e.g. explore and rule out alternative explanations for the evidence); (6) to support a hypothesis; and (7) other (statements not captured by any of the categories above). See Table 6 for example statements for each of these categories. Two coders coded a random 20% of the responses based on the above list of categories. The percentage of agreement was 50.77% (Cohen's  $\kappa = .42$ , 95% CI [.28, .56]). Since the interrater reliability was unsatisfactory, it was necessary to switch to another approach. After a long and thorough discussion, it became apparent that the investigators' responses about their reasoning were very much related to the questions they had formulated with respect to how they would present the pieces of evidence they deemed critical. However, the first round of coding was done without much consideration given to the investigators' question formulations. In order to be fair to the thinking processes on behalf of the investigators, the coders meticulously reviewed the responses together, while now taking into account the investigators' responses regarding their planned evidence use. These extensive discussions led to an agreement for the categorisation of each response. When the coders reached a consensus on each response, one person coded the remaining responses. For the few occasions ( $n = 11$ ) in which categorisation was difficult, this coder and the second coder together made the categorisation. This approach may have increased the subjectivity of the coding, but it is important to stress that the collective thinking of the coders led to high agreement.

## Results

*Planned evidence use.* A total of 543 pieces of evidence were assessed as critical by the investigators. This was calculated by adding up the number of pieces of evidence each

investigator listed as critical. On the basis of the 543 pieces of evidence, 320 questions were formulated. Of these 320, 283 (88.4%) were questions in which the evidence was planned to be used (either strategically or non-strategically) as required. However, 37 (11.6%) were questions which did not involve using the piece of evidence assessed as critical, thus these fell into the ‘other’ category. The evidence was planned to be used in a strategic manner 70% of the time and in a non-strategic manner 30% of the time. A paired samples *t*-test revealed that the investigators planned to use the evidence strategically ( $M = 2.87, SD = 2.42$ ) more often than non-strategically ( $M = 1.23, SD = 1.67$ ),  $t(68) = 4.25, p < 0.001, r = .46, 95\% CI [.25, .63]$ . Of all the investigators, 44.9% planned to disclose all the pieces of evidence strategically, while 17.4% planned to disclose all the pieces non-strategically. The remaining 37.7% planned to disclose some pieces of evidence in a strategic manner and the other pieces in a non-strategic manner.

Table 6. Examples of self-reported reasons for planned evidence use (Study IV)

Category	Sample statement ‘I plan to use this piece of evidence to...
1. To obtain new information about the evidence already held	...clarify why the suspect made two phone calls very late at night <sup>a</sup>
2. To obtain new information about the critical phase of the crime	...find out the suspect’s route from the party to his home <sup>b</sup>
3. To obtain new information about a theme unrelated to the crime	...get to know his relationship with the housemate <sup>c</sup>
4. To compare the suspect’s statement with the evidence already held	...compare the suspect’s statement about the chain of events with the witness statements <sup>c</sup>
5. To encircle	...establish who else uses his phone <sup>a</sup>
6. To support a hypothesis	...prove beyond doubt that the suspect knew the victim <sup>c</sup>
7. Other	...increase pressure (on the suspect) <sup>c</sup>

<sup>a</sup> The suspect made two phone calls to a friend after the murder had taken place

<sup>b</sup> This concerns the time period during which the murder took place, i.e. the critical phase

<sup>c</sup> The suspect denied knowing the victim

*Reasons behind planned evidence use.* The most frequently given reason for planning to use the evidence strategically was to compare the suspect’s statement with the evidence (35.5%). This was followed by obtaining new information about the evidence already held (22.3%) and ruling out alternative explanations for the evidence, i.e. encirclement (12.8%). The least frequently reported reasons were to obtain new information pertaining to the critical phase for which the investigators lacked information (9.5%), to obtain new information pertaining to a theme unrelated to the crime (9.5%), and to support a

hypothesis (6.6%). Furthermore, the most frequently given reasons to plan to disclose the evidence non-strategically were to obtain new information about the evidence already held (43.4%), to support a hypothesis (24.1%), and to compare the suspect's statement with the evidence (13.3%). It was rare that the investigators aimed to obtain new information about the critical phase (6.0%), to obtain new information unrelated to the crime (1.2%), or to rule out alternative explanations for the evidence, i.e. encirclement (1.2%).

## Discussion

The investigators planned to use the evidence strategically (i.e. obtain the suspect's statement before disclosing a particular piece of evidence) more often than non-strategically (i.e. disclose the evidence to the suspect before posing questions about it). This shows that the majority of investigators adhered to the suspect interviewing guidelines –which are all based on an information gathering approach –in their respective countries.

Two in every five investigators planned to use certain pieces of evidence in a strategic manner, and to use other pieces in a non-strategic manner. Put differently, these investigators planned to alternate between different evidence disclosure modes within the same interview. This finding encourages a reconsideration of the classification used in psycho-legal research when testing evidence disclosure modes. That is, previous research has typically compared interview conditions consisting of only one evidence disclosure mode: early, late or gradual. However, no research to date has tested the efficiency of a combination of these disclosure modes in the same interview for eliciting certain outcomes.

The investigators' goals commonly revolved around gathering information about the themes of evidence for which evidence already existed (e.g. they aimed to compare the suspect's statement with the evidence and obtain new information about the evidence itself). However, it was rare that the investigators planned to use the evidence to gain new information pertaining to the critical phase. One plausible explanation for this finding is that the investigators did not know how to use the available evidence as a means to elicit admissions about a critical phase for which information was lacking. The SUE-Confrontation tactic can be included in police training manuals as one of the tools that can be used in suspect interviews.



## GENERAL DISCUSSION

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The psycho-legal literature is scarce with respect to specific interviewing tactics aiming at eliciting admissions from suspects. The major aim of this thesis was to fill this void by introducing a novel interviewing tactic that draws on the general principles of the Strategic Use of Evidence framework (Granhag & Hartwig, 2015). This tactic, which was labelled the SUE-Confrontation, aimed at eliciting admissions through the strategic use of evidence. The comparative efficacy of the SUE-Confrontation interview was examined in a series of laboratory-based studies. In Study I, the SUE-Confrontation interview was subjected to its first scientific examination. In Study II, the SUE-Confrontation interview was refined, and an additional dependent variable was included to examine more thoroughly the contributions of the principles behind the SUE framework. Furthermore, in Study III, the ecological validity of the SUE-Confrontation interview was increased by providing the suspects with the opportunity to explain the discrepancies in their statements. Another major aim of this thesis was to explore how police officers use the available evidence with the goal of eliciting admissions. Thereby, in Study IV, police officers were surveyed regarding their planned use of evidence, as well as their reasons behind their planning. This thesis fulfilled these two aims by providing empirical support for the efficiency of the SUE-Confrontation tactic in eliciting admissions, and by providing insights into the police officers' planned use of evidence for eliciting admissions.

### Main findings

Basically, three main findings emerged from the studies comprising this thesis. First, the experimental studies provided empirical support for the notion that cues to deceit elicited by strategic interviewing can be utilised to elicit admissions from guilty suspects. Thus, this thesis offers empirical tests of the SUE-Confrontation tactic, through which an interviewer can elicit critical information about a phase of a crime for which information is lacking. Second, the findings lent support to the predicted relationships between the principles underlying the SUE framework (these relations are summarised in the next section). Third, this thesis revealed that it was very rare that the investigators surveyed planned to use the available evidence as a means to obtain admissions about a phase of a crime for which evidence was lacking.

In the following section, I will first elaborate on the findings of the experimental studies and then discuss their practical and theoretical contributions. Next, I will focus on the investigators' planned use of the evidence and discuss their planning in relation to strategic interviewing. Furthermore, I will suggest areas for future research and acknowledge some critical ethical issues. Finally, I will outline some practical implications and acknowledge the limitations of the work described in this thesis.

## The SUE-Confrontation tactic

The general principles behind the SUE framework allow for making the following assumptions: (a) a suspect's perception of the evidence will be malleable to the interviewer's strategy; (b) a suspect's perception of the evidence will affect his or her counter-interrogation strategy; and (c) a suspect's counter-interrogation strategy will dictate his or her verbal response. These assumptions were translated into steps of an interview protocol, whereby the interview would start with step (a), continue with step (b), and end with step (c). In the experimental studies, the interviewer aimed to activate this 'chain reaction' by employing the SUE-Confrontation tactic. That is, the interviewer used cues to deceit elicited by strategic interviewing (i.e. confronted the suspect with statement-evidence inconsistencies) to influence the suspect's perception of the evidence (a). The suspect's inflated perception of the evidence then resulted in the suspect switching his or her counter-interrogation strategy from withholding to forthcoming (b). In turn, the suspect's forthcoming strategy resulted in him or her disclosing information previously unknown to the interviewer (c). For the studies, each step was examined by a dependent variable. Below, I will elaborate on the findings obtained for each.

*Suspects' statement-evidence inconsistencies.* For the SUE-Confrontation tactic, the interviewer initially focused on the available evidence to elicit statement-evidence inconsistencies. The findings of Studies II and III showed that, for the less critical phases of the crime, the guilty suspects in the SUE conditions were more inconsistent with the evidence than the guilty suspects in the Early Disclosure condition. The guilty suspects, without knowing what information the interviewer held, avoided providing incriminating information, thus contradicting the interviewer's knowledge. Conversely, the guilty suspects who were made aware of the evidence against them presented a story that was consistent with the evidence to avoid contradicting the interviewer's knowledge. These findings are in line with the findings of previous studies (Hartwig et al., 2005; Hartwig et al., 2011; Jordan et al., 2012).

In deception detection research, the purpose of a SUE interview is to elicit diagnostic verbal cues that could be used to assess a suspect's veracity (e.g. Hartwig et al., 2005). In other words, the objective is fulfilled as soon as the interviewer has obtained cues to deceit or truthfulness. For the SUE-Confrontation interview, the two phases for which the interviewer held evidence were conducted in line with a paradigmatic deception detection interview; however, the interview did not end after these two stages. That is, the primary purpose of eliciting cues to deceit was not to detect deception; rather it was to gather new information (admissions). The interviewer confronted the suspect with the statement-evidence inconsistencies elicited, and used these confrontations to affect the suspect's perception of the evidence.

*Suspects' perceptions of the evidence.* In Study I, the guilty suspects perceived the interviewer to have had a substantial amount of information about the critical phase (the phase for which information was lacking), regardless of the interview condition. This finding was attributed to the effect of the control interviews being rather similar to that of

the SUE-Confrontation interview. That is, the evidence disclosure in the control interviews affected the suspects' perceptions of the evidence to the same extent as for the SUE-Confrontation interview. In brief, it was speculated that for the Early Disclosure interview, the repeated evidence disclosures, and for the No Disclosure interview, the repeated use of information (which was aimed at initiating the questioning) for the two less critical phases of the interview resulted in the suspects perceiving the interviewer to have more information than s/he was letting on. Based on this finding, the control interviews were revised for the subsequent studies. That was, for the Early Disclosure interview, instead of using early disclosure repeatedly for each phase, the interviewer presented the evidence in a lump at the outset of the interview (Study II and Study III). For the No Disclosure interview, the interviewer focused only on posing questions about the critical phase, and there was no mention of the interviewer's knowledge about the two phases for which s/he held evidence (Study II).

Studies II and III revealed that strategic interviewing resulted in the guilty suspects perceiving the interviewer to have had more information about the critical phase compared to the guilty suspects in the control conditions. The findings demonstrated that the interviewer's strategy resulted in the suspects overestimating the amount of information against them. For the SUE-Confrontation conditions, based on the interviewer's handling of the evidence in the first two phases of the interview, the suspects inferred that the interviewer probably had more information than s/he was letting on for each phase about which s/he posed questions. Hence, when the interviewer posed an open-ended question about the critical phase, the suspects assumed that the interviewer also had evidence about this phase (that s/he was withholding). Conversely, in the control conditions, the suspects were presented with evidence regarding the first two phases, but not the critical phase. Therefore, the suspects were able to make a more accurate estimation of how much information the interviewer possessed about the critical phase. These findings lent support to the first assumption made the SUE principles: A suspect's perception of evidence is susceptible to influence, and strategic interviewing is effective in making a suspect overestimate the amount of evidence an interviewer holds.

Moreover, a positive correspondence was found between the suspects' perceptions of the evidence and their forthcomingness in the SUE-Confrontation conditions (Study III). This showed that the suspects relied on their perceptions whilst deciding on their strategies. Another assumption made based on the SUE principles was also supported: A suspect's perception of the evidence influences his or her counter-interrogation strategy. Furthermore, as predicted, no such correspondence was found for the Early Disclosure condition. In the Early Disclosure condition, the interviewer was explicit about the evidence s/he possessed, and the suspects waited for the interviewer to present his or her evidence about the critical phase before responding. Since the interviewer did not disclose any evidence about the critical phase, the suspects decided upon an aversive strategy without having to rely on what they believed the interviewer may have known.

*Admissions.* In Study I, the guilty suspects in the SUE-Confrontation condition displayed highly forthcoming behaviour by disclosing admissions about the critical phase (although

their level of forthcomingness was not significantly greater than those in the control conditions). Furthermore, in Studies II and III, the suspects who were interviewed strategically disclosed comparatively more admissions about the critical phase. These findings lent support to the last assumption made based on the SUE principles: A suspect's counter-interrogation strategy dictates his or her verbal responses.

The findings can be interpreted through the lens of the self-regulation theory. This theory asserts that one diverts one's efforts toward activities that promote the goal adopted (e.g. Carver & Scheier, 2012). The goal striving process consists of forming a hypothesis based on an external input (i.e. information about the situation) and deciding on the most appropriate strategy. The strategy is then maintained (no behavioural change) or revised (behavioural change), depending on its suitability for goal attainment (MacKenzie, Mezo, & Francis, 2012). The necessity to revise the initial behaviour may arise from the feedback an individual receives about his or her performance. Such a new external input can provide guidance towards choosing a more goal-congruent strategy to maximise the likelihood of success (Locke & Latham, 2002). In the context of investigative interviewing, guilty suspects regulate their behaviours toward the goal of convincing the interviewer of their innocence (Granhag & Hartwig, 2008; Granhag et al., 2015). For the SUE-Confrontation interviews, the suspects' initial verbal responses were to be withholding, the most appropriate strategy they believed to serve their goal. Next, the interviewer delivered (negative) feedback in the form of evidence confrontations, informing the suspects that their withholding strategy was a setback in their goal attainment. That is, the statement-evidence inconsistencies undermined their credibility. The suspects, who were committed to their goal, thereafter revisited their initial strategy, and replaced it with a new strategy to try to overcome this setback. Thus, these suspects switched from a withholding to a forthcoming strategy to restore their credibility or to refrain from having further loss of credibility. In the next instance, the interviewer posed questions about the critical phase, and the suspects' new forthcoming strategy resulted in them volunteering incriminating information. In summary, strategic interviewing stimulated a revision process in suspects' verbal behaviours by giving feedback that they were failing to create a favourable impression. The suspects' responses to this feedback were to adopt a new strategy, which ultimately yielded admissions.

*Shifts in suspects' forthcomingness.* The findings showed that the guilty suspects in the SUE-Confrontation conditions switched from withholding to forthcoming strategies (Studies II and III). In line with the findings reported in this thesis, Luke and colleagues (2014; 2015) found that guilty suspects who believed that there might be evidence against them were more likely to adjust their counter-interrogation strategies, from less to more forthcoming. In these studies, the suspects altered their strategies before the interview. These findings differ from observations of real-life police interviews in which suspects have rarely been found to change their initial decisions to reveal or conceal information during an interview (Alison et al., 2013; Deslauriers-Varin et al., 2011; Soukara et al., 2009). This difference may be due to the interviewers, whose behaviours were observed, not playing an active role in trying to change the suspects' decisions. Furthermore, Walsh and Bull (2012) found that an interviewer's adherence to the PEACE interviewing

guidelines increased the likelihood of a suspect confessing to a crime that s/he initially denied in the same interview. The current thesis expands upon these findings. First, it was found that an interviewer's evidence disclosure strategy can promote a change in a suspect's verbal behaviour during the interview, rather than before the interview. Second, this change may increase the suspect's forthcomingness, and result in incriminating information in the absence of a confession.

Another finding worth mentioning is the timing of the suspects' shifts. In the SUE-Confrontation conditions, the suspects' statement-evidence inconsistencies were found to decrease from the first to the second phase of the interview. This decrease was statistically significant for the SUE-Confrontation conditions in Studies II and III, and non-significant for the SUE-Confrontation/Explain condition in Study III. From these findings one can infer that a number of the suspects in the SUE-Confrontation conditions adopted forthcoming strategies already after the first confrontation, resulting in a decrease in the mean inconsistency scores. Moreover, a portion of the remaining suspects decided to be forthcoming only after the second confrontation. A reasonable explanation for this is that some of the suspects realised just after the first evidence confrontation that their withholding strategy was not paying off. In contrast, other suspects had not yet deemed the confrontations to be a threat to their credibility during the first phase, but perceived the second set of confrontations as a warning that to maintain a withholding strategy could be damaging. Taken together, the guilty suspects who were interviewed in a strategic manner varied as to when they shifted their strategies. This finding has implications for the planning and conducting of interviews. An interviewer who is attentive to behavioural changes in a suspect during an interview may better adjust his or her own strategy. For instance, if a suspect does not react in a desired way to the planned evidence confrontations, the interviewer may then decide to use more pieces of evidence to confront the suspect so that s/he becomes aware of the threat posed to his or her goal attainment. Conversely, if a suspect is quick in adapting to the interviewer's strategy, the interviewer may pose questions regarding the critical phase earlier than planned, and use the remaining pieces of evidence to achieve a different interview goal.

Studies II and III further revealed that a portion of the suspects in the SUE conditions did not alter their strategies in any way. That is, they maintained their withholding strategy throughout the interview. This echoes the findings presented by Luke et al. (2014) where guilty suspects also displayed a bimodal pattern; approximately half of the suspects adopted forthcoming strategies and the other half adopted withholding strategies. There are two possible explanations for this. First, the withholding suspects may have believed that the most appropriate strategy to serve their goal (of appearing credible) was to conceal critical information, and that being confronted with inconsistencies was not a hindrance to achieving that goal. For instance, research has shown that experienced suspects (i.e. suspects who have been previously interviewed by the police) refrain from providing information to a relatively high extent compared to inexperienced suspects (Granhag et al., 2009). This is mainly due to the experienced suspects' belief that it is the interviewers' task to prove their guilt. Second, the suspects' behaviours could have been a failure of self-regulation. One important factor contributing to goal striving is self-

efficacy. This refers to the confidence one has in attaining his or her goal, and a lack of self-efficacy (e.g. 'I do not have the skillset to achieve this particular goal') may lead to goal abandonment (Locke & Latham, 2002). Moving on from this point, it is possible that the withholding suspects in Studies II and III abandoned their goals due to their belief that convincing the interviewer of their innocence was impossible. The negative feedback they received from the interviewer regarding their behaviour after the first confrontation may have led them to believe that the interviewer had already assessed them as guilty. As a result, it might have appeared futile to make any effort to regain their undermined credibility. These findings allow the drawing of the following inference: A guilty suspect's self-efficacy determines his or her willingness to participate actively in the interview. If a guilty suspect believes that it is impossible to restore his or her credibility, s/he may quit striving for this goal. Moreover, if a guilty suspect perceives that there is no risk to his or her credibility, s/he may deem it unnecessary to change his or her withholding strategy. In both situations, the interviewer may have no means left to drive the suspect's behaviour in the reverse direction. Thus, it is important that an interviewer strikes a balance with respect to challenging a suspect's credibility; s/he should neither be too harsh nor too lenient.

### Introducing a novel evidence disclosure tactic

Overall, the findings show that the SUE-Confrontation tactic is an efficient tool for eliciting admissions. In brief, if interviewers 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). This tactic is novel in several aspects: (a) it offers a way of using the evidence as a means to an end, i.e. to elicit information about a phase for which information is lacking; (b) it uses cues to deceit to elicit admissions; and (c) it alters guilty suspects' strategies *during* the interview. Moreover, the SUE-Confrontation tactic fills a gap in the psycho-legal literature with respect to specific evidence disclosure tactics. At the broadest level, the SUE-Confrontation tactic falls under the umbrella of information gathering approaches because the primary aim of this tactic is to collect information. At a more specific level, the SUE-Confrontation tactic can be placed within the SUE technique. The SUE framework has primarily been used to elicit cues to deception and truth (see Hartwig et al., 2014). However, the principles underlying the framework can also be used to gather information, and the SUE-Confrontation tactic is the first tactic developed for this particular purpose.

### Theoretical contributions of the experimental studies

This thesis makes a theoretical contribution to the body of psycho-legal research by providing empirical support for the relationships between the general principles constituting the SUE framework (Granhag & Hartwig, 2015). Although these principles have already been used in the research program on the SUE technique, the present thesis offers the first in-depth examination of the relationships between them. This thesis shows that: (a) a suspect's perception of how much evidence the interviewer holds is malleable to the interviewer's strategy; (b) a suspect's perception of the evidence affects his or her choice of counter-interrogation strategy; and (c) this strategy affects what the suspect reveals and conceals during the interview. Importantly, the use of the relationships

between the principles is not limited to the SUE-Confrontation tactic or to an information gathering context. It is possible to develop a multitude of tactics that are tailored to the need of the interviewer. One example is that the interviewer may disclose some but not other pieces of evidence early in the interview. In such an interview, the suspect may believe that the interviewer does not hold any more information than what s/he has already disclosed. The suspect may then, in his or her statement, contradict a piece of evidence that was not disclosed. In some instances, this one single statement-evidence inconsistency may be more valuable than a statement in which the suspect contradicts all (or most) of the existing pieces of evidence. Furthermore, in many situations, an interviewer possesses several pieces of evidence with varying degrees of precision. The interviewer may initially focus on the pieces of evidence with a high degree of precision (rather than on the critical piece with a low degree of precision), and disclose these pieces in a stepwise manner after obtaining the suspect's free narrative. That is, the interviewer frames the evidence with an increasing degree of precision, moving from the general to the specific (e.g. from 'We have information indicating that you were at the park' to 'We have information indicating that you met someone at the park and exchanged packages'). Next, the interviewer may focus on the critical piece, and disclose this evidence in its present form, i.e. with a low degree of precision. A suspect who believes that the interviewer possesses more specific information about this particular evidence may provide details the interviewer did not previously know.

These examples demonstrate the adaptability of different evidence disclosure modes to the goal of an interview if the SUE principles are employed. An interviewer can use the evidence in different ways so as to affect a suspect's perception of the evidence, and thereby reach the desired outcome. This way of thinking challenges the definition of 'strategic interviewing' as it is typically used in the psycho-legal literature. That is, researchers commonly categorise the use of evidence as strategic if the pieces of evidence are disclosed late or gradually, and as non-strategic if the pieces are disclosed at the outset of the interview (e.g. Dando & Bull, 2011; Hartwig et al., 2005). However, according to the SUE framework, the definition of strategic interviewing should not be based exclusively on the timing of the evidence disclosure. For example, early disclosure can be strategic if used to steer the interview in the direction of the interview goal, while late disclosure can be non-strategic if the interviewer fails to exhaust alternative explanations before the evidence is disclosed. In summary, the effectiveness of a certain evidence disclosure mode is not dependent upon its timing per se; instead, it is dependent upon whether or not it guides the suspect's behaviour in the desired direction.

### Investigators' planned evidence use to elicit admissions

Little is known about investigators' evidence use for situations in which they possess several pieces of evidence pertaining to less critical phases of a crime, but lack information on a more critical phase. The aim of Study IV was to explore investigators' preferred use of the available evidence in such situations. This was achieved by asking the investigators to plan an interview with a suspect in a fictitious criminal case. The objective of the interview was made clear to the investigators: they were to elicit new and critical information about the critical phase of the crime. The findings showed that the

investigators planned to use the available evidence in a strategic manner significantly more often than in a non-strategic manner. In other words, the investigators commonly planned to provide the suspect with the opportunity to address the evidence before revealing it, and they less frequently planned to make the suspect aware of the evidence before obtaining his or her statement regarding that particular piece of evidence. The majority of the investigators' preferred evidence disclosure strategies were in line with the recommendations of the suspect interviewing guidelines adopted in the investigators' respective countries (KREATIV in Norway, see Fahsing & Rachlew, 2009; The General Interview Strategy [GIS] in the Netherlands, see Hoekendijk & van Beek, 2015; PEACE model in England and Wales, see Milne & Bull, 1999). Here, it is important to point out that Study IV categorised the investigators' planned evidence use (whether or not it was strategic) based on the traditional categorisation made in the psycho-legal literature. Considering the discussion above with respect to the definition of strategic interviewing (i.e. that it should not be defined solely based on the timing of the disclosure), these findings should be viewed primarily as a description of when the investigators planned to disclose the evidence. The investigators' plans to obtain the suspect's statement about a piece of evidence before disclosing it (which was categorised as strategic use of the evidence) did not necessarily mean that these investigators planned to conduct a strategic interview.

Study IV also examined the reasons behind the investigators' planned use of the evidence. The investigators were asked to report on what they aimed to achieve with their planned use of the evidence. The findings showed that the most common reason was to expand their knowledge about the less critical phases of the crime (the phases to which the evidence belonged), and not the critical phase for which information was lacking. To be more specific, the most commonly stated reasons behind the investigators' planned evidence use were to: (a) compare the evidence with the suspect's statement; (b) gain new information about the suspect's activities before and after the crime; and (c) exhaust alternative explanations for the evidence. For instance, one of the pieces of evidence was the suspect's browser history showing that the victim's Facebook profile had been visited repeatedly two days before she was killed. An investigator using this piece of evidence would have the goal of expanding his or her knowledge about this particular piece by: (a) observing whether the suspect contradicted this fact in his statement; (b) finding out more about the suspect's use of social media; or (c) asking whether someone else had access to his computer. In brief, the information that the investigator planned to gather would pertain to the theme of evidence for which s/he planned to pose questions. Furthermore, very few investigators reported having adopted the goal of gathering new information about the critical phase. Put differently, the evidence was rarely planned to be used to gather information about a phase that was different than the one to which this particular piece of evidence pertained. It is possible to interpret these findings as the investigators being motivated to plan to use the evidence as an end in itself (to find out more about the theme of evidence asked about), rather than as a means to an end (to obtain information about the critical phase).



There are possible explanations for these findings. First, the investigators might have adopted an objective other than the objective given to them. The investigators' responses suggested that their objective might have been to expand their knowledge about the less critical phases. However, the data collected contained no lead with respect to why most of the investigators would have disregarded the given objective. Second, the majority of the investigators may have had little knowledge as to how to utilise the available evidence to elicit admissions. In other words, although they might have tried to fulfil the given objective, many of them might have lacked the necessary tools to do so. The latter explanation is perhaps the most likely. The investigators were trained (or were not trained at all) along suspect interviewing guidelines (e.g. the PEACE model), which offer techniques for using the evidence as a means in itself, but do not offer specific tactics for using the evidence as a means to an end. Put differently, there is no source for investigators to turn to in order to gain knowledge about using the evidence as a means to elicit admissions. Therefore, it is not surprising that the investigators' planning did not comprise the notion of utilising the information gained from evidence disclosure to achieve the objective of eliciting admissions about the critical phase. This highlights a gap in the investigators' repertoire of interviewing tactics. Considering the positive findings obtained in the experimental studies of this thesis, I suggest the SUE-Confrontation tactic to be included in suspect interviewing guidelines as one of the many tools that may be used in interviews. The principles underlying the tactic can improve how investigators handle the available evidence on a tactical level for information elicitation.

## Future directions

The empirical support obtained herein for the relationships between the SUE principles opens up several new avenues for research. Some of these have been mentioned above in the context of potential tactical uses of evidence in information gathering and deception detection contexts. However, the research drawing on the SUE framework can be expanded to many more situations. For instance, interviewing tactics can be studied in situations where the strength of the evidence, the amount of the evidence, the number of suspects, and the number of interviews vary. The tactic can also be tested with different types of crime (e.g. property and personal crimes) and suspects (e.g. inexperienced vs. experienced). Furthermore, more research is required to establish the effects of the SUE-Confrontation interview on innocent suspects in scenarios other than the one used in Study I. In Study I, the critical phase of the innocent suspects' task consisted of going to a library and checking out brochures and books, and there was no logical reason for them to conceal these activities from the interviewer. However, in real-life, things can be more complicated, and an innocent suspect may have several reasons to omit information or to contradict the evidence presented in an interview. For instance, the innocent person may have been seen at the scene of a murder. Although s/he has not committed the murder, s/he may (for one reason or another) conceal the fact of having been there. It is not yet clear how the SUE-Confrontation interview may affect an innocent suspect's willingness to share information in such situations.

Another topic for future research is suspects' counter-interrogation strategies. Understanding suspects' strategies is key to developing techniques and tactics to enhance information gathering. As argued by Granhag and Hartwig (2008), one of the factors contributing to the efficacy of an interview is the interviewer's ability to mind-read the suspect. Psychological mind-reading refers to the ability to reflect upon another's mental state and to predict their subsequent response (Perner & Kuhberger, 2005). An interviewer who is successful in correctly anticipating the suspect's verbal strategy will be able to adopt appropriate strategies to counteract it. This highlights the need to investigate suspects' counter-interrogation strategies and their reasoning during interviews. While this thesis advances the current knowledge of this matter, more research is needed.

## Ethical considerations

### The experimental design

The experimental design used in Studies I, II, and III required the participants to commit a mock crime, and to lie during the interview. Being engaged in activities that are considered morally wrong may be stressful for the participant. This stress is one of the strengths of such experimental designs as it mimics real-life situations; however, it should not exceed a certain level as it may harm the participant. To overcome this problem, the participants were informed, before the experiment, that their activities would have no real legal consequences, and that they could withdraw from the study at any time without giving a reason and without losing their compensation. Lastly, it was foreseen that some of the activities performed by the participants (e.g. breaking into an office) could have been regarded as suspicious by others, resulting in misunderstanding and placing the participants in a distressing situation. To minimise this possibility, staff members and security personnel (of the university buildings where the participants performed their tasks) were notified about the experiments, and were asked not to interfere. No such incidents occurred during the experiments.

Ethical approvals for Studies I and II and for Studies III and IV were obtained from the ethics committees at the University of Gothenburg, and at the University of Portsmouth, respectively (for favourable decisions received, see Appendices A, B, and C).

### Using the SUE-Confrontation tactic in real-life

One may raise ethical concerns about the use of the SUE-Confrontation tactic, as the interviewer, by withholding the evidence, aims to misdirect the suspect to make incorrect inferences about the interviewer's knowledge (i.e. to make him or her believe that there is more information when in fact there is none). Although, concealing information is a form of deceit according to the paradigmatic definitions of deception (Vrij, 2008), in an investigative interview, the intent behind this concealment (to gather accurate information) can be considered ethical (Hartwig, Luke, & Skerker, in press). According to Hartwig and colleagues, every suspect interview inherently involves deceit, and they argue that an interviewing method becomes unethical when the degree of this deceit is no longer morally acceptable. More specifically, the line is crossed when a method infringes upon the suspect's rights and takes away his or her autonomy, i.e. his or her capacity to

make decisions about self-chosen actions. For instance, in a confession-oriented interview, an interviewer who uses a false evidence ploy aims to demonstrate that, in the light of this strong evidence, the suspect has no option other than to confess to the crime. This kind of deceit restricts the suspect's autonomy, and leaves him or her with no choice regarding what to share with the interviewer. Conversely, ensuring a suspect's autonomy will promote ethical interviewing as the suspect will be free to decide what to reveal and conceal. As for the SUE-Confrontation interview, although the interviewer influenced the suspect's perceptions about how much information existed against him or her, the interviewer did not push the suspect to reveal information that s/he did not want to reveal. In summary, the extent to which an interviewer engages in evidence disclosure strategies in a SUE-Confrontation interview lies within the borders of ethical interviewing.

## Practical implications

The experimental set-up of the empirical studies mirrors a situation that occurs rather frequently in real-life. That is, an interviewer possesses some background information about a suspect's whereabouts, but has less or no information about a more critical phase of the crime. This thesis provides empirical support for a novel evidence disclosure tactic, the SUE-Confrontation, which can be used by interviewers in these types of situations. To examine the comparative efficacy of the tactic, pre-scripted interview protocols were used in the studies. In other words, the tactic was used in a rather static way with respect to posing questions about the crime phases. Nevertheless, the SUE-Confrontation tactic can be used in a flexible manner and can be adjusted to the complexities of real-life. For instance, the interviewer may pose questions about a phase of the crime, and may return to this at a later stage of the interview, or s/he may choose to avoid posing questions or disclosing evidence regarding a particular phase. In addition, an interviewer who employs the SUE-Confrontation tactic may accomplish multiple goals by eliciting both verbal cues to deceit (i.e. statement-evidence inconsistencies) and admissions. Both these outcomes are critical when a prosecutor builds a case regarding a suspect's possible involvement in a crime. This thesis also provides empirical support for the relationships between the general principles underlying the SUE framework. These principles stem from the SUE framework, but can be utilised within any information gathering framework. For instance, an interviewer who is trained in the PEACE framework may use the SUE principles. As long as the interviewer possesses evidence, s/he can plan the evidence disclosures by taking into consideration how it will affect the suspect's perception of the evidence, and consequently his or her verbal behaviour.

As established above, withholding evidence from suspects is ethical in an investigative interview and is absolutely necessary in many instances. There is an ongoing discussion within the criminal justice system with respect to the suspects' right to information in criminal proceedings. This discussion concerns, among other things, whether or not the police should be allowed to withhold evidence from suspects and their lawyers before and during suspect interviews, and the rules and regulations governing this matter differ from country to country. Importantly, a suspect's right to pre-interview disclosure is different from the right to be informed about the criminal act of which s/he is

suspected or accused. The latter is a human right, and should not be open to discussion. On one side of the pre-interview disclosure discussion are those who advocate allowing police discretion to decide what information should be revealed to a suspect. The opposing voice argues that when lawyers do not have access to incriminating evidence against their clients, their ability to provide the necessary legal advice to safeguard their clients' best interest is compromised (e.g. Sukumar, Hodgson, & Wade, 2016, also see Sukumar, Wade, & Hodgson, 2016).

Considering the police's duty to find out the truth in an investigation, it is often necessary for an interviewer to employ evidence disclosure techniques and tactics. Any obligation to ensure pre-interview disclosure may compromise this information seeking process. The following examples demonstrate how having to reveal all the evidence early in an interview can threaten the very basis of a criminal investigation. For instance, if a suspect is presented with the evidence at the outset of the interview, s/he is less likely to reveal new information. Knowing what the interviewer does and does not know, a guilty suspect will likely avoid disclosing information beyond what was presented to him or her, and an innocent suspect may perceive the presented evidence as the only topic that is relevant to the interviewer and as a consequence restrict his or her statement to what was presented. Moreover, if a guilty suspect is unaware of the evidence, the interviewer will have the chance to exhaust alternative explanations to the evidence. The guilty suspect who refuses these alternative scenarios will experience difficulty in providing an innocent explanation once the evidence is presented at a later stage of the interview. This will not be achievable in the case of early disclosure. In another scenario, the evidence possessed by the interviewer may be inaccurate (e.g. a statement from an eyewitness whose memory is flawed). Presenting this evidence at an early stage can contaminate the suspect's memory of the events (for an extensive review of the misinformation effect, see Loftus, 2005). In the absence of an opportunity to correct the mistake, the police may end up presenting inaccurate evidence to the prosecutor. Taken together, forced early revelation of evidence adversely affects a criminal investigation by being counter-productive to the very purpose of the investigation, which is to bring the truth to light. On the other hand, the discretion afforded to the police regarding what to reveal and conceal may facilitate the elicitation of incriminating information from a guilty suspect or exonerating information from an innocent suspect.

## Limitations

One limitation that holds for all empirical studies is that the samples consisted of students and community members who might not have been representative of a typical suspect. However, suspects in real-life situations might be more strongly motivated to convince the interviewer of their innocence. They would presumably be engaged in more strategic decision making and would be less inclined to abandon their goals. In such cases, the SUE interviews may be even more effective than those conducted in laboratory settings (Granhag et al., 2009). Moreover, a limitation of Study III is that the contents of the suspects' explanations were not examined. The explanations provided by suspects may be crucial for an investigation, as they could provide the interviewer with further

information about the crime and/or the suspect's veracity. For instance, a thorough explanation, as opposed to a superficial one, might contain a new lead for the investigation.

Study IV has two main limitations. First, there was a lack of interaction between the investigator and the suspect. Thus, it is not possible to comment on the extent to which the investigators' pre-interview plans might have changed as a result of the suspect's behaviour. For instance, a suspect's initial response to the investigator's strategy may be unanticipated, which may hinder the investigator's goal attainment. As a result, to counteract the suspect's strategy, the investigator may consider revising his or her initial plan with respect to the use of evidence that has not yet been disclosed to the suspect. Second, a small number of investigators planned to use the evidence as a means to elicit admissions about the critical phase. However, the study design did not allow for follow-up questions to be posed to these investigators. Such questions might have provided insights into the underlying mechanisms that the investigators believed to yield admissions as a result of their planned evidence use.

Some limitations pertaining to the SUE-Confrontation tactic should also be acknowledged. First, to be able to employ this tactic, the interviewer should possess some potentially incriminating information. Second, before disclosing the incriminating information, the interviewer should ensure its accuracy, which might be difficult in some situations. Confronting the suspects with unverified information might have undesired outcomes, such as false admissions and/or false confessions (Meissner et al., 2014). Third, the SUE-Confrontation tactic cannot be used for interviews in which a suspect exercises his or her right to silence. However, this limitation applies to any technique or tactic used in such a case.

## Conclusions

Three main conclusions can be drawn from the thesis. First, the SUE-Confrontation tactic seems to be effective at eliciting admissions from guilty suspects. This tactic offers a new and ethical way to use the evidence as a means to an end. Second, this thesis offers empirical support to the described relationships between the general SUE principles (Granhag & Hartwig, 2015). It is argued that this model can be utilised in any investigative interviewing framework and is adaptable to many different criminal cases. Finally, the SUE-Confrontation tactic and the principles behind the tactic can be included in police officers' training to improve suspect interviewing practices. In summary, this thesis provides an answer to the question asked at the outset: How should an interviewer use the available evidence in order to elicit new and critical information from a suspect?



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## APPENDICES

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### Appendix A: Favourable ethical opinion (Study I & Study II)



GÖTEBORGS UNIVERSITET  
*Psykologiska institutionen*

GÖTEBORG UNIVERSITY, *Department of Psychology*

Gothenburg, Sweden, May 23, 2016

To whom it may concern,

This letter concerns the two studies carried out by doctoral student Serra Tekin at the University of Gothenburg (Department of Psychology) to be included in her PhD thesis.

Title of studies:

Study I. Strategic interviewing to elicit admissions: Guilty versus innocent suspects

Study II. Interviewing strategically to elicit admissions from guilty suspects

We have been running structurally similar studies at the Psychology Department for 15 years (40+ individual studies), using – more or less- the same paradigm and experimental setup. The Regional Ethical Review Board has explicitly and repeatedly informed us that we do not have to run each study (using this paradigm) via them. For those occasions where we submitted an application for a singular study, they have just returned the application with the response “We have received your application, but this study is not necessary to run through the Ethics Board”.

I attach one such statement from the Regional Ethics Board (unfortunately these statements only come in Swedish). This particular example regards a study where we examined the Scharff-technique (2012); importantly, in terms of structure, participants, instructions and interviews, this study is very similar to the studies that have been carried out for Serra Tekin’s PhD (with me as her main supervisor).

Sincerely,

Pär Anders Granhög, PhD  
Professor of Psychology  
Director of the unit Criminal, Legal & Investigative Psychology (CLIP)

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Regionala etikprövningsnämnden i Göteborg

Sida 1 av 1

**Projektansvarig:**  
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**Dnr:**  
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Exp. 2012-12-12

**Forskningshuvudman:** Göteborgs universitet

**Närvarande:**  
Olle Holmstedt, *ordförande*  
Lars Sandman, *vetenskaplig sekreterare, jävig ärende 883-12*

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**Ledamöter som företräder allmänna intressen:**  
Erling Alriksson  
Lisbeth Ekman  
Bengt Fernström  
Marianne Henningsson  
Pia-Lotta Ranmalm Lagerlöf

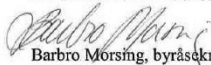
**Projekttitel:** Scharff-tekniken: Att bekräfta eller dementera viktig information

**Beslutsprotokoll från sammanträde med Regionala etikprövningsnämnden i Göteborg, Avdelningen för övrig forskning, den 10 december 2012**

*Föredragande: Bengt Brülde*

**Rådgivande yttrande**  
Etikprövningsnämnden finner att studien inte omfattas av etikprövningslagen och avger följande rådgivande yttrande. Ansökan tillstyrks.

Att denna avskrift i transumt överensstämmer med originalet intygar:

  
Barbro Mörnsing, byråsekreterare

---

Regionala etikprövningsnämnden i Göteborg  
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## Appendix B: Favourable ethical opinion (Study III)



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11<sup>th</sup> Nov 2014

### Science Faculty Ethics Committee

Protocol Title: SFEC 2014-077, Strategic interviewing of guilty suspects  
Date received PI response from 1<sup>st</sup> review letter: 6<sup>th</sup> Nov 2014  
Date Reviewed: 11<sup>th</sup> Nov 2014

### FAVOURABLE OPINION

Dear Miss Tekin,

Thank you for your submission for ethical review. Having completed their review, members of the Science Faculty Ethics Committee have reached a Favourable opinion of your proposed research.

Please notify the committee of any substantial amendments to the proposed procedures, send an annual report to the committee regarding study progress and a final study report once the study has concluded. Please send these to [sci.fac@port.ac.uk](mailto:sci.fac@port.ac.uk). Thank you and the committee wishes you well with your study.

*Dr Simon Kolstoe – Vice Chair SFEC*

A handwritten signature in black ink, appearing to read 'S. Kolstoe'.

CC -  
*Holly Shawyer – Faculty Administrator*

If you would like to offer any feedback on the Science Faculty Ethics Committee process please email [sci.fac@port.ac.uk](mailto:sci.fac@port.ac.uk) to be forwarded to the Chair



## Appendix C: Favourable ethical opinion (Study IV)



Serra Tekin  
Department of Psychology  
University of Portsmouth

serra.tekin@psy.gu.se

### Science Faculty Ethics Committee

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3<sup>rd</sup> December 2015

### FAVOURABLE ETHICAL OPINION

Study Title: **Police interviewing practices: Collecting information from suspects**  
Reference Number: **SFEC 2015-089** (Please quote this in any correspondence)

Thank you for resubmitting your application to the Science Faculty Ethics Committee (SFEC) for ethical review following the 1<sup>st</sup> SFEC review dated 24/11/15 in accordance with current procedures<sup>1</sup>.

I am pleased to inform you that SFEC was content to grant a favourable ethical opinion of the above research on the basis described in the submitted documents listed at Annex A, and subject to standard general conditions<sup>2</sup>.

Please note that the favourable opinion of SFEC does not grant permission or approval to undertake the research. Management permission or approval must be obtained from any host organisation, including the University of Portsmouth or supervisor, prior to the start of the study.

Wishing you every success in your research

Yours sincerely,

A handwritten signature in black ink, appearing to read 'S. Kolstoe'.

Dr Simon Kolstoe  
Alternate Vice Chair Science Faculty Ethics Committee

Information:  
Prof Aldert Vrij  
Holly Shawyer - Faculty Administrator

<sup>1</sup> Procedures for Ethical Review, Science Faculty Ethics Committee, University of Portsmouth, October 2012 (to be updated).

<sup>2</sup> After ethical review – Guidance for researchers (Please read).

**Statement of compliance**

SFEC is constituted in accordance with the Governance Arrangements set out by the University of Portsmouth

**After Ethical Review**

If unfamiliar, please consult the advice After Ethical Review<sup>2</sup> which gives detailed guidance on reporting requirements for studies with a favourable opinion, including, notifying substantial amendments, notification of serious breaches of the protocol, progress reports and notifying SFEC of the end of the study.

**Feedback**

You are invited to give your view of the service that you have received from the Faculty Ethics Committee. If you wish to make your views known please contact the administrator at [ethics-sci@port.ac.uk](mailto:ethics-sci@port.ac.uk)