Eliciting Human Intelligence with the Scharff technique: Exploring the Ordering of the Claim-tactic

Master thesis

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"What did he get out of me? There is no doubt in my mind that he did extract something, but I haven't the slightest idea what. If you talked to him about the weather or anything else, he no doubt got some information or confirmation from it."

- Prisoner of War (Toliver, 1997, p. 193)

Abstract

Previous research on human intelligence gathering techniques primarily focused on the quantity of information. This is one of the first studies that also examined the quality of information, with which is meant the value of eliciting isolated pieces of information for fulfilling information requirements. This explorative study is about the claim-tactic of the Scharff-technique and examined whether the position of an incorrect claim (D = disconfirmation), in a series of correct claims (C = confirmation), affected the elicitation of the isolated piece of information sought after with that incorrect claim. Participants (N = 307) were randomly allocated to either the (1) CCC-condition, (2) DCC-condition, (3) CDC-condition, (4) CCD-condition or the (5) Direct Approach-condition. First, the participants had to imagine being an informant. They received information about a planned attack and were informed to not reveal too little or too much information during an upcoming interview. Next, they listened to an interviewer-monologue after which they were interviewed about the planning of the attack. As predicted, the Scharff-technique resulted in more new information than the Direct Approach, but only when a mix of correct and incorrect claims were presented. Furthermore, the Scharff-technique was more effective in eliciting a specific piece of information than the Direct Approach, but only when a correct claim was used to elicit the piece of information. Unexpectedly, the position of the incorrect claim did not affect the elicitation of the specific piece of information of that claim. This study provides support for the Scharff-technique as a promising human intelligence gathering technique to elicit specific pieces of information.

Eliciting Human Intelligence with the Scharff technique: Exploring the Ordering of the Claim-tactic

Gathering information about criminal activities and networks of people is highly important to prevent terrorism and other criminal activities. Information can be gathered with the use of several types of sources, such as documents and technical means. However, information can also be gained from people, which is referred to as human intelligence (HUMINT) (Coulam, 2006). Human intelligence can be defined as the collection of information from human sources by means of an interaction between two or more people (Justice, Bhatt, Brandon & Kleinman, 2010 as cited in Granhag, Montecinos & Oleszkiewicz, 2013). Gathering human intelligence is, therefore, a dynamic, reciprocal process of obtaining information from sources (Borum, 2006; Coulam, 2006). It involves not only obtaining reliable information about past, current and possible future activities, but also about networks of people (Hartwig, Meissner & Semel, 2014). The aim of collecting this information is maintaining and improving national security, protecting our own population and important institutions, supporting allies and maintaining civic order and stability (Coulam, 2006; Evans, Meissner, Brandon, Russano & Kleinman, 2010). One form of obtaining information is *information elicitation,* for which is the goal to collect information in such a way that the source remains unaware of the interviewer's information objectives and underestimates his or her own contribution (Oleszkiewicz, Granhag & Kleinman, 2014).

Human intelligence gathering received increased attention in the aftermath of the terrorist attacks on 9/11 (Brandon, 2011; Granhag et al., 2013). Although the nature of the attacks raised attention to the need for methods tailored for national security interests, the amount of scientific literature about human intelligence gathering techniques has remained meagre (Granhag, Kleinman, & Oleszkiewicz, 2016; May, Granhag & Oleszkiewicz, 2014). However, researchers have recently started to remedy this lack of research by examining techniques for gathering human intelligence (Granhag et al., 2013; May & Granhag, 2016). One of the techniques that has recently gained interest of researchers is the Scharff technique, an interview approach used by renowned World War II interrogator Hanns Joachim Scharff. His technique consists of five interrelated tactics. One of the tactics used by Scharff was that he rarely asked explicit questions. Instead, he presented claims, which he sought to get confirmed or disconfirmed by the source (Granhag et al., 2013). The aim of this study is to further examine the efficacy of the Scharff technique. The claim-tactic is at the heart of this study, as this study will examine when presenting claims can be effective in obtaining a specific, isolated piece of information from a source.

Developments in Human Intelligence Gathering

From the distant past to the 1930s, torture tactics were common practice in interrogations (Kassin et al., 2010; Otis, 2006). These tactics are often referred to as 'third degree tactics' and were applied to achieve compliance and extract confessions from criminal suspects. Examples of torture tactics are (threats of) physical violence, waterboarding and deprivation of sleep and other basic needs (Hartwig et al., 2014; Kassin et al., 2010). In the 1930s, the use of torture tactics declined and were replaced by accusatorial techniques. These techniques included more subtle forms of manipulation, coercion and deception and were believed to be more effective than torture (Drizin & Leo, 2004). Such accusatorial methods were based on *customary knowledge*: practices that are developed over time through experiences, handed down through observational learning and storytelling and ultimately codified in manuals, policies and regulations (Hartwig et al., 2014).

Over the past decades these interrogation techniques were broadly criticized, because research found that practices with an accusatorial ethos increased the likelihood of a false confession and, as a consequence, increased the chance of false convictions (Brimbal, Kleinman, Oleszkiewicz & Meissner, 2019; Drizin & Leo, 2004; Kassin et al., 2010). Drizin and Leo (2004) stated that almost all false confessions in the United States occur because of psychologically coercive interrogation methods. Despite the lack of scientific evidence supporting the effectiveness of accusatorial techniques and the increasing amount of research demonstrating the ethical and legal problems of these practices, accusatorial techniques still pervade the interrogation booth and are still used in training practices of professionals in the United States (Meissner, Surmon-Böhr, Oleszkiewicz & Alison, 2017) .

On a more positive note, England and Wales began to move away from these tactics in the 1990s by implementing a non-coercive, information-gathering approach. This approach is referred to as the PEACE-model and is now widely implemented by other countries. This model is focused on developing rapport, informing the suspect of the allegation and accentuating the importance of honesty and truth gathering (see Milne & Bull, 1999 as cited in Hartwig et al., 2014; Meissner et al., 2017; Meissner et al., 2014). Moreover, researchers built upon this approach and have evaluated the effectiveness of this method for gathering intelligence. The information-gathering approach has been found to be superior to the accusatorial approach regarding the information yield. In addition, the information-gathering approach significantly increases the true confession rates and decreases the likelihood of a false confession (Meissner et al., 2014).

Hanns Scharff - the Luftwaffe's Master Interrogator

During the times of World War II, sources were predominantly faced with accusatorial techniques. However, Hanns Joachim Scharff (1907-1992) did not make use of accusations. He elicited information using an unconventional method, making him a highly successful interrogator. As Scharff said: "By using the best psychological approaches of statesmanship and befriending the prisoners of war, I could obtain all the necessary information from over 90% of the prisoners" (Toliver, 1997, p. 190). Scharff served with the German *Luftwaffe* during World War II. From 1943 till 1945 he interrogated U.S. and British airmen who were captured during combat missions over German-occupied Europe (Toliver, 1997; Shoemaker, 2008). Scharff was not formally trained in interrogating sources. Instead, he observed his colleagues and sources during interviews. His opinion was that the standard protocol at the time was ineffective in eliciting information. To improve the manner how sources were interrogated, he imagined oneself in the prisoner's position (Granhag et al., 2013; Oleszkiewicz, 2016). This tactic shows similarities with the psychological concept of perspective taking, which is defined as the cognitive capacity to consider the world from another's point of view (Galinsky, Maddux, Gilin, & White, 2008). The goal of perspective taking is to improve the ability to predict the other's behavior (Granhag & Hartwig, 2008) and is found to be a critical and valuable ability in achieving successful outcomes in negotiations (Galinsky et al., 2008). However, Granhag and Hartwig (2008) argued that 'mindreading', which could be considered as a cognitively applied form of perspective taking, is also important in the interrogation booth. The ability to take the perspective of the source lies at the heart of the Scharff technique. By imagining oneself in the position of the source, Scharff was able to uncover the counterinterrogation strategies that are commonly adopted by sources. Granhag and colleagues (2016) described three counterinterrogation strategies:

1. 'I will not tell very much during the interrogation.'
2. 'I will try to figure out what they want to know, and then make sure not to give them what they want.'
3. 'It is meaningless to deny or withhold what they already know.'

By having a better understanding of his sources' counterinterrogation strategies, Scharff was able to develop tactics to counteract these strategies, which allowed him to elicit critical information from his sources more effectively than his fellow interrogators. These countertactics are conceptualized as the five tactics forming the Scharff technique (Granhag et al., 2016).

The Tactics of the Scharff Technique

Employing a friendly approach. Contrary to the accusatorial approaches prevalent at the time, Scharff employed a friendly approach. He was polite and avoided to use any form of coercion. He adopted a conversational approach and created an environment in which the source felt comfortable (Oleszkiewicz, 2016; Toliver, 1997). To achieve this, he showed acceptance and adaptive interpersonal behavior (Alison, Alison, Noone, Elntib & Christiansen, 2013; Granhag et al., 2016). This approach is in line with rapport-building, which is related with an increased information yield and cooperation of the source (Alison et al., 2013; Russano, Narchet, Kleinman & Meissner, 2014).

Do not press for new information. Scharff did not press his sources for new information. He rarely, if ever, asked explicit questions (Toliver, 1997). Instead, he offered the source the opportunity to add new information to the stories he told and to confirm or disconfirm claims. To encourage the source to add information and to respond to claims, it is important that the interviewer acknowledges the source's intrinsic motivation and autonomy (Granhag et al., 2016; Oleszkiewicz, 2016).

Establish an 'illusion of knowing it all'. Scharff started the interview with explaining that it is unlikely that the source would be able to provide information beyond what he already knew (Toliver, 1997). Then, he told an elaborate and detailed story based on previously known information showing that he is well informed on the topic (Granhag et al., 2016). Presenting previously known information to the source and creating the illusion that the interviewer holds a fair amount of knowledge has two purposes. First, to appear cooperative, the source has to provide information beyond what the interviewer has told. Secondly, the source might think that the interviewer holds more information beyond what he has told. If the source misperceives the knowledge of the interviewer and adopts the counterinterrogation strategy to only provide information what is already known, the source might provide information that is new to the interviewer (Granhag et al., 2016; Oleszkiewicz, 2016).

Use confirmations/disconfirmations (claim-tactic). Instead of asking direct questions, Scharff presented claims (e.g. "We know that the attack will take place on October 26th"), that he sought to get confirmed (e.g. "that is correct") or disconfirmed by the source (e.g. "that's incorrect"). Confirming or disconfirming claims may be perceived by the source as a less active form of complicity than answering direct questions (Oleszkiewicz, 2016). Scharff incorporated the claims in the stories he told to his prisoners (Toliver, 1997) and used this tactic creatively. He could present claims of which he knew the answer already in order to have these claims confirmed by the source, but every so often he posed a claim of which he

did not know the correct answer (Toliver, 1997; Oleszkiewicz, 2016). Having claims confirmed or disconfirmed provided Scharff with new and useful information, although the source did not say very much (Granhag et al., 2013; Oleszkiewicz, 2016). Moreover, in this way the source remained unaware of the interviewer's information objectives (May et al., 2014). Hence, Scharff was able to elicit new and critical information, while simultaneously masking his information objectives and keeping the source unbeknownst to the new information (s)he revealed (Granhag et al., 2013; May et al., 2014).

Ignore new information. When the source provided Scharff with new information, he downplayed this information as already known or as unimportant. With this tactic, Scharff was able to mask his information objectives and to prevent revealing to the source that (s)he had provided information of interest (Oleszkiewicz, 2016; Toliver, 1997;).

Previous Research on the Scharff Technique

In the first scientific study of the Scharff technique conducted by Granhag and colleagues (2013) an experimental paradigm was introduced that mirrored some main features of a HUMINT situation. Participants were provided with information about an upcoming terrorist attack and were informed to not reveal too much, nor too little information during an upcoming interview. The participants faced one of the three different interview techniques: the Scharff technique, open questions only or specific questions only. Sources interviewed with the Scharff technique had more difficulty reading the interviewer's information objectives compared to the other techniques. Contrarily to what was expected, the three interview techniques did not differ in terms of the amount of new information yield. This unexpected finding was attributed to a failure in properly establishing the 'illusion of knowing it all' before the use of claims. Specifically, the claims were posed while creating the illusion of knowing it all, which may have reduced the effectiveness of the claim-tactic. Therefore, a study by Oleszkiewicz, Granhag, and Montecinos (2014) implemented the Scharff technique sequentially (establishing the 'illusion of knowing it all' before presenting claims) and compared it with the so-called Direct Approach. This approach consists of a combination of open-ended and specific, direct questions asked in a business-like manner (United States Army, 2006). This stepwise presentation of the tactics of the Scharff technique showed promising outcomes and several studies continued the research on the Scharff technique and compared it with the Direct Approach.

The previous research on the Scharff technique has consistently shown that the Scharff technique outperforms the Direct Approach on four independent measures of relevance for

gathering human intelligence: (1) the Scharff technique elicits more new information than the Direct Approach; (2) participants interviewed with the Scharff technique have more difficulty with reading the interviewer's objectives than the Direct Approach; (3) participants interviewed with the Scharff technique think that the interviewer holds more information prior to the interview than participants facing the Direct Approach; and (4) participants interviewed with the Scharff technique underestimate their contribution, whereas sources faced with the Direct Approach overestimate their contribution (Granhag et al., 2016; May & Granhag, 2016; May et al., 2014; Oleszkiewicz, 2016; Oleszkiewicz, Granhag & Kleinman, 2017).

Moreover, five measures for mapping the efficacy of human intelligence gathering techniques have been identified: (1) the amount of new information elicited; (2) the source's perception of the interviewer's prior knowledge; (3) the source's perception of the interviewer's objectives; (4) the source's perception of the amount of information (s)he has revealed; and (5) the relation between the objective amount of new information revealed and the perceived of the amount of new information revealed (Granhag et al., 2016).

Furthermore, and highly relevant for the current study, two studies closely examined the claim-tactic. May and colleagues (2014) compared three conditions with each other: a confirmation-condition in which four correct claims were presented, a disconfirmation-condition in which four incorrect claims were presented and a Direct Approach condition. The interview started with an initial open-ended question, after which the claims/questions were presented. Then, a final open-ended question was asked. The results showed that Scharff technique resulted in more new information than the Direct Approach. Moreover, sources interviewed with the Scharff technique perceived that they revealed less new information than they objectively revealed, whereas sources interviewed with the Direct Approach perceived to have revealed more new information than they objectively revealed. However, the confirmation- and disconfirmation-condition resulted in the same amount of new information revealed. The study conducted by Oleszkiewicz, Granhag and Kleinman (2014) included three conditions: a confirmation condition in which three correct claims were presented, a mixed condition in which one of the three claims presented was incorrect, and a Direct Approach condition. The confirmation condition resulted in more new information than the Direct Approach, but the mixed condition did not result in more new information than the Direct Approach and resulted in less new information than the confirmation condition.

Measures of Efficacy: Quantity versus Quality

The extant research on the Scharff technique has primarily examined the quantity of

information. That is, the efficacy of the technique is often determined by the amount of information yield. It is therein assumed that the more information that is retrieved from a source, the better is the technique. However, quantity does not automatically relate to efficacy (Oleszkiewicz, 2016). Interviewers may be able to elicit large amounts of information, but if this information would not be accurate, would not contribute to the knowledge of the interviewer and, subsequently, would not enhance the status of an investigation, such an outcome would not fulfill all information requirements.

Besides the quantity, the quality in terms of the accuracy of the information yield is an important focus of any intelligence interview (Evans et al., 2010). The primary goal of a human intelligence gathering interview is to elicit accurate and operationally useful information (Hartwig et al., 2014). The accuracy of the information yield depends, in part, on the source's capacity to recall the information correctly from their memory (Borum, 2006; Goldsmith, Koriat, Weinberg-Eliezer, 2002). A substantial amount of research shows that memories of events can be unreliable and inaccurate, as memories are reconstructions rather than perfect records of the reality. Moreover, due to the fragility of memory, memories of events can be altered, and details can be forgotten (Borum, 2006).

In a conversation in which information has to be recalled from memory, people tend to avoid providing inaccurate information by withholding details of information that they feel unsure about or by providing relatively coarse information (Goldsmith et al., 2002). Similarly, in a human intelligence gathering interview sources may also provide information that differ in specificity. Cooperative sources may omit details unintentionally, but less cooperative sources might also intentionally withhold specific pieces of information or share only general information in order to avoid revealing too much critical information. For example, a source might reveal that a terrorist attack will take place sometime during the Autumn break, while withholding the specific date (Oleszkiewicz, 2016). This coarse information can be accurate but may not fulfill the information requirements when interviewers are after fine-grained, specific details of information. As those isolated details can be of high value for an interviewer and for national security interests, quality in terms of the value of eliciting a specific piece of information should also be considered. However, up until now, few studies have examined the quality of information as a measure of efficacy and the value of eliciting predetermined, isolated pieces of information in particular. The claim-tactic is a promising tactic to be used to elicit those pieces of information. Therefore, in this study the effect of presenting claims on the elicitation of a specific piece of information will be examined.

Examining the Claim-tactic - The Value of an Incorrect Alternative

Scharff presented correct claims that he sought to get confirmed and incorrect claims that he sought to get disconfirmed. When an interviewer already holds reliable information, the interviewer might assess a claim in which this information is presented as likely to be correct. If the interviewer assessed the likelihood correctly, the source would probably confirm the information presented by the interviewer. Having correct claims confirmed has shown to be successful in providing the interviewer with useful information (Granhag et al., 2016). However, when the interviewer is aimed at filling in information gaps, the interviewer tries to elicit isolated, predetermined pieces of information that are unknown to the interviewer. As a result, the interviewer will not know which alternative is correct when presenting a claim aimed to elicit those unknown details. The chance that the interviewer presents an incorrect claim is, therefore, considerable. Nonetheless, having an incorrect alternative disconfirmed may yield also useful details of information, because the disconfirmation makes another alternative more likely, assuming that the source does not lie when disconfirming the alternative. Presenting incorrect claims can, thus, also be promising in eliciting a specific piece of information. However, previous studies on the claim-tactic did not specifically examine the effect of presenting an incorrect alternative on the elicitation of the isolated, specific piece of information tried to collect with that claim. In the realm of investigative interviewing only one study was found that focused on the effects of presenting incorrect information, which might provide support for the relevance of the present study.

The content of an 'error'. Oostinga, Giebels and Taylor (2017) examined the effect of communication errors in suspect interviews. One type of error interviewers can make during an interview are factual errors, which are referred to as messages that contain an error of fact and are objectively wrong (e.g. mentioning a wrong date or name). Making an error about factual details during an interview had a positive effect on the amount of information shared by the source. Being faced with a factual error, the source was prone to correct the mistake made by the interviewer.

However, the content of the error that was studied by Oostinga et al. (2017) reflected relatively less relevant information as the error was about the occupation of the source. That means, the error pertained to the relationship and trust building between the interviewer and source rather than to the core of the interview in which sensitive information about criminal activities was addressed. During a human intelligence gathering interview, the source has to navigate an information management dilemma to not reveal too much or too little information. Presenting incorrect information that is related to this dilemma may have a

different effect on the information retrieved than presenting incorrect information that is related to the relationship between the interviewer and source. It is expected that the source might not correct such an incorrect alternative with the same ease as correcting relatively small errors about marginal related topics, such as the source's occupation.

The number and timing of errors. Besides the content of the error, the number of incorrect claims should be considered. Presenting too many incorrect claims will undermine the 'illusion of knowing it all' and, consequently, might reduce the source's willingness to reveal information (May et al., 2014). To maintain and strengthen the 'illusion of knowing it all', the number of correct claims should be higher than the number of incorrect claims.

Secondly, the timing of the incorrect claim might influence the elicitation of the information contained in that claim, because the willingness of the source to disconfirm the mistaken claim may change depending on when the incorrect claim is presented. For example, sources might be more willing to disconfirm an incorrect alternative when this claim is presented early in an interview, as the source might want to make a good impression and to appear cooperative. Since no research was found that examined this, the current study will examine whether the position of an incorrect claim, in a series of correct claims, affects the elicitation of a specific, isolated piece of information sought after with that claim.

Exploring Different Orders of Claims

To examine the effect of posing an incorrect alternative, three different orders of claims will be manipulated (see Table 1). As the interviewer does not always know which alternative is correct, the total of claims presented will consist of a sequence of both correct and incorrect claims. However, to strengthen the 'illusion of knowing it all', the number of correct claims should be higher than the number of incorrect claims. Therefore, the series of claims that will be used in this study will include two correct claims and one incorrect claim. The focus in this study is on the incorrect claim. It will be explored when that claim should be presented in the sequence to elicit the specific piece of information of that incorrect claim.

The first order starts with the incorrect alternative. The source is first presented with an alternative for which the interviewer does not know the correct answer or that is assessed to be less likely. In the second order the incorrect alternative is preceded by one correct alternative. The source is first faced with an alternative about which the interviewer is relatively certain, resulting in that the alternative is likely to be correct. Then, a less probable alternative is presented, which the interviewer sought to get disconfirmed. In the third order the incorrect alternative is preceded by two correct alternatives. The source is first faced with

two claims that the interviewer tries to have confirmed, after which a claim about previously unknown details is presented.

Here it should be noted that reality is more complex. First, the source might be lying when (dis)confirming a claim. Secondly, and previously mentioned, the interviewer might be mistaken in assessing the likelihood of certain alternatives. That is, the alternative assessed to be less probable might be the correct alternative (Oleszkiewicz, Granhag & Kleinman, 2014).

Table 1

Position of an incorrect claim (D) in a sequence of correct claims (C)

Orders	First claim	Second claim	Third claim
DCC	Incorrect alternative (D)	Correct alternative (C)	Correct alternative (C)
CDC	Correct alternative (C)	Incorrect alternative (D)	Correct alternative (C)
CCD	Correct alternative (C)	Correct alternative (C)	Incorrect alternative (D)

The Present Study

The main objective of this study was to examine the claim-tactic of the Scharff technique regarding the elicitation of a specific, isolated piece of information. More specific, it was examined whether the position of an incorrect claim, within a sequence of correct claims, affected the elicitation of the specific, isolated piece of information sought after with that incorrect claim. That means, when the incorrect claim resulted in a disconfirmation. To this end, four Scharff conditions were examined: a confirmation-only condition and three Scharff confirmation/disconfirmation conditions. For the Scharff confirmation/ disconfirmation conditions, the position of the incorrect claim in the sequence differed for each condition (see Table 1). Moreover, the four versions of the Scharff technique were compared against the Direct Approach. This study advances previous research, because this is one of the first studies that examined the efficacy of the Scharff technique, versus the Direct Approach, regarding the elicitation of a specific piece of information. Moreover, this is the first study that examined a potential order effect of the claims. Because scientific literature about the ordering of claims and the elicitation of a specific piece of information is scarce and therefore no firm hypotheses could be written, this study had an explorative character. Therefore, this study contained explorative predictions, based on logic thinking and previous research on the Scharff technique. Moreover, to replicate previous research and to validate the current study, two hypotheses were included that compared the Scharff technique with the Direct Approach regarding the (perceived) amount of new information revealed.

Replicating Previous Research: Amount of New Information Revealed

Hypothesis 1A: The Scharff technique will result in more new information during the full interview than the Direct Approach.

Hypothesis 1B: The Scharff technique will result in more new information than the Direct Approach as a result of presenting claims versus direct questions.

Hypothesis 1C: The Scharff technique will result in more new information than Direct Approach as a result of the final checklist with which the participants could share additional information.

Previous research consistently found that the Scharff technique elicits more new information than the Direct Approach (e.g. Granhag et al., 2016; May & Granhag, 2016; May et al., 2014;). It is, therefore, predicted that the Scharff technique will outperform the Direct Approach in terms of the amount of new information elicited in total and for both interview phases (phase 1: hypothesis 1B, phase 2: hypothesis 1C). The rationale behind this is twofold. First, sources faced with the Scharff technique need to reveal information beyond what is told by the interviewer to be perceived as cooperative. As a result, the information they reveal will be new. Second, sources faced with the Scharff technique are more likely to misperceive the interviewer's knowledge, due to the 'illusion of knowing it all'- tactic. When they act on the 'it is meaningless to withhold what the interviewer already knows'- counterinterrogation strategy, they may unintentionally reveal new information (Oleszkiewicz, Granhag & Montecinos, 2014).

Hypothesis 2A: Participants in the Scharff conditions will perceive that they revealed significantly *less* new information than they objectively revealed.

Hypothesis 2B: Participants in the Direct Approach condition will perceive that they revealed significantly *more* new information than they objectively revealed.

It is predicted that an interaction effect occurs when relating the objective and perceived amount of new information revealed. The rationale behind this is that the sources interviewed with the Scharff technique will have the illusion that the interviewer holds a fair amount of information. As a result, they will underestimate how much of the information they shared was new. In contrast, sources faced with the Direct Approach, blind to the interviewer's knowledge, will reveal a mix of old and new information, but will think that more of what they revealed was new (May et al., 2014; Oleszkiewicz, Granhag & Kleinman, 2014).

Eliciting a Specific Piece of Information

Explorative prediction 1: The Scharff technique will be more effective in eliciting a specific piece of information than the Direct Approach.

Previous research showed that the Scharff technique outperforms the Direct Approach on several measures of efficacy. Therefore, it is expected that the Scharff technique will also be more effective with respect to the quality of the information. That is, the elicitation of an isolated piece of information. The rationale behind this is that sources might be more willing to respond to claims than to answer questions, as responding to claims may be perceived by the source as a less active form of complicity than answering questions (Oleszkiewicz, 2016).

Explorative prediction 2: Presenting a correct alternative will be more effective in eliciting a specific piece of information than presenting an incorrect alternative.

Previous research found that presenting a correct alternative is more effective in eliciting new information than presenting an incorrect alternative. More specifically, Oleszkiewicz, Granhag and Kleinman (2014) found that 68% of the correct claims resulted in new information, whereas 48% of the incorrect claims payed off. It is therefore expected that a correct alternative is more likely to be confirmed than that an incorrect alternative will result in a disconfirmation. The rationale behind this prediction is that sources might think that they are not revealing much by only confirming information. Faced with a correct claim, sources might be more likely think that the interviewer already knows the details contained in the claim than when they are presented with an incorrect claim. They may, therefore, be more willing to confirm a correct alternative than to disconfirm an incorrect alternative.

Explorative prediction 3: Presenting an incorrect alternative will result more often in a disconfirmation when it is not preceded by a correct alternative compared to when it is preceded by a correct alternative.

Starting with an incorrect alternative might more often result in a disconfirmation than when the incorrect alternative is preceded a by correct alternative. Thus, the order DCC is predicted to be more effective in eliciting a specific piece of information than the order CDC. The rationale behind this is that sources might want to contribute more at the beginning of the interview, in order to appear cooperative. To make a good impression, they might be more

willing to disconfirm the incorrect alternative when presented as the first claim compared to when the incorrect claim is presented as the second claim.

Explorative prediction 4: Presenting an incorrect alternative will more often result in a disconfirmation when it is preceded by two correct alternatives compared to when it is preceded by one correct alternative.

It is predicted that the incorrect claim in the order CCD will be more often disconfirmed than the incorrect claim in the order CDC. The rationale behind this is that presenting correct alternatives will strengthen the 'illusion of knowing it all' (May et al., 2014). This illusion may be strengthened even more when more correct alternatives are presented before an incorrect alternative. Sources faced with more correct alternatives before the incorrect alternative might be more affirmed in their belief that the interviewer has all the information than sources presented with less correct alternatives before the incorrect alternative. As a result, they might be more willing to disconfirm the incorrect alternative.

Moreover, sources will navigate an information management dilemma. They will strive to not reveal too much or too little information. However, they might think that they are not revealing much by confirming correct claims, whereas they might perceive that they are revealing information by disconfirming incorrect claims. Nevertheless, to appear cooperative, sources should reveal some information beyond what the interviewer has told (Granhag et al., 2016). As they might perceive that they are only revealing information with disconfirming claims, they might use the incorrect alternative as a chance to contribute. Moreover, they might perceive the incorrect alternative as their first chance to contribute. The felt need to contribute might increase when sources are faced with more correct alternatives before an incorrect alternative.

Method

Participants

The original sample of participants consisted of 446 participants. The inclusion criteria included a sufficient understanding of the English language and fully completing the survey. As 139 participants did not complete the survey, they were excluded from analyses. The final sample included 307 participants (187 females, 117 males and 3 specified as 'other'). The age of the participants ranged from 15 to 68 years (M_{age} = 25.70, SD = 8.96). The majority of the participants had the German (30.62%) or Dutch (29.97%) nationality. The remaining 39.41% covered other nationalities, e.g. British (11.08%) and American (7.17%). Participants were

recruited via the researcher's own network, advertisements on social media sites (Facebook, LinkedIn and Instagram), survey exchange sites (SurveySwap and Surveycircle), and through the SONA system of the University of Twente. Participants who participated via SONA could earn 0.5 SONA credits. Participants recruited via other ways participated on a voluntary basis. All participants had to agree with the informed consent, provided before starting the experiment. The experiment was set up after receiving ethical permission from the Ethical Committee of the University of Twente.

Design

This study had a between-subject design in which the participants were randomly allocated to one of the four Scharff conditions or the Direct Approach condition. The participants in the Scharff CCC-condition (N = 61) were presented with three correct claims (C). The participants in the other three Scharff conditions faced a sequence of two correct and one incorrect claim (D), but the order differed for each condition. Those three Scharff confirmation/disconfirmation conditions were: the CCD-condition (N = 62), the CDC-condition (N = 58) and the DDC-condition (N = 64). In the Direct Approach condition (N = 62) participants were presented with three direct, open-ended questions. For hypothesis 1 and 2, the dependent variable was the (perceived) amount of new information revealed. For the explorative predictions the dependent variable was the isolated piece of information revealed with a claim/question (i.e. claim/question about the date of the attack).

Materials and Procedure

The online survey tool Qualtrics was used in which the experiment was fully implemented. Furthermore, an audio recording set was used to record the story used to establish the 'illusion of knowing it all' for the Scharff conditions and to welcome the informant in the Direct Approach. The procedure consisted of three phases described below.

Part 1: Background and planning. All participants were provided with a hyperlink to the survey. After agreeing with the informed consent, in which the purpose of the study and the tasks that had to be performed were explained, all participants received identical instructions to play a role as an informant with some knowledge about an upcoming terrorist attack planned by a radical political group. They were provided with background information about that role in the form of a story. They had to imagine that they participated in a robbery in 2018 with three other people. Those three involved got arrested and it is a matter of time that they will be arrested too. Therefore, they want to move out of the country. They were told that they received information from a friend about a radical group that is planning a bomb

attack in Utrecht, in which that friend is also involved. The participants had to imagine that they were planning to reveal information to the police about this bomb attack in exchange to get free conduct out of the Netherlands (see Appendix A for the complete story).

Subsequently, the participants were instructed to consider a dilemma. They were told that they should neither reveal too much information to the police (because it could jeopardize the terrorist group including their friend), nor too little information (because it could jeopardize the acquisition to get free conduct out of the Netherlands). After considering this dilemma, the participants received information about the planning of the upcoming attack involving general information about the terrorist group, the informant's relation with the group and specific details about the bomb attack. In total, the background information included 33 pieces of information of which 10 pieces were known to the interviewer (see Appendix B). The participants were not informed what information was held by the police.

After reading the information, all participants had to complete a memory test to make sure that they remembered specific details of the attack (see Appendix C). The test contained 10 questions about the attack. Participants had to answer all questions correctly before they could continue. If they gave a wrong answer, they got an error message in which the correct answer was given, followed by the following statement: "*Please, make sure you remember this*". After completing the test, the participants were considered to be ready for the interview.

Part 2: The interview. When the interview started, all participants first listened to an introductory audiotape, in which the human intelligence interviewer welcomed the participant and explained the procedure of the interview.

Scharff conditions. Participants in the Scharff conditions started with listening to a pre-recorded interviewer monologue of 4 minutes and 2 seconds (Appendix D). To make sure the participants listened to the full monologue a timer restricted them to continue to the next part of the survey. In this monologue, the interviewer shared the information he held regarding the terrorist attack. The purpose of this interviewer monologue was to establish the 'illusion of knowing it all'. Moreover, the interviewer had a friendly tone, which corresponds to the friendly approach-tactic. Subsequently, the participants were presented with three written claims about the location of the attack, the date of the attack and the type of detonation. The claims about the type of detonation ("*We know that they will detonate the bomb using an app on a cellphone*") and the location of the attack ("*We know that they are going to blow the bomb at the shopping mall 'Hoog Catharijne' in Utrecht*") were always correct. The claim about the date of the attack was correct in the CCC-condition ("*We know that they plan to execute this attack on Saturday 26th of October*") and incorrect in the DCC-,

CDC- and CCD conditions ("*We know that they plan to execute this attack on Monday 21st of October*"). The position of this incorrect claim differed for each Scharff confirmation/ disconfirmation condition. The incorrect claim was presented first in the DCC-condition, second in the CDC-condition and last in the CCD-condition. The participants had to select an answer from a 7-point answer scale, ranging from confirming the claim ("*That is correct*") to disconfirming the claim ("*That is incorrect*"). The options in between the confirmation and disconfirmation options ranged from specific to less specific and included details specific for that claim. An example of an answer scale is shown in Table 2, in which the answer scale for the claim about the date is presented. See Appendix E for all answering options per claim.

Direct Approach condition. Participants in the Direct Approach condition listened to a short introductory audiotape of 9 seconds in which the interviewer welcomed the participant with the following: "*Hi, good thing you called. Take it you are well? Ok, shall we start talking about what we are supposed to talk about?*"

Next, the participants were presented with three written open-ended questions about the date of the attack ("*When are they planning to execute the bomb?*"), the type of detonation ("*What device are they planning on detonating the bomb with?*") and location of the attack ("*Where will the attack take place?*"). The participants had to respond on a 7-point answer scale, ranging from providing the correct answer to providing a wrong answer. In table 2 an example can be found, in which the answer scale of the question about the date of the attack is presented to illustrate the answering options. See Appendix F for all answer scales.

Next, the participants in all conditions were asked the following question: "*Okay, now I have been talking quite a lot. We are also interested in what you want to say about this. Do you want to add some information?*" Next, they received a checklist with the 33 pieces of information that were included in the background information (Appendix B) and were asked to select the pieces of information they wanted to add to the interview, if they wished to do so.

Part 3: Post-interview questionnaire. After the interview, all participants filled in a questionnaire about the interview (Appendix G). Before the questionnaire was provided, the participants were informed that they were not in the role as informant anymore and that they should answer the questions as honest as possible. The questionnaire contained 16 questions about the participant's perception of the interview and the interviewer's objectives, to which they could respond on a 7-point scale. Furthermore, the participants were provided with two questions that contained a checklist with the 33 pieces of information (Appendix B). On one checklist the participants had to select the pieces of information they shared and of which they thought were new (i.e. previously unknown) to the interviewer. On the other checklist the

participants selected the pieces of information they thought the interviewer was holding prior to the interview. Lastly, three demographic questions were asked regarding the nationality, age and gender of the participants. Afterwards, all participants were thanked for participating.

Measures

An isolated details scale was developed to measure the specific, isolated details of information revealed (Table 2). This scale categorized the 7-point answer scale of the claims and questions (Appendix E and F) into a 3-point categorical scale. A piece of information was elicited when the participant confirmed the correct claim, disconfirmed the incorrect claim or answered the open-ended question fully and truthfully. To ensure that all answers were of the same type, the incorrect claims were reversed coded. The most detailed responses (answering options one and two) were coded as 'isolated details elicited'. Those answers provided the interviewer with the isolated details of that claim or question. Answering options three, four and five were coded as 'neutral'. Answering options six and seven were coded as 'no isolated details elicited', because those answers did not collect the specific piece of information. To examine the explorative predictions, the focus was on the isolated details elicited with the claim/question about the date of the bomb attack.

In order to replicate previous research and to compare the Scharff technique with the Direct Approach in terms of the amount of new information revealed (hypothesis 1 and 2) the isolated details scale was used. The answers coded as 'isolated details elicited' were perceived as new information. A new variable was computed by adding all pieces of new information that resulted from the claims or questions. In addition, the final checklist (Appendix C) on which the participant could select the pieces of information they wanted to add to the interview was coded. Of the 33 pieces of information presented in the checklist, the 10 pieces that were known to the interviewer were excluded from the analyses. All remaining pieces were coded as 'new information' when they were selected by the participant. The pieces not selected by the participants were coded as 'no new information'. A new variable was computed by adding all pieces of information selected on the checklist. Both the amount of new information revealed with claims/questions and the final checklist were used to examine the total amount of new information revealed, whereas each variable was independently used to examine the amount of new information revealed for each interview phase.

Table 2

Isolated details scale with answer scale of claim/question about the date of the bomb attack

Isolated details scale	Scharff-technique	Direct Approach
1. Isolated detail elicited	1. That is correct.	Saturday 26th of October.
1. Isolated detail elicited	2. That's what I heard too, but I'm not sure.	I heard something about Saturday 26th of October, but I'm not sure.
2. Neutral	3. All I know is that it will be in that week.	All I know is that it will be in the last week of October.
2. Neutral	4. I only heard it will be sometime late in October.	I only heard it will be sometime late in October.
2. Neutral	5. I haven't really heard anything about that.	I haven't really heard anything about that.
3. No isolated detail elicited	6. I would say that is quite unlikely.	They were talking about some different options.
3. No isolated detail elicited	7. That is incorrect.	*You provide a wrong alternative to mislead the police.

Note: For the incorrect claim the isolated details scale was inverted.

Results

Validating the Online Perceptual Paradigm

Participant motivation. A one-way ANOVA was used to examine the level of motivation to not to share too much or too little information during the interview. The results showed that the participants' motivation did not differ significantly between the conditions, F (4, 306) = 0.67, p = .610, η^2 = 0.009. The mean score for the motivation of all participants was above the midpoint of the 7-point scale (M = 5.29, SD = 1.45).

Perceived interviewer's friendliness. Secondly, it was assessed to what extent the participants perceived their interviewer as friendly. A one-way ANOVA showed a significant difference between the conditions, F (4, 306) = 7.12, p < .001, η^2 = 0.086. A post-hoc Dunnett-t test showed that participants in the Direct Approach condition (M = 4.37, SD = 1.36) perceived their interviewer as less friendly than participants in the CCC-condition (M = 5.44, SD = 1.07), DCC-condition (M = 5.23, SD = 1.24), CDC-condition (M = 5.29, SD = 1.36) and CCD-condition (M = 5.35, SD = 1.37), p < .005.

Perceived difficulty. Furthermore, the extent to which the participants had difficulty with imagining themselves as an informant was examined. A one-way ANOVA showed no significant difference between the conditions, F (4, 306) = 0.48, p = .750, η^2 = 0.006. The mean score of all participants was around the midpoint of the 7-point scale (M = 3.95, SD = 1.77). Secondly, a one-way ANOVA examining the participant's difficulty with understanding the instructions of the study showed that the conditions did not differ significantly, F (4, 306) = 0.05, p = .996, η^2 = 0.001. The mean on the 5-point scale was 2.78 (SD = 1.69).

Perceived use of strategy. A one-way ANOVA showed a significant difference between the conditions regarding the perception that the interviewer was using a strategy, F (4, 306), = 7.63, p < .001, η^2 = 0.09. A post-hoc Dunnett-t test showed that participants in the Direct Approach condition (M = 3.52, SD = 1.41) experienced their interviewer was less using a strategy than participants in the CCC-condition (M = 4.61, SD = 1.44), DCC-condition (M = 4.41, SD = 1.31), CDC-condition (M = 4.71, SD = 1.41) and CCD-condition (M = 4.68, SD = 1.50), p < .005.

Replicating Previous Research: Amount of New Information Revealed

Hypothesis 1A stated that the Scharff technique would result in more new information during the full interview than the Direct Approach. The total amount of new information was retrieved from the answers on the three claims/questions plus the amount of new information retrieved from the final checklist (Appendix B). Table 3 displays the means and standard deviations for the amount of new information revealed with the claims/questions, the final checklist and the total amount of new information revealed.

A one-way ANOVA showed a significant difference between the CCC-condition (M = 7.36, SD = 3.08), the collapsed Scharff confirmation/disconfirmation condition (i.e. combined DCC-, CDC,- and CCD-condition) (M = 7.70, SD = 3.87) and the Direct Approach condition (M = 6.34, SD = 3.32) with respect to the amount of new information revealed during the full interview, F (2, 307) = 3.29, p = .039, η^2 = 0.02. A post-hoc Dunnett-t test showed that the collapsed Scharff confirmation/disconfirmation condition resulted in more new information than the Direct Approach condition, p = .020. However, the Dunnett-t test showed that the CCC-condition did not result in more new information than the Direct Approach condition, p = .197.

Next, for explorative reasons independent t-tests were conducted to compare the DCC-, CDC- and CCD-condition independently with the Direct Approach condition. As shown in Table 4, no significant differences were found between the DCC-condition (M =

7.31, *SD* = 3.43) and the Direct Approach condition. However, both the CDC-condition (*M* = 8.03, *SD* = 4.24) and CCD-condition (*M* = 7.79, *SD* = 3.96) resulted in more new information than the Direct Approach. Thus, hypothesis 1A was partially supported.

Table 3

Means (M) and standard deviations (SDs) for new information revealed with (a) the claims/questions, (b) the final checklist and (c) the total amount of new information

	Claims/direct questions		Final checklist		Total amount of new information	
	M	*(SD)*	*M*	*(SD)*	*M*	*(SD)*
Scharff CCC	1.46	0.89	5.90	2.95	7.36	3.08
Combined DCC, CDC, CCD	1.61	0.90	6.08	3.62	7.70	3.87
Direct Approach	1.27	0.89	5.06	2.89	6.34	3.32

Table 4

Means (M), standard deviations (SDs) and results of independent t-tests with Direct Approach (DA) as control condition on the total amount of new information revealed

	Total new information			Total new information		Results of independent t-tests			
Comparison	*M*	*(SD)*	Control	*M*	*(SD)*	*N*	*df*	*t*	*p*
DCC	7.31	(3.43)	DA	6.34	(3.32)	126	124	1.62	.108
CDC	8.03	(4.24)	DA	6.34	(3.32)	120	118	2.45	.016
CCD	7.79	(3.96)	DA	6.34	(3.32)	124	122	2.21	.029

New Information Revealed for each Interview Phase

Claims/questions. Hypothesis 1B stated that the Scharff technique would result in more new information than the Direct Approach as a result of presenting claims compared to direct questions. A one-way ANOVA showed a significant difference between the CCC-condition (*M* = 1.46, *SD* = 0.89), the collapsed Scharff confirmation/disconfirmation condition (*M* = 1.61, *SD* = 0.89) and the Direct Approach condition (*M* = 1.27, *SD* = 0.89), F (2, 307) = 3.57, p = .032, η^2 = 0.02. A post-hoc Dunnett-t test showed that the collapsed Scharff confirmation/disconfirmation condition resulted in more new information than the Direct Approach condition, p = .019. However, the CCC-condition did not result in more new

information than the Direct Approach condition, $p = .398$.

To further explore these results, independent t-tests were conducted to compare the CCD-, CDC-, and DCC-conditions independently with the Direct Approach condition. The results of the independent t-tests (see Table 5) showed that the CCD-condition ($M = 1.60$, $SD = 0.89$), the CDC-condition ($M = 1.66$, $SD = 0.95$) and the DCC-condition ($M = 1.59$, $SD = 0.89$) all resulted in significantly more new information after the claim/question phase than the Direct Approach condition. Thus, hypothesis 1B was partially supported.

Table 5

Means (M), standard deviations (SDs) and results of independent t-tests with Direct Approach (DA) as control condition on the amount of new information revealed with claims and questions

	New information with claims			New information with questions		Results of independent t-tests			
Comparison	*M*	*(SD)*	Control	*M*	*(SD)*	*N*	*df*	*t*	*p*
DCC	1.59	(0.89)	DA	1.27	(0.89)	126	124	2.02	.046
CDC	1.66	(0.95)	DA	1.27	(0.89)	120	118	2.27	.025
CCD	1.60	(0.89)	DA	1.27	(0.89)	124	122	2.01	.046

Final checklist. Hypothesis 1C stated that the Scharff technique would result in more new information than the Direct Approach as a result of the final checklist with which the participants could share additional information. The results of the one-way ANOVA showed no significant difference between the CCC-condition ($M = 5.90$, $SD = 2.95$), the collapsed Scharff confirmation/disconfirmation condition ($M = 6.08$, $SD = 3.62$) and the Direct Approach condition ($M = 5.06$, $SD = 2.89$) on the amount of new information revealed with the final checklist, $F(2, 307) = 2.18$, $p = .117$, $\eta^2 = 0.01$. Also, a post-hoc Dunnett-t test did not show significant differences between the conditions. However, the difference between the collapsed Scharff confirmation/disconfirmation condition and the Direct Approach condition was close to significant, $p = .069$.

To further explore the tendency found with the Dunnett-t test, independent t-tests were conducted to compare the DCC-, CDC- and CCD-conditions independently with the Direct Approach condition. The results of the independent t-tests (see Table 6) showed that the DCC-condition ($M = 5.72$, $SD = 3.07$) and CCD-condition ($M = 6.19$, $SD = 3.71$) did not

result in significantly more new information than the Direct Approach. However, the CDC-condition (M = 6.38, SD = 4.08) resulted in significantly more new information than the Direct Approach condition. Thus, partial support was found for hypothesis 1C.

Table 6

Means (M), standard deviations (SDs) and results of independent t-tests with Direct Approach (DA) as control condition on the amount of new information revealed with final checklist

	New information with checklist			New information with checklist		Results of independent t-tests			
Comparison	*M*	*(SD)*	Control	*M*	*(SD)*	*N*	*df*	*t*	*p*
DCC	5.72	(3.07)	DA	5.06	(2.89)	126	124	1.23	.221
CDC	6.38	(4.08)	DA	5.06	(2.89)	120	118	2.05	.043
CCD	6.19	(3.71)	DA	5.06	(2.89)	124	122	1.89	.062

Replicating Previous Research: Relating Objective and Subjective Measures

Hypothesis 2A stated that participants in the Scharff condition would perceive that they revealed significantly *less* new information than they objectively revealed, whereas hypothesis 2B stated that participants in the Direct approach condition would perceive that they revealed significantly *more* new information than they objectively revealed. A mixed ANOVA with the interview conditions as the between-subjects factor and the new information revealed score (objective and subjective) as the within-subjects factor was conducted. The interview × revealed information interaction showed that the difference between the objective amount of new information revealed and the perceived amount of new information revealed depended on the condition, F (2, 307) = 14.27, $p < .001$, $\eta^2 = 0.09$

The interaction was further analyzed using simple effects tests for each condition. Sources in the CCC-condition perceived they had revealed less new information (M = 3.72, SD = 2.37) than they objectively revealed (M = 7.36, SD = 3.09), F (1, 61) = 64.80, $p < .001$, $\eta^2 = 0.52$. Similarly, sources in the collapsed Scharff confirmation/disconfirmation condition perceived they had revealed less new information (M = 4.35, SD = 2.99) than they objectively revealed (M = 7.70, SD = 3.89), F (1, 184) = 165.69, $p < .001$, $\eta^2 = 0.48$ (Figure 1). Thus, hypothesis 2A was supported.

Contrarily to what was predicted, participants faced with the Direct Approach also

perceived that they revealed less new information (M = 5.53, SD = 3.11) than they objectively revealed (M = 6.34, SD = 3.32), F (1, 62) = 3.92, p = .050, η^2 = 0.06 (Figure 1). Thus, hypothesis 2B was not supported.

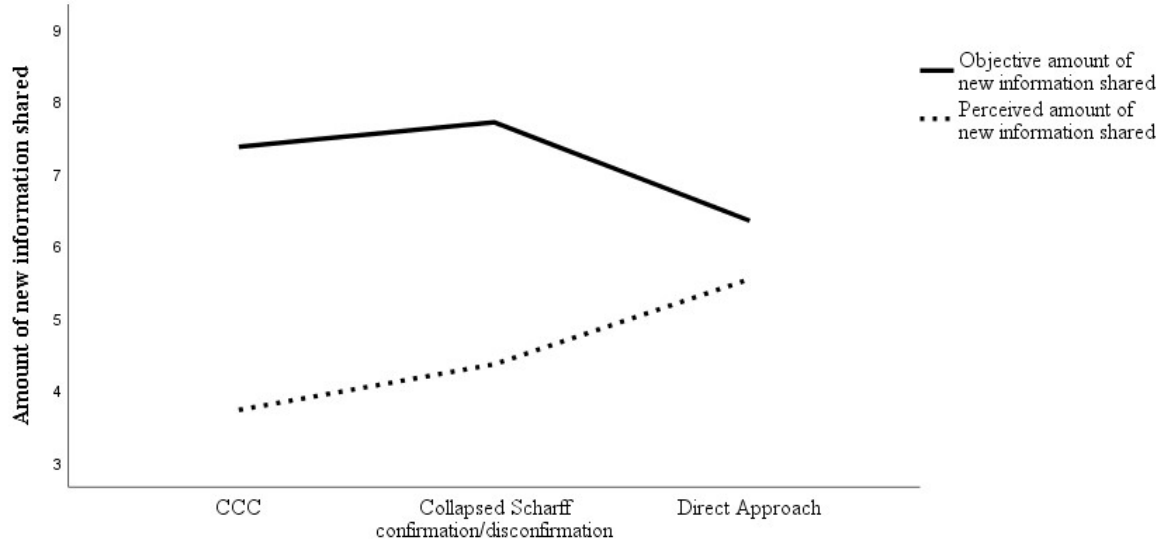

Figure 1. Illustration of the interaction effect for the subjective and objective amount of new information revealed within and between the interview conditions.

Eliciting a Specific Piece of Information

Scharff technique versus Direct Approach. Explorative prediction 1 stated that the Scharff technique would be more effective in eliciting a specific piece of information than the Direct Approach. To examine this, the information elicited with the correct claim about the date of attack of the CCC-condition was compared with the information elicited with the direct question about the date of the attack of the Direct Approach condition. For both conditions, this was the first claim/question.

A Pearson Chi-square test with the isolated details scale of the claim/question about the date of the attack as dependent variable and the condition as fixed factor showed a significant difference between the CCC-condition and the Direct Approach condition, χ^2 (2, N = 123) = 6.36, p = .041. In total, 52% of the participants confirmed the correct claim about the date of the attack in the CCC-condition and, thus, revealed the isolated detail of the date of the attack, whereas 30% of the participants in the Direct Approach condition revealed the date of the attack. Further examining the differences between the answers showed that for the CCC-condition, more participants confirmed the claim than selected a neutral answer. The opposite pattern was visible for participants faced with the Direct Approach, as can be seen in

Figure 2. Participants in the Direct Approach condition were more likely to answer the question about the date in a neutral way than that they provided the interviewer with detail of the date of the attack.

To explore this finding and the rationale behind this prediction, the participants' perception of the interviewer's prior knowledge of the date of the attack was examined. A Pearson Chi-square test compared the CCC-condition and Direct Approach condition on the checklist of the post-interview questionnaire on which the participants could select the pieces of information they thought were known to the interviewer prior to the interview (Appendix B). Regarding the piece of information containing the date of the attack (i.e. 26th of October), there was a significant difference between the CCC-condition and the Direct Approach condition, χ^2 (1, N = 123) = 14.68, $p < .001$. In total, 39.3% of the participants in the CCC-condition and 9.7% of the participants in the Direct Approach condition thought that the interviewer knew the date of the attack prior to the interview.

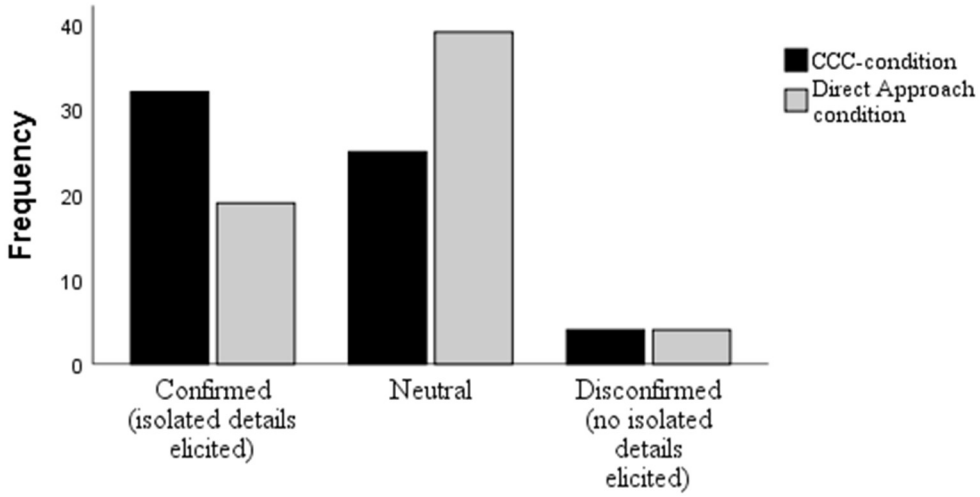

Figure 2. Difference between the CCC-condition and the Direct Approach condition on the isolated details scale with respect to the claim/question about the date.

Next, to examine whether presenting an incorrect claim would also be more effective in eliciting a specific piece of information compared to asking a direct question, the information elicited with the incorrect claim about the date of the attack of the DCC-, CDC-, and CCD-condition were compared with the information elicited with the direct question about the date of the attack of the Direct Approach condition. Pearson Chi-square tests with the isolated details scale of the claim/question about the date of the attack as dependent variable and the condition as fixed factor showed no significant difference between the Direct

Approach condition and either the DCC-, CDC-, or CCD-condition (see Table 7), which indicates that presenting an incorrect claim was not more effective in eliciting a specific detail than asking a direct question. Thus, partial support was found for explorative prediction 1.

For the reason to explore an explanation for this finding, the participants' perception of the interviewer's prior knowledge of the date of the attack was examined. Pearson Chi-square tests (see Table 7) showed that the Direct Approach condition was not significantly different from either the DCC-, CDC- or CCD-condition in regard to the participants' perception whether the interviewer already knew the date of the attack prior to the interview.

Table 7

Results of Pearson Chi-square tests (χ^2) with Direct Approach (DA) as control condition on details elicited with claim/question about the date of the attack and on perception of interviewer's prior knowledge of the date of the attack

		Results of Chi-square tests on details elicited with claim/ question about the date				Results of Chi-square tests on perception of interviewer's prior knowledge of the date			
Comparison	Control	*N*	*df*	χ^2	*p*	*N*	*df*	χ^2	*p*
DCC	DA	126	2	5.57	.062	126	1	2.27	.132
CDC	DA	120	2	5.57	.062	120	1	0.89	.349
CCD	DA	124	2	2.68	.262	124	1	0.09	.769

Correct versus Incorrect Alternatives. In explorative prediction 2 it was predicted that presenting a correct alternative would be more effective in eliciting a specific piece of information than presenting an incorrect alternative. To examine this, Pearson Chi-square tests were conducted to compare the information elicited with the correct claim about the date of the attack of the CCC-condition with the information elicited with the incorrect claim about the date of the attack of each Scharff confirmation/disconfirmation condition. The results of the Pearson Chi-square tests showed that the CCC-condition was not significantly different from either the DCC-, CDC-, or CCD-condition (see Table 8) with respect to the information elicited with the claim about the date of the attack. Thus, prediction 2 was not supported.

Table 8

Results of Pearson Chi-square (χ^2) with CCC-condition as control condition on details elicited with the claim about the date of the attack.

Comparison	Control	*N*	*df*	χ^2	*p*
DCC	CCC	125	2	1.49	.476
CDC	CCC	119	2	0.61	.763
CCD	CCC	123	2	0.98	.612

Ordering of claims. Explorative prediction 3 stated that presenting an incorrect alternative would result more often in a disconfirmation when it is not preceded by a correct alternative compared to when it is preceded by a correct alternative. Therefore, the DCC-condition was compared with the CDC-condition regarding the information elicited with the incorrect claim about the date of the attack. A Pearson Chi-square test with the isolated details scale of the incorrect claim as dependent variable and the condition as fixed factor showed no significant difference between the DCC-condition and the CDC-condition, χ^2 (2, N = 122) = 0.19, p = .912. For explorative reasons, the DCC-condition was also compared with the CCD-condition, but the Pearson Chi-square test showed also no significant difference between these conditions, χ^2 (2, N = 126) = 0.89, p = .614. Thus, explorative prediction 3 was not supported.

Furthermore, in explorative prediction 4 it was predicted that presenting an incorrect alternative would more often result in a disconfirmation when it is preceded by two correct alternatives compared to when it is preceded by one correct alternative. The Pearson Chi-square test that compared the CCD-condition with the CDC-condition on the isolated details scale of the incorrect claim did not show a significant difference between the conditions, χ^2 (2, N = 120) = 0.64, p = .725. Thus, explorative prediction 4 was not supported.

Discussion

This explorative study advanced previous research by providing one of the very first scientific examinations of the quality of information yield, which is in the current study referred to as the value of eliciting an isolated, critical piece of information for fulfilling information requirements. The main aim was to further examine the claim-tactic of the Scharff technique. Specifically, whether the position of an incorrect claim, in a sequence of correct claims, affected the elicitation of the specific piece of information sought after with

that incorrect claim. Hence, three different orders of the claim-tactic were compared in which the position of the incorrect claim in the series was manipulated. In addition, a Scharff condition with only correct claims was compared with the Scharff conditions with one interspersed incorrect claim in the series of correct claims. Moreover, the four Scharff versions were compared with the Direct Approach. In essence, the position of the incorrect claim had no influence on the elicitation of the specific piece of information sought after with that claim. Nevertheless, this study showed that the Scharff technique was more effective in eliciting a specific piece of information than the Direct Approach when using a correct claim. In addition, the Scharff technique elicited more new information than the Direct Approach when using a mix of both correct and incorrect claims.

Validating the Online Perceptual Paradigm

The results indicated that the online perceptual paradigm was valid. All participants seemed to be motivated to not share too much or too little information and they did not differ in their motivation. Moreover, the friendly approach seemed to be implemented successfully as the participants interviewed with the Scharff technique perceived the interviewer as friendlier than participants who were interviewed with the Direct Approach. With respect to the participants' perceived difficulty of imagining being an informant, no differences between the conditions were found. The results suggest that the participants found it challenging, but not too difficult to imagine oneself as an informant. In addition, the participants perceived the instructions of the study as rather easy to understand. Lastly, the participants faced with the Scharff technique experienced their interviewer was using more a form of a strategy than those who faced the Direct Approach. The participants might have expected to answer direct questions during the interview, as direct questions are more commonly used in interviews.

Replicating Previous Research: Amount of New information Revealed

Contrarily to what was expected, posing only correct claims in the Scharff technique did not result in more new information in total than asking direct questions in the Direct Approach. These two approaches did also not differ when examining the amount of new information for each interview phase. However, when interspersing one incorrect claim in the series of correct claims (i.e., combined CCD-, DCC- and CDC-condition), the Scharff technique resulted in more new information than the Direct Approach when examining the total amount of new information revealed and the amount of new information revealed with the claims versus questions. This contrasts previous work that found that posing only correct claims in the Scharff technique, but not interspersing an incorrect claim in a series of correct

claims, outperformed the Direct Approach with respect to the total amount of new information revealed (Oleszkiewicz, Granhag & Kleinman, 2014).

A closer examination between the Scharff technique with an interspersed incorrect claim and the Direct Approach showed that the Scharff technique with an interspersed incorrect claim resulted in more new information in total, but only when the incorrect claim was (a) presented in between two correct claims or (b) preceded by two correct claims. With respect to the amount of new information elicited with the claims versus questions, the Scharff technique with an interspersed incorrect claim in the series of correct claims resulted in more new information than the Direct Approach, irrespective of when that incorrect claim was presented. However, regarding the amount of new information elicited with the final checklist, the Scharff technique with an interspersed incorrect claim resulted only in more new information than the Direct Approach when the incorrect claim was presented in between two correct claims. These results provide partial support for what was predicted and suggests that the Scharff technique outperforms the Direct Approach on the amount of new information revealed, but only when presenting both correct and incorrect alternatives.

Replicating Previous Research: Relating Objective and Subjective Measures

Previous research found that sources interviewed with the Scharff technique underestimated the amount of new information they shared, whereas sources in the Direct Approach overestimated how much new information they shared (Oleszkiewicz, Granhag & Kleinman, 2014; May et al., 2014). The current study could only partly replicate these findings. The results showed that participants faced with the Scharff technique perceived to have revealed less new information than they objectively revealed. Contrarily to what was expected, this was also the tendency for participants faced with the Direct Approach. Importantly, however, the difference between the subjective and objective amount of new information revealed was larger for the Scharff technique than for the Direct Approach.

A possible explanation for this unexpected finding might be found in the experimental set-up of this study. The participants had to choose answers from a predetermined answer scale, which were relatively short. It is expected that participants would give more elaborate answers in a real-life, face-to-face interview than in an online environment. Especially, when open-ended direct questions are posed in comparison with claims to which participants can respond with only a ‘yes’ or ‘no’. If participants respond more extensively, they may share information that is already known to the interviewer, while they may think that this information is new to the interviewer. Thus, as participants facing the Direct Approach in a

real-life setting may reveal more information, and also more known information, they might be more likely to overestimate the amount of new information they shared than participants facing the Direct Approach in this online perceptual paradigm. In this study participants had less opportunity to unknowingly share pieces of information already held by the interviewer, as they could not answer elaborately. As a result, they might have had a relative good view of what information they shared and, thus, were less likely to overestimate their contribution. All participants may have had the impression that they did not share much new information by providing such relatively short answers, which caused them all to underestimate how much new information they have revealed.

Eliciting a Specific piece of Information

Scharff technique versus Direct Approach. Besides comparing the Scharff technique with the Direct Approach on the quantity of information, the Scharff technique was also compared with the Direct Approach with respect to the quality of information. That is, the elicitation of a specific piece of information. This study showed that the Scharff technique was more effective in eliciting a specific piece of information than the Direct Approach, but only when a correct claim was used to elicit the specific piece of information. The correct claim about the date of the attack, which was presented as the first claim in the sequence, did result in more often having that piece of information elicited compared to the direct question about the date of the attack, also presented as the first question. That means that sources presented with a correct claim were more willing to confirm the correct claim, relative to the willingness of sources interviewed with the Direct Approach to honestly and fully answering the question. This support previous findings that confirming claims might be perceived as a less active form of complicity than responding to direct questions (Oleszkiewicz, 2016). However, this contrasts the results found with respect to the quantity of information yield. The results suggest that an interviewer should present a mix of both correct and incorrect claims to collect a fair amount of new information, but correct claims to elicit a specific, isolated detail of information.

Moreover, the results showed an interesting pattern. Participants interviewed with only correct claims in the Scharff technique were more likely to confirm the correct claim about the date of the attack than to respond in a neutral way. However, participants who were presented with a direct question about the date of the attack were more likely to answer neutrally than providing the interviewer with the isolated details of the date of the attack. This finding may be explained by the results that showed that sources presented with the correct

claim about the date were more likely to think that the interviewer already knew the date of the attack prior to the interview compared to sources presented with a direct question about the date of the attack. As a result, they might have thought they were not revealing much by confirming the correct claim. Sources faced with a direct question were less likely to think that the interview knew the date of the attack, which may have increased their hesitance to provide that specific piece of information. They may have, therefore, chosen to respond in a neutral way. The found difference in the perceived interviewer's knowledge can be attributed to the fact that the Scharff technique build upon the 'illusion of knowing it all', which strengthens the source's perception that the interviewer already holds the information.

Contrarily to what was expected, presenting an incorrect claim was not more effective in eliciting a specific piece of information than asking a direct question, although the difference was close to significant. This can be explained by the results that showed that sources faced with the incorrect claim about the date of the attack and sources faced with the direct question about the date of the attack had a similar perception of the interviewer's prior knowledge about the date of the attack. Both asking a direct question or presenting an incorrect alternative gave the sources more the perception that the interviewer had no knowledge of the date of the attack than that it gave them the perception that the interviewer already knew the date. As sources faced with the incorrect alternative were not more likely to think that the interviewer knew the date prior to the interview, they might not have been more willing to reveal that specific piece of information than sources faced with a direct question.

Correct Alternatives versus Incorrect Alternatives. Besides comparing the effect of presenting claims versus questions on the elicitation of a specific piece of information, it was examined whether there was a difference between correct versus incorrect alternatives with respect to the elicitation of a specific piece of information. It was expected that presenting a correct alternative was more effective in eliciting a specific piece of information than presenting an incorrect alternative. Contrarily to what was expected and in contrast to previous research of Oleszkiewicz, Granhag and Kleinman (2014), the correct alternative about the date of the attack was not more often confirmed than the incorrect alternative about the date was disconfirmed. That means that no support could be found for the rationale that sources are more willing to confirm correct claims than to disconfirm incorrect claims.

Ordering of Claims. With respect to ordering the claims and the position of the incorrect claim in particular, it was predicted that starting with an incorrect alternative would be more effective in eliciting the specific piece of information of that claim than preceding the incorrect alternative with a correct alternative. The rationale behind this was that sources

would be willing to show cooperation at the start of the interview and, therefore, would be more willing to disconfirm the incorrect claim when presented as the first claim than when presented as the second claim. However, starting with an incorrect claim was not more effective than preceding the incorrect claim with a correct alternative. Further exploring the ordering showed that starting with an incorrect alternative was also not more effective than presenting the incorrect claim as the third claim. That means that the incorrect claim was not more often disconfirmed when presented first compared to when presented second or third. This could be due to the fact that there were only three claims presented. The willingness to cooperate might be still prevalent when the second and third claim were presented. Moreover, the claims/questions were directly presented after the interviewer monologue. This contrasts previous research that preceded the claims/question phase with an initial open-ended question. In this initial open-ended question, the source was asked to already share some information (May et al., 2014; Oleszkiewicz, Granhag & Kleinman, 2014; Oleszkiewicz et al., 2017). In the current study, sources had no opportunity to reveal information prior to the claims. As the claims/question phase was their first opportunity to contribute, the sources' might not have differed in their willingness to reveal information and to disconfirm the incorrect claim during this phase, irrespective of when that claim was presented. Starting the interview with an initial open-ended question could have yielded different results.

In addition, it was expected that when more correct claims before the incorrect claim were presented, it would result more often in a disconfirmation of the incorrect claim, because sources might have the feeling that they only contribute to the interview by disconfirming claims. The more correct claims presented before the incorrect claim, the stronger the need to contribute might become. However, no support was found for this rationale as the incorrect claim was not more often disconfirmed when it was preceded by one correct claim compared to when the incorrect claim was preceded by two correct claims. One explanation for this unexpected finding might be that the differences between those conditions were too small. The need to contribute might not be very different for both conditions, as the condition in which the incorrect claim was preceded by two correct claims was presented with only one extra correct claim before the incorrect claim compared to the condition in which the incorrect alternative is preceded by only one correct claim. Moreover, the claims/question phase was the participants' first opportunity to contribute, as there was no initial open-ended question. Starting with an open-ended question might result in a difference between sources with respect to the willingness to share details of information during the claim/question phase and, as a consequence, might yield different results.

Limitations

This study comes with a few limitations. First, some aspects of a human intelligence gathering interview are difficult to mirror in an experimental study, especially in an online experimental set-up used in this study. The current study made use of an online perceptual paradigm in which the participants listened to a pre-recorded interviewer monologue and were subsequently presented with written questions or claims. They had to respond to claims or questions by choosing one of the seven answering options, ranging from fully answering the question or confirming the claim to providing a wrong answer or disconfirming the claim. This method does not simulate a real-life human intelligence gathering interview in all aspects. For example, the participants had to imagine being in an interview rather than being physically in such a situation. They listened to a pre-recorded interviewer monologue without seeing the interviewer and were presented with written, rather than verbal, questions or claims. Moreover, they were limited in their responses as the answering options were predetermined. All those aspects may have reduced the reality of the interview. In contrast to the set-up of this study, an interactive face-to-face experimental set-up is expected to mirror a real intelligence gathering interview more closely and might, therefore, yield different results.

Furthermore, the participants in the current study could take breaks, do other activities simultaneously or might be distracted or disturbed during their participation. Those interferences during participation might have distorted their answers. A more controlled interactive face-to-face experiment may increase the experimenter's control over certain aspects of the interview and might reduce these potential confounders.

On the other hand, the current set-up may hold some benefits over a real-life setting on other aspects relating to examinations. When interviewed face-to-face, sources might be highly aware of subtle cues in the (non)verbal behavior of the interviewer, which can influence their answers. The set-up of this study increased the control over these potential confounders. First, the participants could not see the interviewer, which eliminated a potential distorting influence of non-verbal behavior. Secondly, as the claims and questions were written, the interviewer could not unconsciously influence the source with his intonation. Moreover, there were no subtle differences in the story or intonation of the interviewer, because the interviewer monologue was prerecorded and, therefore, the same for each participant. Furthermore, the online character may have increased the scope of this study in terms of sample size and sample variation, making it a solid starting point for future research.

A second limitation is that this study was based on a community sample. It is assumed that real sources would be more motivated to plan their behavior and use more counter-

interrogation strategies than our community sample (Soufan, 2011, as mentioned in Oleszkiewicz, Granhag & Kleinman, 2014). As the Scharff technique is designed to counteract these counterinterrogation strategies, it is expected that the technique might be even more effective with real sources (Toliver, 1997; Soufan, 2011 as mentioned in Oleszkiewicz, Granhag & Kleinman, 2014; Granhag et al., 2013).

Finally, there are some limitations pertaining to the Scharff technique as such. First, to establish the 'illusion of knowing it all', the interviewer should have some accurate information to share. If not, the Scharff technique might be difficult to use (Oleszkiewicz, Granhag & Kleinman, 2014). However, the far-reaching technological possibilities today make it easier to obtain information. Moreover, the current and previous research showed that only sharing general information without critical details can be sufficient to establish the 'illusion of knowing it all' (Oleszkiewicz, Granhag & Kleinman, 2014). Secondly, sometimes it is a risk to share the information that the interviewer already has about a certain topic. A source who is not in custody could inform the individuals or groups to which the information pertains about what information the police has about them. In addition, criminal networks can deploy false sources to find out what information is held about their group and activities (Oleszkiewicz, Granhag & Kleinman, 2014; Granhag et al., 2013).

Recommendations

Based on the limitations, there are some recommendations for future research. To increase the ecological validity, future research could examine the order effects of the claim-tactic in a more realistic interaction paradigm rather than in an online perceptual paradigm. Conducting research in a controlled experiment in which participants interact with an interviewer in a face-to-face conversation may be perceived as more realistic by the participants, which, in turn, might influence their responses.

In addition, future research could map the degree of specificity of the information elicited by developing an answer scale with answering options that differ in level of detail. That is, framing the answers in such a way that every answering option adds a new detail (e.g. 1. "*I heard that the attack will executed in October",* 2. "*I heard that the attack will be executed during the Autumn break*", 3. "*I heard that the attack will be executed on the 26th of October*", 4. "*I heard that the attack will be executed on the 26th of October during lunchbreak*"). Then, all participants could choose between a range of more or less detailed answers. By using such an answer scale, there is a quantifiable difference between the answering options. This will enable the researcher to differentiate between more and less

specific answers and to make more specific and conclusive comparisons between the conditions. Although this study did not find differences between the conditions on the specific pieces of information yield with the incorrect claim, it is possible that there are differences in specificity between the different conditions when examining the differences on a more detailed level. Moreover, future research could implement an initial open-ended question prior to the claims. Starting with an open-ended question might yield different results in regard to the source's willingness to share details of information during the claim/question phase.

Conclusion

Faced with the threat of terrorist attacks nowadays, there is an emerging need for effective methods for gathering human intelligence. The current explorative study is one of the very first studies that examined the quality of information in terms of the value of eliciting a specific piece of critical information for fulfilling information requirements, besides the quantity of information. Moreover, this is the first study that examined the ordering of the claim-tactic of the Scharff technique. The main objective was to explore whether the position of an incorrect alternative affects the elicitation of the specific piece of information sought after with that claim. In brief, the information retrieved with an incorrect claim did not differ according to when this claim was presented in a series of correct claims. However, this study advanced previous research by showing that the Scharff technique outperformed the Direct Approach with respect to not only the quantity of information, but also the quality of information. That is, the Scharff technique was more effective in eliciting a specific piece of information than the Direct Approach, but only when the piece of information the interviewer aimed to obtain was presented in a correct claim. Moreover, the Scharff technique resulted in more new information than the Direct Approach when a mix of both correct and incorrect claims was presented. In addition, and importantly, participants interviewed with the Scharff technique underestimated the amount of new information revealed. This study supports the Scharff technique as a promising human intelligence gathering technique to elicit specific, isolated pieces of information and to fill in important information gaps. This study may be a valuable starting point for further research on the effectiveness of the Scharff technique to elicit specific, detailed pieces of information.

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Appendix A

Background information

Imagine that economic problems, not caused by yourself, made you participate in the robbery of a cash transport van in the fall of 2018. The actual robbery went fine, but three months ago, the other three involved in the act got arrested. The only one who is still free is you, but you feel that this is only a matter of time. You know where most of the stash (approximately 4,5 million EUR) is kept. You understand that your time is scarce, and you immediately need to get the stash and move yourself and your money out of the country**.** Some time ago you got an idea of how it could all be solved, and briefly, your plan is as follows: Through a close friend, you have come by information that a radical political group in The Netherlands has future plans to perform a bomb attack in Utrecht, around the Autumn break. Your plan is to reveal information about this bomb attack to the special police force (DSI: Dienst Speciale Interventies), and in favour of the information receive free conduct out of The Netherlands. Ten days ago, you contacted the special police (anonymously of course) and carefully asked if there was any interest in talking further about this matter. DSI said that they were very interested in talking more thoroughly with you, and **it is this conversation you are now about to have**.

The group that is planning this bomb attack is called MDA and consists of a loosely assembled network of approximately 10 members. You are a close friend with one of the members, **and you feel some sympathy for the group's opinions**. After a lot of consideration, you have decided to reveal some information about the planned bomb attack to the police. You do understand that it is possible that the police already have some information about the planning—partly because DSI have conducted their own investigations, and partly because you have heard, from your friend, that a few of the members in MDA suspects that their phones have been tapped (but this is nothing they know for certain). In brief, you don't know what the police actually know about the planned attack (or if they know anything at all).

Dilemma

When speaking to the police you should **absolutely not tell them everything you know**. First of all, you have, to say the least, a negative attitude toward the police. Also, if you would reveal everything you know about the planning, it could jeopardize the entire existence of MDA, including your close friend, and might get them convicted for planning a very serious

crime. If you tell too much, there is also an obvious risk that they will find out that it was you who "sold them out," which means that you will be hunted by the entire group (and you are not prepared to go that far). On the other hand, **you cannot reveal too little**, because if you do so, there is a risk that the police won't find your contribution to be significant enough to grant you free conduct out of The Netherlands. In order to be taken seriously, and appear trustworthy, you have to show some degree of goodwill and cooperation. In sum, you need to **find a good balance—neither revealing too much nor too little information**.

In spite of all the effort you have put into thinking this through, you still feel very hesitant about talking to the police at all, but nonetheless, you have decided to give it a try. However, you have not fully decided what specific information (and how much) you will reveal to the police. This decision is partly held open, and you will in some degree allow the development of the upcoming conversation to direct this matter.

Information about the attack

What you know about the planning of the upcoming attack is as follows:

General

You know that the group planning the attack is called MDA, it consists of approximately 10 members and is based in Amsterdam. You also know that the group has been around since 2015 and came to existence as a result of the various immigration riots across the Netherlands in 2015. You know that the group, in cooperation with two Germans, had plans to execute a bomb attack in a conference centre in The Hague in 2016, where a political top meeting was held at the time. But that operation was cancelled due to internal conflicts. This conflict resulted in one of the leading figures of the group, Niek Jansen, leaving MDA.

Your Relationship to MDA

David de Vries, who is your close friend, and Niek Jansen founded MDA. You know the names of most of the members of MDA: Martin, Johannes, Erik, Sara, Peter, Saskia, Lisa, but have no further personal information about them. You know the background of the internal conflict that occurred in The Hague. In brief, Niek Jansen wanted to increase the effect of the attack with human casualties, something the Germans refused to go along with. Since the other members sided with the Germans, this dispute led to Niek leaving MDA. Niek and David are currently bitter enemies, as it was David who introduced the Germans to MDA.

Specific Details about the Upcoming Attack

You know that five persons are working more specifically with the planning of the upcoming attack. Among these five there are two Germans (a male and a female) who are both experts on explosives. You also know that these two German bomb experts participated in the planning of the bomb attack that would have been performed in The Hague (2016), which was cancelled. You know that the main shopping mall 'Hoog Catharijne' in Utrecht is subjected for the planned attack, and you know that the attack will take place on the last weekend of the Autumn break, namely Saturday 26th of October. You also know that the plan is to plant the bomb during lunch time and that the bomb will be detonated at 14.00 o'clock (PM), remotely via an app on a cellphone. The bomb will be placed in a TV, which will be brought for repairs at 12.30 o'clock (PM) The store, Mediamarkt, where the TV will be repaired is centrally located in the mall. You do not know what kind of bomb it is. You do not know where the bomb is located at the moment (or if it is manufactured yet).

Appendix B

Checklist with 33 pieces of information from background information

Group:	Called MDA
Group:	10 members
Group:	Based in Amsterdam
Group:	Founded after immigration riots across NL (2015)
History:	Have planned an attack previously
History:	Have planned a bomb attack in The Hague
History:	Have planned a bomb attack in 2016
History:	The planned attack was cancelled
History:	Cancellation due to internal conflict
History:	Niek Jansen left the group after the internal conflict
Active group:	5 persons are planning the attack
Active group:	3 persons are Dutch
Active group:	2 persons are Germans
Expertise	There are bomb experts
Expertise:	There is one female and one male bomb expert
Expertise:	The Germans are the bomb experts
Area:	Utrecht
Area:	Somewhere in Utrecht city center
Area	Shopping mall in Utrecht
Area:	Shopping mall ‘Hoog Catharijne’ in Utrecht
Bomb placement:	Placed in some kind of apparatus
Bomb placement:	Placed in a TV

Bomb placement: TV brought for repairs

Bomb place: TV brought for repairs at MediaMarkt

Date: Around the Autumn break

Date: Last weekend in October

Date: Saturday 26th of October

Time of detonation: In the afternoon

Time of detonation: In the early afternoon

Time of detonation: At 14.00 o'clock

Detonation type: Remotely

Detonation type: Remotely via an electronic device

Detonation type: Remotely via an app on a cellphone

10 pieces of information held by the interviewer

The group is called MDA

The group was founded in 2015

The group involves 10 members

Niek Jansen left the group due to an internal conflict

Five persons are involved in the upcoming attack

There are bomb experts

There is one female and one male bomb expert

The upcoming attack is happening in Utrecht

The upcoming attack is happening around Autumn break

The bomb will be detonated remotely

Appendix C

Memory test

Where will the attack take place?

- Shopping mall 'Hoog Catharijne' in Utrecht
- Shopping mall 'The Wall' in Utrecht

When will the attack take place?

- First Saturday of October (5th)
- Last Saturday of October (26th)

How will the bomb be detonated?

- Via an app on a cellphone
- Via a self-made electronic device

What is the name of the group who is planning the attack?

- The group is called SDF
- The group is called MDA

How many people are planning the current attack?

- Three people
- Five people

How many of the people involved are Germans?

- None of the people
- Two of the people

Does the group include any bomb experts?

- Yes, the group does include bomb experts
- No, the group does not include bomb experts

Who left the group due to internal conflict?

- Niek Jansen
- Henry Smit

Where will the bomb be planted?

- The bomb will be planted in the MediaMarkt
- The bomb will be planted in the Primark

How will the bomb be concealed?

- In a washing machine
- In a TV

Appendix D

'Illusion of knowing it all' – protocol for Scharff technique conditions

(recorded information)

Hi. How are you?
Okay, well, there is an important reason for you contacting me, but before we start let me point out that I understand you're in a difficult situation, but at the same time you must understand that we cannot accept this bomb attack to take place. As you might understand, we already know quite some things about MDA and their planned attack in Utrecht. So, I was thinking, in order to make this conversation more effective, I hope you don't mind if I start by sharing some of the information we already hold …

We know that you and David are well acquainted, and that you have known each other for quite some time. We also know that it was David who founded MDA together with Niek. Well, but now the times have changed, I am sure that you – as well as us – know that Niek is no longer a part of the group, after all the things that happened in 2016. I guess this was just a matter of time as Niek never managed to get along with the bomb experts anyways.

Fortunately for the group, the other members did not have any problems with the bomb experts. Of what we understand, Niek had a completely different philosophy than the bomb experts, when it comes to what and who to blow up so to speak. Yeah, and it was because of this conflict that their previous plans were cancelled.

Anyway, I understand that you've quite a bit of information about their current plans, but first let me share some of the information we hold, without getting too specific. We know that MDA is a political group that was formed in 2015 and that they consist of approximately 10 members. We also know that not everyone will be involved in the actual execution of the attack. We understand that the purpose of the attack is to create political headlines for their cause, which will become quite dramatic as they plan to execute this around the Autumn break. As you surely understand, it is of the highest priority for us to prevent this attack, because even if MDA doesn't aim to hurt people, because the time and location of the attack makes it very serious, considering the number of people considering the amount of people running around during the holidays.

Okay, if I should get more to the point, we know that five persons are involved in the current planning, which of course, includes the man and the women … yeah the two bomb experts who are essential in running this difficult operation and they plan to build a bomb that will be triggered from a distance via a remote detonator. We also know that they will want to avoid human casualties this time around, as this is more or less a condition for the people left in the group – However, I do believe they have underestimated the actual risk here, the risk to injure, or even kill people with this attack. I mean, it is quite clear that they will not be able to avoid making considerable collateral damage.

Well yes, this is some of the more information we hold. And I hope that I didn't make you uncomfortable by taking the decision to take the initiative in this conversation. And I want to once again point out that I am aware of the situation that you are in, and understand that you feel threatened. But I hope you understand that I have no plans to sell you out and I guarantee to you that your identity and involvement will remain completely confidential. So, after you have heard some of the things we already know, you probably understand that we already possess information that is of direct value for us… But we are of course interested to hear what you know.

Appendix E

Scharff conditions – interview protocol with answering options

CCC-condition (only correct claims)

Claim 1: "*We know that they are planning to execute this attack on Saturday 26th of October*"

1. That is correct
2. That's what I heard too, but I'm not sure
3. All I know is that it will be in that week
4. I only heard it will be sometime late in October
5. I haven't really heard anything about that
6. I would say that is quite unlikely
7. That is incorrect

Claim 2: "*We know that they are going to blow the bomb at the shopping mall 'Hoog Catharijne' in Utrecht*"

1. That is correct
2. That's what I heard too, but I'm not sure
3. All I know is that it is a shopping mall
4. I only heard something about a shopping mall
5. I haven't really heard anything about that
6. I would say that is quite unlikely
7. That is incorrect

Claim 3: "*We know that they will detonate the bomb using an app on a cellphone*"

1. That is correct
2. That's what I heard too, but I'm not sure
3. All I know is that it is a common electronic device
4. I only heard it will be in something electronic
5. I haven't really heard anything about that
6. I would say that is quite unlikely
7. That is incorrect

CCD-condition (correct claim, correct claim, incorrect claim)

Claim 1: "*We know that they will detonate the bomb using an app on a cellphone*"

1. That is correct
2. That's what I heard too, but I'm not sure
3. All I know is that it is a common electronic device
4. I only heard it will be in something electronic
5. I haven't really heard anything about that

6. I would say that is quite unlikely
7. That is incorrect

Claim 2: "*We know that they are going to blow the bomb at the shopping mall 'Hoog Catharijne' in Utrecht*"

1. That is correct
2. That's what I heard too, but I'm not sure
3. All I know is that it is a shopping mall
4. I only heard something about a shopping mall
5. I haven't really heard anything about that
6. I would say that is quite unlikely
7. That is incorrect

Claim 3: "We *know that they plan to execute this attack on Monday 21st of October*"

1. That is correct
2. That's what I heard too, but I'm not sure
3. All I know is that it will be in that week
4. I only heard it will be sometime late in October
5. I haven't really heard anything about that
6. I would say that is quite unlikely
7. That is incorrect

CDC-condition (correct claim, incorrect claim, correct claim)

Claim 1: "*We know that they are going to blow the bomb at the shopping mall 'Hoog Catharijne' in Utrecht*"

1. That is correct
2. That's what I heard too, but I'm not sure
3. All I know is that it is a shopping mall
4. I only heard something about a shopping mall
5. I haven't really heard anything about that
6. I would say that is quite unlikely
7. That is incorrect

Claim 2: "*We know that they plan to execute this attack on Monday 21st of October*"

1. That is correct
2. That's what I heard too, but I'm not sure
3. All I know is that it will be in that week
4. I only heard it will be sometime late in October
5. I haven't really heard anything about that
6. I would say that is quite unlikely
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Claim 3: "*We know that they will detonate the bomb using an app on a cellphone*"

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2. That's what I heard too, but I'm not sure
3. All I know is that it is a common electronic device
4. I only heard it will be in something electronic
5. I haven't really heard anything about that
6. I would say that is quite unlikely
7. That is incorrect

DCC-condition (incorrect claim, correct claim, correct claim)

Claim 1: "*We know that they plan to execute this attack on Monday 21st of October*"

1. That is correct
2. That's what I heard too, but I'm not sure
3. All I know is that it will be in that week
4. I only heard it will be sometime late in October
5. I haven't really heard anything about that
6. I would say that is quite unlikely
7. That is incorrect

Claim 2: "*We know that they are going to blow the bomb at the shopping mall 'Hoog Catharijne' in Utrecht*"

1. That is correct
2. That's what I heard too, but I'm not sure
3. All I know is that it is a shopping mall
4. I only heard something about a shopping mall
5. I haven't really heard anything about that
6. I would say that is quite unlikely
7. That is incorrect

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3. All I know is that it is a common electronic device
4. I only heard it will be in something electronic
5. I haven't really heard anything about that
6. I would say that is quite unlikely
7. That is incorrect

Appendix F

Direct approach condition – interview protocol with answering options

Question 1: *"When are they planning to execute the bomb?"*

1. Saturday 26th of October
2. I heard something about Saturday 26th of October, but I'm not sure
3. All I know is that it will be in the last week of October
4. I only heard it will be sometime late in October
5. I haven't really heard anything about that
6. They were talking about some different options
7. *You provide a wrong alternative to mislead the police

Question 2: *"What device are they planning one detonating the bomb with?"*

1. A cellphone
2. I heard something about a cellphone, but I'm not sure
3. All I know is that it is a common electronic device
4. I only heard it will be in something electronic
5. I haven't really heard anything about that
6. They were talking about some different options
7. *You provide a wrong alternative to mislead the police

Question 3*:* *"Where will the attack take place?"*

1. At the shopping mall 'Hoog Catharijne 'in Utrecht
2. I heard something about shopping mall 'Hoog Catharijne' in Utrecht, but I'm not sure
3. All I know is that it is a shopping mall
4. I only heard something about a shopping mall
5. I haven't really heard anything about that
6. They were talking about some different options
7. *You provide a wrong alternative to mislead the police

Appendix G

Post-interview questionnaire

1. If you think back to the conversation, how much of the total information did you share with you contact person? (circle the number which represents your own perception)

No information	1	2	3	4	5	6	7	All the information

2. How much information do you think your contact person had about the attack prior to your conversation?

Very little information	1	2	3	4	5	6	7	A lot of information

3. What specific information regarding the attack did you perceive as your interrogator knowing prior to your interrogation? Select the alternatives that describe the information you perceived your interrogator as already knowing prior to your interrogation. It is important that you select only the alternatives you are sure your interrogator already knew (you can select multiple answers). ***This information will be compared to what the interrogator actually knew prior to the interrogation.***

Appendix B was provided.

4. Of all the information you shared, how much of it do you think was completely new information to you contact person?

Nothing was completely new	1	2	3	4	5	6	7	All of it was completely new

5. Which of the information *you shared* during the entire interview do you think was completely new to the interrogator? Select the alternatives that describe the information you have shared of which you think was completely new to your interrogator (you can select multiple answers)

Appendix B was provided.

6. To what extent was it easy/difficult for you to understand the specific information your contact person was after?

Very easy to understand	1	2	3	4	5	6	7	Very difficult to understand

7. Please, **make a top 3** of the topics you think your interrogator wanted to know most. Assign the number 1 to the information you think the interrogator was most interested in.

- o Nationality of the bomb experts
- o Date of the attack
- o Name of the group
- o Location of the attack
- o Amount of people who are planning the attack
- o Involvement of bomb experts
- o Detonation type
- o Internal conflict in the group
- o How bomb is concealed
- o Location where group is based

8. To what extent did you perceive your contact person as friendly?

Not pleasant at all	1	2	3	4	5	6	7	Very pleasant

9. How nervous were you during the conversation?

Not nervous at all	1	2	3	4	5	6	7	Very nervous

10. How motivated were you to complete your "mission" (i.e. keeping the balance between not sharing too much/too little information with your contact person)?

Not motivated at all	1	2	3	4	5	6	7	Very motivated

11. In comparison to what you had initially planned, did you give more or less information during the actual conversation (than planned)?

Less information	1	2	3	4	5	6	7	More information

12. If you gave your interrogator false information (or ended up saying something wrong), please indicate on which topic you gave false information and explain what made you do that.

- o I did not give false information
- o I gave false information, please name the topic and reason
  …….

13. To what extent are you pleased with your own efforts during the interview?

Not pleased at all	1	2	3	4	5	6	7	Very pleased

14. How difficult did you think it was to understand the instructions of the study?

Not difficult	1	2	3	4	5	6	7	Very difficult

15. How difficult was it to put yourself in the role of an informant?

Not difficult	1	2	3	4	5	6	7	Very difficult

16. To what extent did you experience your contact person using a form of tactic (strategy) during the conversation?

Very low degree	1	2	3	4	5	6	7	Very high degree

Finally, we would like to know some demographic information about you.

What is your nationality?
……

What is your gender?

- o Male
- o Female
- o Other

What is your age?
……