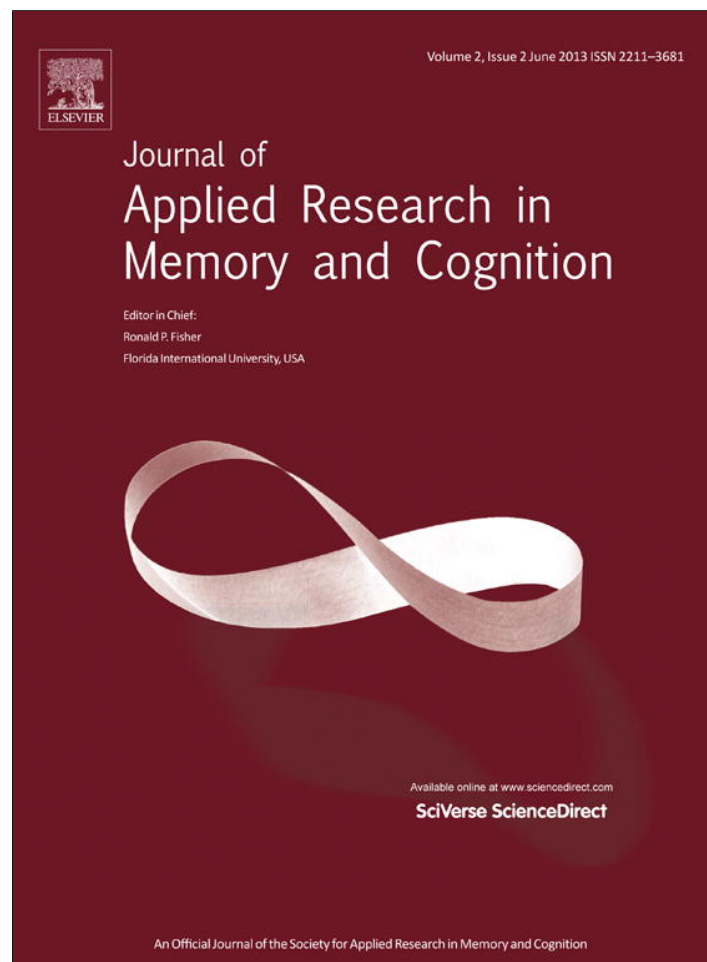


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Obtaining guilty knowledge in human intelligence interrogations: Comparing accusatorial and information-gathering approaches with a novel experimental paradigm[☆]



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ABSTRACT

Substantial research has assessed interrogations seeking to obtain a criminal confession, and consequently much has been learned regarding the potential problems with confession evidence. However, an increasing focus on counter-terrorism, and therefore intelligence interrogations, reveals an obvious gap in the literature. Intelligence interrogations are primarily focused on collecting information from individuals as opposed to a confession linked to an alleged event, and little of the extant psychological literature can speak directly to such a scenario. The current research developed an experimental paradigm to test interrogation approaches in an intelligence-gathering context, providing a method for gathering empirical data on human intelligence collection. In the first implementation of this paradigm, accusatorial and information-gathering interrogation strategies were tested using a procedure high in psychological realism. Results indicate that an information-gathering approach yields more relevant information than an accusatorial approach and leads to more diagnostic impressions by third party observers.

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1. Obtaining guilty knowledge in human intelligence interrogations: comparing accusatorial and information-gathering approaches with a novel experimental paradigm

The extant research literature on interrogations in the law enforcement context (henceforth, forensic interrogations), primarily driven by the many confirmed cases of false confessions over the last 20 years (see www.innocenceproject.org), has developed substantially since the early 1990s. In addition to case studies and observational studies (e.g., Drizin & Leo, 2004; Leo, 2008), the research investigating forensic interrogations includes experimental studies evaluating interrogation techniques that may produce

true and false confessions (e.g., Kassin & Kiechel, 1996; Russano, Meissner, Narchet, & Kassin, 2005) and individual difference factors that make certain people more susceptible to interrogative pressure (e.g., Redlich & Goodman, 2003; for reviews of this research, see Kassin et al., 2010; Kassin & Gudjonsson, 2004; Lassiter & Meissner, 2010).

In contrast to our developing knowledge on forensic interrogations, there is a distinct lack of available research on information gathering in a human intelligence (HUMINT) context (Evans, Meissner, Brandon, Russano, & Kleinman, 2010; Justice, Bhatt, Brandon, & Kleinman, 2008). Although one might expect much of the available research on forensic interrogations to be applicable to the HUMINT setting, there are several distinctions between the two contexts that may limit its applicability. One key distinction relates to outcome metrics - while forensic interrogations are engineered to secure a confession (Leo, 2008), HUMINT interrogations seek actionable information relating to an event or organization (Evans et al., 2010). Furthermore, while forensic interrogations generally target individuals suspected of having committed illegal acts, the targets of HUMINT interrogations range from high-value individuals responsible for (potential) terrorist incidents to individuals not directly involved in any wrongdoing but possibly possessing knowledge of critical information. Given such important

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differences, the extent to which research in forensic interrogation contexts translates to HUMINT contexts requires empirical investigation. Furthermore although headlines about controversial interrogation methods in HUMINT settings have stirred debate in the United States, there is currently no systematic experimental research on interrogations in this context to support the use of specific ethical, evidence-based approaches.

Experimental tests of forensic interrogation techniques have focused on those believed to lead to false confessions, such as the presentation of false evidence (Kassin & Kiechel, 1996; Perillo & Kassin, 2011), minimization and maximization approaches (Klaver, Lee, & Rose, 2008; Russano et al., 2005), and the role of perceived consequences associated with confession (Horgan, Russano, Meissner, & Evans, 2012; Horselenberg, Merckelbach, & Josephs, 2003). The majority of experimental research in the area of interrogations has employed one of two laboratory paradigms (or slight variations thereof). In Kassin and Kiechel's (1996) procedure, participants are falsely accused of hitting a "forbidden" key during a typing task. As this procedure allowed for the examination of false (but not true) confessions, Russano et al. (2005) developed a paradigm that incorporates a guilt-innocence manipulation. Participants are set up by a confederate to be innocent or guilty of sharing information on a task and are later accused of academic dishonesty by the experimenter. Thus, the Russano et al. paradigm permits the examination of both true and false confessions within a context high in psychological realism. However, in both of these paradigms, the primary outcome measure is provision of a confession statement, limiting the applicability of research with this paradigm to HUMINT contexts.

1.1. Accusatorial versus information-gathering interrogation approaches

Recent research regarding forensic interrogations has assessed the relative effectiveness of accusatorial methods (used in the United States) and information-gathering methods (developed in the United Kingdom) in eliciting true and false confessions (Meissner, Hartwig, & Russano, 2010a; Meissner, Russano, & Narchet, 2010b; Meissner, Redlich, Bhatt, & Brandon, 2012). Accusatorial methods are often employed when the interrogator believes the suspect to be guilty. Thus, they are confession-oriented and designed to manipulate suspects' perceptions regarding the consequences of confession and develop themes that encourage confession. In contrast, over the last several decades law enforcement in the UK have moved to a less confrontational (Kassin et al., 2010) information-gathering approach (Shawyer, Milne, & Bull, 2009) in which investigators take a more neutral role by probing suspects using open-ended questions and developing conversational rapport with the goal of truth-seeking (Milne & Bull, 1999). Meissner et al. (2012) highlight several key differences between the two approaches. Information-gathering methods seek to establish rapport, use direct positive confrontation, use open, exploratory questions, and aim to obtain information. In contrast, accusatorial methods seek to establish control, use psychological manipulation, use closed/confirmatory questions, and aim to obtain a confession.

Meta-analytic comparisons of these two techniques in field studies (Meissner et al., 2012) indicated that both accusatorial and information-gathering approaches lead to a greater frequency of confessions (versus control). However, the veracity of the confessions cannot be determined in such studies. In contrast, meta-analytic comparisons in laboratory studies (Meissner et al., 2012) suggested that (a) accusatorial interrogations (versus control) lead to more true and false confessions, (b) information-gathering interrogations (versus control) lead to more true but not false confessions, and most importantly, (c) information-gathering interrogations (versus accusatorial) lead to more true

confessions and fewer false confessions. However, Meissner et al. highlighted the need for additional research comparing these techniques, – only five field studies and 12 experimental studies were found that met the selection criteria to be included in the meta-analysis, and comparisons with an information gathering condition included only three studies. The current study seeks to add to this research literature by experimentally comparing accusatorial and information-gathering approaches, with a focus on measures of information gain in a HUMINT-relevant paradigm (as opposed to confession rates, as examined in previous studies).

1.2. The current study

A novel experimental paradigm (described in detail below) designed to model the contextual and psychological factors relevant to the HUMINT interrogation context was used to test the relative efficacy of accusatorial and information-gathering interrogative approaches. A critical element of this paradigm is the relatively elaborate transgression (as compared to previous research). This allowed for information gain, not simply confession provision, to be used as an outcome metric. Consistent with the Meissner et al. (2012) meta-analysis, we predicted that information-gathering methods would yield more relevant information and admissions relative to accusatorial methods.

In addition, the current study evaluated third party observers' perceptions of interrogator and interviewee behavior. Previous research explored whether or not interrogator beliefs could influence the way a suspect's behavior is perceived. For example, Kassin, Goldstein, and Savitsky (2003) compared participants' perceptions of mock suspects as a function of the interrogator's expectation of guilt or innocence. Observers rated mock suspects in the guilty expectation condition as more defensive than those in the truth expectation condition. Given that interrogators' beliefs can lead interviewees to behave in a way consistent with their beliefs (see also Meissner & Kassin, 2002; Meissner & Kassin, 2004), we hypothesized that the approaches employed by interrogators may also influence how interviewees behave. For example, someone who is confronted in an accusatorial, guilt-presumptive manner may react to that treatment in a way that is interpreted as deceptive or guilty (e.g., become anxious, less cooperative), regardless of actual guilt. Thus, we predicted that behavioral judgments for interrogations conducted in an information-gathering style would produce judgments more diagnostic of "guilt" when compared with interrogations conducted in an accusatorial style.

2. Method

2.1. Participants

2.1.1. Interrogation phase

Psychology undergraduates ($n = 103$) were recruited to participate in a study described as a "Trivia Challenge" in exchange for research credit in a psychology course and the opportunity to earn up to \$10. The majority of the participants were female (58%) and Hispanic (88%), with a mean (and median) age of 19.

2.1.2. Observation phase

Psychology undergraduates ($n = 126$) were recruited and participated in exchange for research credit. The sample was mostly female (55%) and Hispanic (79%), with a mean age of 21 (median = 19).

2.2. Design and procedure

A 2 (interrogation approach: information-gathering vs. accusatorial) \times 2 (culpability: guilty vs. innocent) between-participants factorial design was employed, with participants

randomly assigned to condition. The procedure was adapted from Russano et al. (2005), aiming to capture critical elements of a HUMINT interrogation with a detained individual believed to have knowledge of events of interest, but with unknown personal involvement. This procedure allows the manipulation of whether or not an interviewee possesses relevant knowledge, and it assesses outcome metrics related to information gain. Further, the paradigm maintains a high degree of psychological realism, with participants' believing they are being questioned about their potential involvement in a deliberate transgression.

A female confederate and the participant (hereafter referred to as "the participants") arrived at the lab and were instructed to leave all belongings, including cell phones, in the main lab area. The participants were then seated in a small windowless room discretely wired for audio and video recording. The participants were informed that: the study was a national assessment of college students' knowledge; they would be asked to answer 20 general knowledge questions as a pair; they would each receive 50 cents for every correctly answered question; and they should complete the questions together using no other resources. Note that the use of deception regarding the study's true purpose was critical to achieve an appropriate level of psychological realism. The study's true nature was fully revealed during the debriefing stage. After signing a consent form and providing demographic information, the participants received the 20-item test (e.g., What is the capital of Hungary?), and they were left alone in the room to complete the task.

2.3. Culpability manipulation

2.3.1. Guilty participants

The confederate's script began with her explaining that her roommate, Maria, had already completed the study. She then retrieved a paper from her pocket with 20 handwritten questions and answers, which Maria had allegedly provided. She used this "cheat sheet" to answer 10 of the assigned questions and noted that the remaining 10 questions did not correspond with the copied questions. Upon realizing the cheat sheet did not answer all of the questions, the confederate called "Maria" using the cell phone in her pocket and received answers to two questions after Maria "googled" them. Finally, the confederate copied down the questions missing from the cheat sheet for her friend, Alex, who she claimed would be completing the study the following week. The participants ultimately completed the questions and submitted them to the experimenter.

2.3.2. Innocent participants

The confederate followed a similar script in which she indicated Maria had said that the study was "easy". When the questions were more challenging than expected, the confederate retrieved her cell phone and called Maria to complain that the questions were unexpectedly difficult. She neither requested, nor received, any answers to the questions. Thus, she did not cheat, but she did break an experimental rule by having, and using, her cell phone. After the phone call, the confederate mentioned that her friend Alex would be unhappy the study was so difficult.

2.3.3. Interrogation phase

After completing the questions, the participants were separated, purportedly so that an experimenter could review their answers with them individually. The confederate was removed, and the participant was told to wait until someone returned. After five minutes, the interrogator entered the room and began a scripted interrogation of the participant. All interrogation sessions were covertly audio and video-recorded. The interrogator explained that because so many questions were answered correctly, s/he became

suspicious that cheating had occurred. The interrogator explained that the professor in charge of the study instructed him/her to speak with both participants to determine what happened, and indicated that if any cheating had taken place the professor might consider it a case of academic dishonesty. S/he also explained that after talking to the participant, s/he would talk to the other participant. At this point the scripts differed depending upon the assigned condition. All interrogators were kept blind to the participant's culpability condition and to the hypothesized influence of the interrogation methods.

2.3.4. Accusatorial script

The interrogator used a combination of maximizing and fear-based approaches (e.g., "I want you to know that it's not looking good for you guys. This has the potential to be a really big deal since this is a national project. . .") and comforting, emotionally manipulative, minimizing approaches (e.g., ". . .if you are honest, that will probably go a long way, and show my professor that you feel bad about what happened. That's what I would do."). This approach was designed to play upon the participants' anxiety and manipulate their perceptions of the consequences of admitting versus denying that rule-breaking took place.

2.3.5. Information-gathering script

The interrogator took a truth-seeking, information-gathering approach (e.g., "Please take a minute to try and remember exactly what happened. . . I really need to get to the bottom of this. . .") and employed elements of the cognitive interview (Fisher & Geiselman, 1992). For example, the rules of the questioning were laid out (e.g., "I'm going to try not to interrupt you, since you're the one with the information, not me."). After soliciting information from the participants via free recall, interrogators asked participants to explain what happened from the confederate's perspective. In contrast to the accusatorial script, this script was designed to be cognitively challenging, making it more difficult to lie and also increasing the number of details likely to be recalled.

2.3.6. Closing the interrogation

At the end of the interrogators' scripted monologues, all participants were asked "So, did you guys cheat?" This was followed by four opened-ended questions designed to obtain as many details as possible (e.g., "Why don't you tell me the whole story," "Is there anything else you can tell me?"). The last of these was "Okay, I'm going to go and speak with the other person now. Is there anything else you'd like to add to what you've said so far?" The interrogator then thanked the participant and left the room.

2.4. Debriefing

Following the interrogation, the experimenter entered the room immediately to debrief the participant. For all participants, this involved (a) probing for suspicion, (b) explaining the deception involved in the study and that the session had been recorded, (c) asking the participant to complete a debriefing questionnaire regarding his/her experiences in the study, (d) offering the participant the option to sign a new consent form permitting the researchers to use their data and recorded interview, (e) discussing the importance of keeping the procedures and deception employed by the study confidential, and (f) paying participants \$10 for completing the study. The experimenter's goal during debriefing was to ensure that the participants understood that they were not in any trouble, were comfortable with what happened, and understood why the use of deception was necessary.

Table 1
Information gain and admissions as a function of culpability and interrogation approach.

Condition		Number of details (0–15)		Interrogation Length in seconds		Proportion admit Confederate had phone		Proportion Admissions (guilty only)	
Approach	Culpability	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Info-gath.	Innocent	3.08	2.78	212.32	112.68	0.64	0.49	0.64*	0.30
	Guilty	5.70	1.95	202.57	173.71	0.95	0.22		
	Total	4.22*	2.76	208.53*	137.29	0.78*	0.42		
Accusatorial	Innocent	2.25	2.49	112.63	74.47	0.50	0.51	0.45*	0.32
	Guilty	4.41	2.51	107.50	34.32	0.58	0.50		
	Total	3.43*	2.71	109.87*	55.95	0.55*	0.50		
Total	Innocent	2.67 [†]	2.65	160.30	106.28	0.57	0.50	0.53	0.32
	Guilty	4.94 [†]	2.37	139.19	111.40	0.73	0.45		
	Total	3.81	2.75	150.23	108.62	0.65	0.48		

Note: The interrogation approach main effect was significant ($ps \leq .05$) for all four measures, as indicated by **. The main effect of culpability was significant for number of details only ($p < .001$), as indicated by [†]. No interactions were significant.

2.5. Observation phase

A 2 (interrogation approach: information-gathering vs. accusatorial) \times 2 (culpability: guilty vs. innocent) mixed factorial design was employed. Participants were randomly assigned to an interrogation approach and watched videos of both interviewees with and without guilty knowledge. Participants were instructed that some, but not all, interviewees had guilty knowledge, but they were not given a specific ratio of interviewees with or without guilty knowledge. The amount of information the interviewees disclosed to the interrogator within the videos was controlled for so that the volume of information provided was similar across the two interrogation conditions. In other words, we ensured that it was not the case that the videos chosen for one interrogation approach yielded more guilty knowledge/admissions than videos selected for the second approach. The videos averaged five minutes in length, and participants viewed a series of eight videos. The presentation order was randomized and participants answered several questions about each video following its presentation. These questions addressed six interviewee behaviors (nervousness, cooperativeness, believability, confidence, amount of information provided, and effort exerted), and the amount of pressure placed on the interviewee by the interrogator. All responses were provided on eight-point Likert scales (1 = "Not at all"/"None" to 8 = "Extremely"/"A lot").

3. Results

All means and standard deviations are reported in Table 1.

3.1. Information gain

Two measures of information gain were examined: quantity of relevant details and participant talking time. Both were analyzed via a 2 (guilt vs. innocence) \times 2 (accusatorial vs. information-gathering approach) between-participants ANOVA.

Quantity of details. Two coders scored each interrogation video for the presence of 15 relevant details per participant (lists varied depending on culpability condition). All inter-rater reliability indices were acceptable (for number of details, $r = .96$, $p < .001$; for categorical scoring, Cohen's $\kappa \geq .90$). Therefore, the primary coder's scorings were used for all analyses.

Guilty participants reported more details than innocent participants, $F(1,94) = 22.42$, $p < .001$, $d = .90$, and participants in the information-gathering condition reported more details than those in the accusatorial condition; $F(1,94) = 4.39$, $p = .039$, $d = .29$. The interaction was not significant, $F(1,94) = 0.20$, $p = .653$, $\eta_p^2 < .01$.

Participant talking time (in seconds). There was no culpability effect, $F(1,84) = 0.12$, $p = .733$, $d = .19$; however, participants in the information-gathering condition spent more time talking than those in the accusatorial condition, $F(1,84) = 20.05$, $p < .001$, $d = .94$. Again, the interaction was not significant, $F(1, 84) = 0.01$, $p = .916$, $\eta_p^2 < .01$.

3.2. Admissions.

Presence of phone (all participants). We assessed via logistic regression whether participants admitted to the presence of the phone (a key admission), as a function of their culpability, the interrogation approach, and the interaction term. The overall model was significant; $X^2(3) = 13.31$, $p = .004$. An interrogation approach main effect demonstrated that the information-gathering approach led to more admissions than the accusatorial approach, $B = 2.60$, $wald = 5.64$, $p = .018$. There was no significant culpability effect and no interaction, $B = 0.35$, $wald = 0.39$, $p = .531$, and $B = 2.02$, $wald = 2.66$, $p = .103$, respectively.

Cheating (guilty participants only). Finally, coders scored whether participants admitted to "cheating" elements of the incident. Specifically, they coded whether the participant mentioned (a) the cheat sheet, (b) the other participant receiving answers over the phone, and (c) the other participant copying the questions. Overall, 78% admitted to the cheat sheet, 59% admitted to getting answers on the phone (this is different from admitting a call was made), and 8% admitted that the other participant copied the questions for someone (16% admitted to nothing at all). Predictably, as they were never directly accused of any of these three cheating acts, no innocent participants made any false admissions. The proportion of admissions made was calculated for each guilty participant, and analysis indicated that guilty participants made more admissions in the information-gathering condition than in the accusatorial condition, $t(50) = 2.13$, $p = .038$, $d = .61$.

3.3. Observation phase

An average score was calculated for each of the seven interviewee behavior ratings, as well as the interrogator pressure rating. A 2 \times 2 multivariate analysis of variance (MANOVA) was conducted to determine the effect of culpability (guilt vs. innocence) and interrogation approach (information-gathering vs. accusatorial) on observer ratings. The analysis yielded significant main effects of both culpability, Wilks' $\lambda = .42$, $F(7, 118) = 23.78$, $p < .001$, $\eta_p^2 = .60$, and interrogation approach, Wilks' $\lambda = .84$, $F(7, 118) = 3.31$, $p = .003$, $\eta_p^2 = .16$. The interaction between culpability and interrogation approach was also significant, Wilks' $\lambda = .89$, $F(7, 118) = 2.15$,

Table 2
Behavioral ratings as a function of culpability and interrogation approach.

Condition		Observer ratings of behavior					
		Confidence		Nervousness		Int. pressure	
Approach	Culpability	Mean	SD	Mean	SD	Mean	SD
Info-gath.	Innocent	5.77	1.18	3.54	1.12	4.06	1.38
	Guilty	5.35	1.11	5.04	1.04	4.33	1.29
	Total	5.56	0.96	4.29	0.89	4.20*	1.27
Accusatorial	Innocent	5.74	1.11	4.05	1.40	5.20	1.50
	Guilty	5.26	1.16	5.06	1.27	4.94	1.39
	Total	5.50	0.96	4.55	1.21	5.07*	1.33
Total	Innocent	5.76 [^]	1.14	3.79 [^]	1.29	4.63	1.55
	Guilty	5.31 [^]	1.13	5.05 [^]	1.16	4.64	1.37
	Total	5.53	0.96	4.42	1.07	4.64	1.37

Note: The interrogation approach main effect was significant for interrogator pressure only ($p < .001$), as indicated by **. The main effect of culpability was significant for confidence and nervousness only ($p < .001$), as indicated by [^]. The interaction effects were also significant ($p < .05$) for nervousness and interrogator pressure.

$p = .044$, $\eta_p^2 = .11$. Univariate ANOVAs for each dependent variable were conducted as follow-up tests to the MANOVA. Significant effects were observed in ratings of perceived confidence, nervousness, and pressure to provide information. These effects are discussed below, with means and standard deviations presented in Table 2.

A 2 (culpability) \times 2 (interrogation approach) repeated measures ANOVA revealed that third party observers rated innocent interviewees as more confident than guilty interviewees, $F(1, 124) = 16.68$, $p < .001$, $d = .40$. The interrogation approach main effect was not significant; $F(1, 124) = 0.13$, $p = .719$, $d = .05$, nor was the interaction; $F(1, 124) = 0.09$, $p = .760$, $\eta_p^2 = .001$.

Univariate analyses also revealed that guilty interviewees were rated as more nervous than innocent interviewees; $F(1, 124) = 142.20$, $p < .001$, $d = 1.03$. The interrogation approach effect was not significant; $F(1, 124) = 1.98$, $p = .162$, $d = .24$, but it did interact with culpability; $F(1, 124) = 5.44$, $p = .021$, $\eta_p^2 = .04$. Post hoc t -tests (critical alpha = .025) showed that the difference between nervousness ratings of the innocent interviewees across the two interrogation approaches was significant, with the innocent interviewees being rated as more nervous in the accusatorial condition than the information-gathering condition, $t(1, 62) = 2.27$, $p = .025$, $d = .41$. There were no significant differences in nervousness ratings of guilty interviewees across the two interrogation method conditions, $t(1, 62) < 1$, $p = .924$, $d = .02$.

Finally, univariate analyses also indicated that greater pressure on the interviewee was observed during the accusatorial approach compared to the information-gathering approach $F(1, 124) = 14.22$, $p < .001$, $d = .67$. The culpability effect was not significant $F(1, 124) = .005$, $p = .946$, $d < .01$, but there was a significant interaction, $F(1, 124) = 8.99$, $p = .003$, $\eta_p^2 = .07$. Post hoc t -tests (critical alpha = .025) showed the interaction was similar to that for nervousness ratings. Observers rated the pressure on innocent interviewees in the accusatorial condition as higher than those in the information-gathering condition; $t(1, 62) = 4.42$, $p < .001$, $d = .79$. The effect for guilty participants was similar, but the effect was smaller; $t(1, 62) = 2.56$, $p = .012$, $d = .46$.

4. Discussion

The present research assessed interrogation approach effectiveness within a HUMINT context using a new experimental paradigm. An information-gathering approach yielded more critical details and resulted in a more talkative interviewee than an accusatorial interrogation strategy. Furthermore, a greater frequency of admissions was secured during information-gathering interrogations relative to accusatorial interrogations. Finally, results indicate the information-gathering approach significantly reduces perceived

nervousness on the part of innocent participants when compared with the accusatorial approach. In addition, innocent participants were perceived to have endured significantly less pressure from the interrogator under the information-gathering, as opposed to the accusatorial, approach.

4.1. Practical applications

The current study replicated the previously found superiority of information-gathering approaches (Meissner et al., 2012) using a different metric: information gain as opposed to confession diagnosticity. This suggests that information-gathering approaches may be effective within HUMINT contexts as well as law enforcement settings. While law enforcement agencies in the U.K. currently use this approach (i.e., the PEACE model; Shawyer et al., 2009), U.S. law enforcement agencies have generally continued to rely upon accusatorial approaches (Gudjonsson, 2003). Additional research comparing these two approaches is needed, and we are hopeful that others will seek to test the effectiveness of the information-gathering approach in both forensic and HUMINT contexts, and in both field and laboratory settings.

Similar to findings regarding interrogator expectations (Kassin et al., 2003), our manipulation of interrogation approach influenced how nervous the innocent interviewees were perceived to be, but not how nervous the guilty interviewees were perceived to be. The same pattern was found for impressions of interrogator pressure. Specifically, *innocent interviewees* in the information-gathering condition were perceived as less nervous, and their interrogators were perceived as applying less pressure, compared to the accusatorial method. In contrast, *guilty interviewees* were perceived as equally nervous under information-gathering conditions as accusatorial conditions, and the difference in interrogator pressure across interrogation approaches was smaller for guilty interviewees. These findings may help to explain previous findings that innocent individuals are less likely to provide false admissions under information-gathering interrogation approaches than accusatorial approaches (Meissner et al., 2012).

This pattern of findings suggests there may be different mechanisms at work for guilty versus innocent individuals, such that anxiety for guilty participants may result from their transgression, whereas anxiety for the innocent participants are more likely to result from the interrogation itself (see Narchet, Meissner, & Russano, 2011). As the observers were blind to the culpability condition of the interviewees and unaware of the interrogation approach manipulation, these findings suggest that the information-gathering approach, compared to the accusatorial approach, may create greater observable differences between the

behavior of guilty and innocent interviewees, as well as the behavior of the interrogator.

4.2. Future directions

An important avenue for future research is to modify the paradigm to investigate the provision of false information. The current procedure was specifically developed to assess information gain under optimal conditions for accurate memory reporting (no leading questions, no cued recall, no ambiguous events). For this reason false information was not provided by our participants. However, the paradigm can be easily modified to increase the likelihood of obtaining false information for those researchers interested in information quality.

As with any study taking a first step into a new field, our study has caveats. Chief among these is that no laboratory-based experiment can perfectly simulate a real HUMINT interrogation. In addition to the relatively low stakes used here, our participants – mostly Hispanic, female, students attending a University in the United States – are not representative of the larger population of people who are the subjects of intelligence interrogations worldwide. However, at this time, we have little reason to believe that the underlying processes of interrogation (and resultant effects) would differ systematically for our sample versus that of a more representative sample. Nonetheless, this is an empirical question ripe for future research, and we hope that future research may improve upon our work by creating more applicable scenarios (e.g., considering the role of language, culture, ethnicity) with more representative samples.

This paradigm and the above areas of future research are in line with our goal of advising relevant parties regarding interrogation techniques that will be effective, bringing together our knowledge of the psychology of interrogations with practitioners' knowledge of interrogation technique implementation in the field. It is more useful to approach the issue of interrogations in this manner, as opposed to simply informing practitioners' regarding which techniques should be avoided (see Meissner, Hartwig, et al., 2010a; Meissner, Russano, et al., 2010b). We have taken a first step in researching a HUMINT context within a laboratory setting. Given current military and intelligence operations aimed at combating terrorism, we believe it is imperative that researchers identify effective, evidence-based methods for collecting human intelligence with non-cooperative individuals. For this reason, we hope to see researchers tackle this problem with as much enthusiasm and creativity as they have applied to the problem of false confessions.

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