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Criminal versus HUMINT interrogations:
The importance of psychological science to improving interrogative practice

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Abstract

The discovery of many cases of wrongful conviction in the criminal justice system involving admissions from innocent suspects has led psychologists to examine the factors contributing to false confessions. However, little systematic research has assessed the processes underlying Human Intelligence (HUMINT) interrogations relating to military and intelligence operations. The current article examines the similarities and differences between interrogations in criminal and HUMINT settings, and discusses the extent to which the current empirical literature can be applied to criminal and/or HUMINT interrogations. Finally, areas of future research are considered in light of the need for improving HUMINT interrogation.

Criminal versus HUMINT interrogations:
The importance of psychological science to improving interrogative practice

A growing body of scientific inquiry has begun to assess the diagnostic value of commonly-used interrogation tactics and methods of credibility assessment. For the most part this scientific research has focused on the interrogation of suspects who have been accused of criminal wrongdoing. The basis for this focus stems largely from the many instances of wrongful conviction that have come to light in the Unites States, Great Britain, and Canada. In the U.S. to date, the Innocence Project has assisted in the exoneration of over 230 individuals previously convicted of felony crimes. Estimates from both the Innocence Project and other studies of the wrongfully convicted (cf. Scheck, Neufeld, & Dwyer, 2000) suggest that nearly 25% of such cases involve the elicitation of a false confession or admission of guilt. Drizin and Leo (2004) recently documented 125 cases of proven false confessions in the U.S. Their study underscored the power of confession evidence in the criminal justice system – of those in the sample who went to trial attempting to defend their innocence, over 80% were (wrongly) convicted. These data suggest that everyday interrogation tactics and deception detection strategies used by police investigators yield a disturbing number of false confessions and have a profound effect in leading to wrongful conviction (e.g., Kassin, et al., in press; Russano, Meissner, Narchet, & Kassin, 2005; Vrij, Mann, & Fisher, 2006).

Recently there has been a similar increase in public interest regarding interrogation practices in another context, namely military interrogations. Headlines about controversial methods of information gathering in Guantanamo Bay, Iraq, and Afghanistan have stirred debate among many in the U.S and abroad. However, unlike interrogations in the criminal realm, this public debate has yet to result in any systematic research on interrogations in military or Human Intelligence (HUMINT) settings that might (a) enhance our understanding of interrogation and credibility assessment in the HUMINT setting and (b) support the development of methods that facilitate the gathering of diagnostic information. One reason for the lack of research on interrogations in HUMINT settings may be a failure to recognize that important distinctions exist between criminal and HUMINT interrogation settings (but see Redlich, 2007). We believe the most fundamental distinction is the goal of the interrogation. The goal of a HUMINT interrogation is to obtain reliable information from a source about the past, present, or future which can be used to improve national security and/or further national interests. In contrast, the purpose of a criminal interrogation is generally to acquire evidence which can be presented at trial to obtain the conviction of the guilty party. Ideally this evidence would be a full confession, though any incriminating statements gathered from a guilty party would be considered a success for the interrogator. It is also important to consider that, as the ultimate goal of any investigation is the incarceration of the guilty, any interrogation eliciting statements which might exonerate an innocent person should also be considered successful.

Our assertion that the goal of a criminal interrogation is to elicit a confession requires some qualification. Although this goal appears standard procedure for the vast majority of criminal interrogators in the U.S., we do not believe that this necessarily *should* be the case. Innocent individuals inevitably end up in the interrogation room – hence, this motivation to obtain a confession creates a risk for obtaining false confessions by exposing potentially vulnerable individuals to manipulative interrogative techniques (see Gudjonsson, 2003; Kassin &

Gudjonsson, 2004). Unfortunately, many investigators maintain the mistaken belief that "I do not interrogate innocent people" (Kassin, 2005), and thus their goal during interrogation is believed to be justified. In cases where the interrogator may not be fully convinced of guilt, it seems likely they may still push for a confession because of pressures from outside sources (including supervisors, the media, or prosecutors) and/or the mistaken belief that an innocent individual will not confess. While we argue below that this goal of criminal interrogation is misplaced and potentially harmful to the investigative process, it nevertheless remains the primary motivation of criminal interrogators in the U.S.

Our decision to classify interrogations based on their purpose is not meant to imply that no other reasonable distinctions exist. Our goal here is to compare and contrast the processes, methods, and goals of interrogation in criminal and intelligence settings. This comparison will serve as a basis from which to highlight the usefulness of current knowledge from psychological research, especially that focusing on interrogation in the criminal context. We will also identify important gaps in our knowledge of interrogation, which we hope will motivate new programs of research.

We pause briefly here to note that the authorship of this article (which involved the equal contribution of each individual) includes experimental psychology researchers who have investigated interrogations and confessions in the laboratory and field, a government research psychologist, and a career intelligence officer with extensive experience conducting interrogations and training military and intelligence interrogators. As a team, we sought both to educate one another and to better understand the important similarities and differences between interrogations conducted by the criminal justice and HUMINT communities. We hope that the product of our collaboration will further scientific inquiry on these important issues. It is not our intent to advocate here for any particular tactics or procedures, but instead to emphasize the need for additional research.

Similarities and Differences in Criminal vs. HUMINT Interrogations

While interrogation has been the focus of extensive debate in recent years, a broadly accepted definition has remained elusive. For the purposes of this paper, we define interrogation as follows: *the systematic questioning of an individual perceived by investigators as non-cooperative, within a custodial setting, for the purpose of obtaining reliable information in response to specific requirements*. When an individual resists answering direct questions and/or is believed to be deceptive, interrogators may employ an array of authorized methods of persuasion to obtain the source/suspect's cooperation. Both the validity of such techniques and an interrogator's ability to assess the credibility of the individual being questioned have been the source of research and debate in academic and professional/operational circles (see Gudjonsson, 2003; Kassin & Gudjonsson, 2004).

We note here that our definition is somewhat narrow and purposely does not include common situations, such as the questioning of cooperative sources/suspects or questioning outside of police custody. Other definitions (e.g., Gudjonsson, 2003) may include such interactions in their conceptions of interrogation, and we do not dispute the validity of those definitions. While we are restricting ourselves, in this paper, to interactions in which the interrogator must move the target from an uncooperative state to a cooperative state in order to obtain the information of interest, we have no intention of implying that interactions between

investigators and suspects/sources are always adversarial or that direct questioning is never an effective means of information gathering. In fact, below we discuss the relative effectiveness of information gathering and rapport-based approaches to questioning (see Meissner, Russano, & Narchet, in press).

We briefly outline a generic framework of interrogation that could be used as a basis for discussing important similarities and differences between interrogations conducted in criminal vs. HUMINT settings. We propose that three primary stages exist in any interrogation: (1) a pre-interrogation evaluation of the source/suspect and relevant information/evidence, (2) the interrogation of the individual to extract information, and (3) a post-interrogation assessment of the credibility of the individual and the information elicited. Throughout this manuscript we take-on the perspective of an interrogator, who generally operates on the assumption that the party being questioned does, in fact, have guilty knowledge. At the same time, we note the potential risks to an innocent individual who may be mistakenly put through the interrogation process (see Kassin, 2005).

Generally speaking, the pre-interrogation stage involves identifying the individuals to be questioned, reviewing relevant information or evidence related to the questioning, and assessing level of cooperation. Based upon the available information, an interrogator would then prepare for and conduct an interrogation, attempting to obtain the cooperation of the individual and elicit the information sought. Following the interrogation, the investigator would likely assess the credibility of the information extracted, considering signs of deception elicited during questioning and conducting further investigation to confirm or disconfirm the information provided. Adjudication of the individual would then be determined based upon the information extracted. Within this general model of interrogation, we now describe the various similarities and differences between criminal and HUMINT interrogative contexts.

Identifying a Source or Suspect

It is important to recognize that in both criminal and HUMINT investigations, interrogation typically takes place at a time when there has been no judicial determination that the person being interrogated is guilty of a crime or possesses useful information. Thus, given the considerable resources that may be invested in the interrogation process, especially for intelligence interrogations, one could argue that it is important to have an effective screening process in place to ensure that only those individuals with a relatively high potential for responsibility and/or knowledge accessibility are questioned. A criminal interrogation that elicits a confession or incriminating statement from an *innocent* individual is clearly a waste of resources, and in addition creates an obvious miscarriage of justice. Similarly, it would be counterproductive for a HUMINT interrogator to repeatedly question an individual who was incorrectly assessed as possessing critical information. Such a situation could evolve into a serious error if "enhanced" pressures were subsequently applied in an effort to overcome the individual's perceived resistance to questioning. Thus, the ultimate challenge in both settings is that the investigative process adequately ensures all likely sources of information are identified, while providing reasonable assurance that any source/suspect who is eventually interrogated is responsible for the alleged act or has access to the critical information sought. This process should make use of all available information (e.g., physical evidence, witness reports, apparent motive, access, opportunity, etc.), including in some cases a *lack* of evidence. Less reliable indicators, such as investigators' credibility assessments, should be given less weight in this

process. It should be noted that while competent investigation can help to allocate resources efficiently in deciding whom to interrogate, investigators will rarely have the luxury of interrogating an individual they *know* to be guilty or have useful information.

Our collective experience suggests that the threshold applied in both the criminal and HUMINT settings is often not stringent enough, and in some cases individuals are identified and eventually interrogated based upon little more than impressions formed by the investigating personnel. Research consistently shows that investigators' assessments of credibility are not reliable indicators of deception, yet investigators remain overconfident in their ability to detect deceit (e.g., Meissner & Kassin, 2002). Here, the role of informational or perceptual bias (often referred to as "investigative biases"; see Meissner & Kassin, 2004) is critical to consider, both for its influence on initial assessments of credibility (Kassin, Meissner, & Norwick, 2005; Meissner & Kassin, 2002) and eventually the conduct of the interrogation itself (Hill, Memon, & McGeorge, 2008; Kassin, Goldstein, & Savitsky, 2003; Narchet, Meissner, & Russano, 2009). The available research suggests that such biases can significantly influence the criminal interrogative process, and we see no reason to believe that a biased investigative process would not similarly influence HUMINT interrogators.

Initial Assessment of the Source or Suspect

Following the initial investigation, an interactive assessment of the source/suspect is generally undertaken. During this assessment general information about the individual (including an alibi in the criminal context) can be obtained and the interrogator can assess his/her level of cooperation, quality of communication, and the nature of any potential resistance. If an individual's alibi can be confirmed (i.e., a criminal investigation) or lack of knowledge in the relevant area can be verified (i.e., a HUMINT investigation), then the progression through the stages of interrogation would likely end after this initial assessment. Otherwise, the information gained during the assessment can inform the development of an initial engagement or approach strategy.

In criminal settings, this assessment is often based on the guidelines provided by training manuals, such as the Reid Technique (Inbau, Reid, Buckley, & Jayne, 2004) or the Kinesic Interview (Walters, 2003). Such guides often suggest that before accusatory interrogation techniques are used on a suspect, investigators should assess the suspect's credibility based upon verbal and non-verbal cues to deception. For example, the Reid Technique advocates use of the Behavior Analysis Interview (BAI) – a method touted as an effective way to assess the credibility of a suspect via a pre-interrogation interview. If, based upon such a pre-assessment method, the individual is deemed to be deceptive, an interrogation generally proceeds. This rationale is likely a contributing factor to investigators' false beliefs that they do not interrogate innocent individuals. However, there is little, if any, empirical support for the tenets of approaches such as the BAI (see Vrij, Mann & Fisher, 2006).

Nonetheless, a non-accusatory, pre-interrogation interview to obtain a preliminary assessment of credibility and cooperation can be valuable in both criminal and HUMINT settings, though this value depends on investigators using empirically established cues to deception (see DePaulo, Lindsay, Malone, et al., 2003) and appropriate caution when interpreting such cues. In this regard, interrogators must understand that no assessment of credibility is perfectly diagnostic, and therefore an individual's guilt/guilty knowledge can never be safely assumed.

Planning and Preparation

Once an investigator is convinced that an individual should be interrogated, a preliminary analysis of how the interrogation should proceed may be beneficial. Preparation generally involves the collection of all available information pertaining to the individual and the topic of interest (i.e., the criminal act and evidence, or relevant source information including access to critical information). This information is then assessed in light of the goals of questioning. In both criminal and HUMINT investigations, the goal of questioning at the most basic level is to obtain reliable information. Thus, it is important for interrogators to familiarize themselves with any information that is already established to determine if the information provided by the individual is consistent. As noted above, interrogators in both contexts should also maintain an appropriate mindset when considering the information and planning the interrogation so as to reduce the influence of investigative biases (Meissner & Kassin, 2004). Planning and preparation is recognized as an important component of HUMINT interrogations (Army FM 2-22.3).

Reaching Operational Accord / Methods of Interrogation

Whether an interrogation is conducted by law enforcement personnel or by intelligence officers, achieving a meaningful level of cooperation is of vital importance. Cooperation suggests that subjects are providing any information they possess of intelligence value and/or information of value to an investigation (depending on context). To more precisely capture the true nature of cooperation within an interrogation, however, we have chosen a term coined by one of the authors: *operational accord*. Operational accord describes an interrogator-interviewee relationship "marked by a constructive degree of conformity by the interviewee and/or a mutual affinity between the interviewee and the interrogator. It is often based on an understanding of, perhaps even guarded appreciation for, respective concerns, intentions, and desired outcomes." (Kleinman, p. 244) The term "rapport" has been commonly used to describe an approach that employs interpersonal, cultural, and/or linguistic skills to establish a non-adversarial, productive relationship between an interrogator and an interviewee. Operational accord may incorporate this approach, but also encompasses a broad array of productive, information-gathering relationships.

It is a basic challenge for any interrogator to understand and respond to an individual's motivation to either resist or cooperate, with a focus on diminishing the former and enhancing the latter. However, there has been a great deal of emphasis on the usefulness of, even the requirement for, more forceful measures that compel the individual "to talk." Rather than a voluntary response, compliance with an interrogator's demands that is based on the application or threat of increased physical, psychological, and/or emotional stress raises substantial legal, moral, and informational questions. In a law enforcement setting, for example, information obtained from an individual under such circumstances is likely to render that information "coerced," subverting the admissibility goal. Some methods of interrogation (including some minimization and maximization tactics used by law enforcement; see Kassin & McNall, 1991) have also been shown to increase the likelihood of coerced false confessions (Kassin & Kiechel, 1996; Klaver, Lee, & Rose, 2008; Russano et al., 2005; for a review, see Kassin et al., in press). There are similar concerns in the HUMINT context, as more forceful methods of interrogation may cause a source to respond to questions in a manner that appears to satisfy the interrogator's objectives, regardless of whether or not the source actually possess relevant information. Many experienced law enforcement and HUMINT interrogators appear to share the conviction that a subtle, relationship-building approach informed by cultural acuity and subject matter expertise (a

fostering or inquisitorial paradigm) is consistently a more effective way to reach operational accord than methods that involve the intentional application of psychological, physical, and/or emotional stress (a forcing paradigm). However, this belief is far from universal and on-going research in this area is vital.

Conducting the Interview

Once operational accord is achieved, the interrogator will seek to obtain reliable and complete answers to questions that are shaped by both overriding information requirements (e.g., elements of a crime or responses to prioritized intelligence requirements) and/or information that would offer insights into the individual's motivations for the alleged act. The interrogator will likely employ a systematic, overt means of exploring the individual's scope of knowledge in combination with more subtle means of elicitation to mask the interrogator's agenda and the current gaps in information or evidence. There are numerous similarities between the processes and dynamics that form the foundation of interrogation conducted for law enforcement and HUMINT purposes. Each involves a managed exchange of information (i.e., both the interrogator and the individual being interrogated possess information of interest and value to the other) and a managed relationship (i.e., it is incumbent upon the interrogator to carefully orchestrate words, behaviors, and context to enhance the probability of inducing a productive relationship). In both interrogation contexts, attributing responsibility and gaining knowledge are of substantial importance. However, as already discussed, criminal interrogation commonly places a higher premium on the former while HUMINT officers would emphasize the latter. A confession is arguably the highest form of acknowledging responsibility, and unfortunately, it is generally considered the end-state of the investigation by many law enforcement officers.

For the HUMINT interrogator, however, the value of any form of confession stems almost exclusively from its ability to establish an individual's placement and access to, or direct knowledge of, the information reported. Thus, a HUMINT interrogator generally aims to answer *all* of the basic interrogatives, while the criminal interrogator is typically focused on determining "who" committed the act and gathers other information only in the service of that goal. We believe this is an important, but unfortunate and unnecessary, distinction. Interrogators in the criminal justice system would benefit from obtaining full accounts of crimes instead of focusing their energy on obtaining admissions of guilt. At a minimum, the investigative process would benefit from criminal interrogators obtaining complete narrative accounts from the suspect (*not* written out by the interrogator), regardless of whether a confession is obtained. This would allow for a post-interrogation analysis of the confession statement (as is described in the next section).

One additional—and potentially significant—difference between criminal and HUMINT interrogations pertains to the cultural divide between the interrogator and the interviewee. In the HUMINT context, one can consistently expect to encounter cultural and linguistic factors that add to the complexity of the operational relationship, including the requirement of an interpreter that works with an interrogator to extract necessary information. Cultural issues have also proven to be important in a growing number of law enforcement interrogations as well, particularly given the increase in ethnic diversity within the United States and the investigation of terror-related crimes involving foreign nationals. Additional research on the effectiveness of interviewing through an interpreter is vitally needed, as discussed below.

Post-Interrogation Assessment

One of the most challenging aspects of any interrogation is to accurately gauge the veracity and reliability of the information provided by an individual. As noted above, criminal interrogators often fail to adequately assess the veracity of a confession statement, as they often rely upon stereotypes regarding the characteristics of liars that are propagated by many popular training programs (e.g., Inbau et al., 2004; Walters, 2003). Research has consistently questioned the validity of these approaches (e.g., Kassin & Fong, 1999; Vrij, Mann, & Fisher, 2006), and scholars have advocated for improved methods of post-interrogation assessment and corroboration of confessions (Leo & Ofshe, 1998).

Indeed, we believe the value of any confession depends on the extent to which post-interrogation analysis reveals that it confirms available information *held back from the interviewee* and provides *new information*, previously unknown to the investigators, that is confirmed by subsequent investigation (thereby demonstrating guilty knowledge on the part of the interviewee). In criminal settings this analysis of a confession is not always done, partly because full accounts may not have been obtained, and are therefore unavailable for analysis. When such an analysis *is* conducted, it is important that an objective record of the interview be relied upon to identify information obtained directly from the interviewee (as distinct from information provided by investigators). In HUMINT settings, this process of post-interrogation appraisal is often commonplace.

We also note here that information elicited in the HUMINT setting that proves to be false may not necessarily be the result of deception on the part of the source, as there is a concomitant risk that the individual simply possesses faulty (e.g., out of date) knowledge or a compromised ability to accurately recall the requested information. The latter aspect (i.e., the fragility of memory recall) is an important facet of interrogations that may distinguish a source (in the HUMINT setting) from a suspect (in the criminal setting). Intelligence interrogators will often seek information that may be significantly dated or relate to a specific event or persons that were seemingly unimportant to the source. In contrast, criminal interrogators frequently conduct interrogations in close temporal proximity to the criminal episode, and of individuals who will likely recall vivid details of the event given its significance. This distinction suggests that methods of credibility assessment that rely upon cognitive or story-based cues, such as Criteria-Based Content Analysis (see Köhnken, 2004; Vrij, 2005) or reality monitoring (see Sporer, 2004), may prove most effective for assessing the credibility of information elicited.

Adjudication

After the interrogation and its assessment, a decision must be made regarding future interrogations and/or adjudication of the individual. In the most general of terms, the individual could be (a) questioned further, (b) released, (c) held as long as possible (within the bounds of relevant law), or (d) prosecuted. In both criminal and HUMINT contexts, an important consideration should be the presumption of innocence that all individuals are afforded until such time as evidence exists to determine otherwise. Unfortunately, research has demonstrated that innocent individuals can be wrongfully convicted, sometimes on the basis of a false confession provided to police (Drizin & Leo, 2004). A related consideration in HUMINT settings that does not exist to the same extent in criminal settings is the strategic consequences of releasing a detainee. Such a release may impact ongoing and future operations, as released individuals can reveal critical information to the outside world and/or inform or influence future terrorist activities. Thus, the issue of adjudication in the HUMINT setting may, in fact, lead to a process

that resembles criminal interrogations aimed at producing evidence for a federal court or military court martial to consider. In this regard, intelligence interrogations may take on certain characteristics of criminal interrogations discussed above.

What can Current Psychological Research Tell Us about Interrogation?

Psychological science has contributed greatly to our understanding of criminal interrogations, particularly with regard to factors associated with eliciting false confessions (see Gudjonsson, 2003; Kassin & Gudjonsson, 2004). We now consider the extent to which this knowledge might generalize across criminal and HUMINT interrogations, given the relative similarities and differences between the two settings.

Improving the Diagnostic Value of Interrogative Methods

The accuracy of the information elicited from an individual should be an important focus of any interrogation, be it in a criminal or HUMINT context. In theory, the goal of an interrogation should always be to elicit diagnostic information. The *diagnostic value* of information is maximized when there is a high ratio of true or useful information elicited as compared to the amount of false or unhelpful information elicited. With this in mind, researchers have begun to explore the diagnostic value of various interrogation techniques (see Meissner, Russano, & Narchet, in press).

Two general approaches can be taken to examine the diagnostic value of an interrogative approach. First, researchers can assess the use of certain techniques in real interrogations conducted in criminal or HUMINT contexts and attempt to associate the use of these techniques with the elicitation of information from a given individual. This *field or archival research method* would certainly maximize the ecological validity of the associations identified, given that the data were collected under real-world conditions. However, such research suffers from important concerns related to the internal validity of the study – namely, there is little-to-no basis for inferring a causal conclusion and the researchers are often unable to substantiate whether the information obtained is factually true or false.

A second approach resolves this dilemma of internal validity, though it is often criticized for lacking external validity. An *experimental laboratory method* can be used to develop well controlled paradigms that model the psychological processes relevant to the interrogation setting. These paradigms generally involve creating a scenario in which a participant is enticed to engage in a behavior (i.e., sharing information with another participant regarding an experimental task) that is later characterized as an inappropriate act (i.e., cheating on a test in an academic context). Researchers can vary whether or not participants commit the inappropriate act or are exposed to "guilty knowledge" (and are therefore innocent or guilty), and subsequently assess the extent to which a given interrogation tactic yields true vs. false information.

Russano, Meissner, Narchet, and Kassin (2005) recently created a laboratory paradigm in this fashion and assessed the extent to which certain interrogation techniques led to true vs. false confessions. The results of this seminal study demonstrated that both minimization techniques (e.g., themes that attempt to minimize the seriousness of the offense or the consequences associated with confession) and an explicit offer of leniency increased the likelihood of both true and false confessions, thereby reducing the diagnostic value of the information elicited. In a subsequent study using the Russano et al. (2005) paradigm, Narchet, Meissner and Russano (2009) found that when investigators chose to employ standard accusatorial methods (involving

elements of both minimization and maximization), the interrogations were significantly less diagnostic than when interrogators chose to employ non-accusatorial methods (such as an information-gathering approach). Two follow-up studies by Meissner, Russano, Rigoni, and Horgan (2009) directly manipulated the use of an inquisitorial approach (modeled after the techniques generally advocated in Great Britain; see Bull & Milne, 2004) compared to a standard accusatorial approach (combining aspects of minimization and maximization). The results again confirmed that the inquisitorial approach was significantly more diagnostic than the standard accusatorial approach.

Although laboratory research exploring the diagnostic value of interrogation techniques is still in its infancy, it offers great potential for identifying approaches that can be advocated with confidence in their ability to elicit valuable information. One constant challenge for researchers is to create laboratory paradigms that adequately capture "real world" elements so as to effectively model the psychological, emotional, and physical factors relevant to interrogative contexts. In addition, it is important that researchers seek *psychological realism* in their paradigms – ensuring that participants perceive the scenario as realistic and react as they might naturally in a real world context. Finally, it will be important for psychologists to consider whether the research conducted on criminal interrogations (see Gudjonsson, 2003; Kassin & Gudjonsson, 2004) translates appropriately to the HUMINT context. For example, while the Russano et al. paradigm has been useful in examining interrogation techniques leading to confessions (the typical goal for a criminal interrogator), HUMINT interrogations focus more broadly on the amount of true vs. false information elicited. As such, researchers need to develop paradigms that effectively model this and other elements of the HUMINT context as they seek to generalize their research and, ultimately, improve the diagnostic value of interrogations.

Deception Detection

Interrogators frequently attempt to detect deception in the context of an interrogation and even more so during post-interrogation assessment. However, a robust research literature exists on human lie detection performance (see Vrij, 2008) suggesting that individuals detect deception at only slightly greater than chance levels (54% on average; see Bond & DePaulo, 2006), and that trained investigators generally perform no better than naïve participants (Meissner & Kassin, 2002). Few consistent verbal or nonverbal cues to deception have been identified; those that have been found are far from perfectly discriminative, appear to vary across individuals and situations, and have received very little investigation outside studies with American subjects (see Bond & Rao, 2004; DePaulo et al., 2003). Cues that most people believe indicate deception – such as gaze avoidance – actually fail to indicate deception in practice. For example, research suggests that signs of nervousness are poor indicators of deception, as most people become anxious when confronted and questioned by an authority figure (Bond & Fahey, 1987; Ofshe & Leo, 1997).

The most promising indicators of deception appear to involve cognitive or story-based cues (see Köhnken, 2004; Sporer, 2004; Vrij, 2005). For example, truth-tellers' stories are generally more inconsistent than liars' stories, contain more related and extraneous details, and are told with more variance across repeated iterations than are lies (Granhag, Stromwall, & Jonsson, 2003). A promising line of research comes from studies showing that an information-gathering interview style elicits cues to deception that even a naïve observer may pick up (Fisher, Brennan, & McCauley, 2002). Not only does open communication with the detainee increase the opportunity for the interrogator to corroborate the details provided, but information-gathering

interviews also promote more verbal and nonverbal cues to deceit than do accusatorial interviews (Vrij, Mann, Kristen, & Fisher, 2007). In addition, recent studies have found that asking someone to engage in some unexpected method of storytelling, such as telling the story in reverse order (Vrij, Mann, Fisher, Leal, Milne, & Bull, 2008) or engaging in a distracting task while being interviewed (Vrij, Fisher, Mann, & Leal, 2006), also elicit cues that indicate whether the story is true or false. If researchers can further develop these relatively simple, yet effective, strategies, they would ultimately improve the practice of human credibility assessments in both criminal and HUMINT interrogative settings. However, for the present, we strongly caution that even the most successful of the current approaches improve detection accuracy by only 10-15% above chance levels. Thus, investigators must recognize that even when they use the best available techniques their judgments are likely to be just slightly better than chance responding.

Other Relevant Behavioral Science Contributions

Interrogation, whether within the criminal or HUMINT domain, is fundamentally a human-to-human interaction involving two or more persons. This characterization suggests that much of the behavioral science literature relevant to individuals, groups, or dyadic behaviors is likely germane to some aspect of interrogation. In the present article we have focused on those areas of knowledge most immediately useful to an interrogator. We believe that a more in-depth assessment of the following issues could be useful to understanding the relationship between the interrogator and interviewee.

Rapport. There is much support for the proposition that building rapport (i.e., establishing mutual trust and respect) is critical to effective negotiations. Psychologists have identified skills and approaches that support rapport building (Hays, 2008), and its role has been acknowledged both by market negotiators (Drolet & Morris, 2000) and law enforcement interrogators (St.-Yves, 2006). Methods of developing rapport vary depending on the interrogator and interviewee's personal characteristics and communication styles, and the relationship between these two. For example, while interrogation depends upon verbal communication, talking may not be ideal for establishing rapport, especially with young men (Kiselica & Englar-Carlson, 2008). Sometimes silence is more effective for rapport building – in doctor-patient relationships silences initiated by the therapist and terminated by the client can be important to rapport building (Sharpley, 1997; Sharpley, Munro, & Elly, 2005). Cultures also vary in terms of the importance placed on the concept of rapport vs. respect: while European and American cultures emphasize egalitarianism in relationships, respect may play a larger role in other cultures (including Latino, African, Asian, and Arab; see Hays, 2008).

Self-disclosure. The most consistent finding regarding the process by which people get to know each other appears to be self-disclosure (or reciprocity). Namely, the best predictor of the level of self-disclosure that person A will use in revealing himself to person B is the level of disclosure that person B exhibited when relating to person A (Archer, 1979; Chaikin & Derlega, 1974). This appears to be particularly important in the early stages of a relationship (Altman & Taylor, 1973). Certain individual difference characteristics distinguish the degree of self-disclosure that people are willing to provide. For example, high self-monitors (people who control their self-presentation to fit the current situation) are more likely to reciprocate the level of intimacy, emotionality, and descriptive content displayed by another person who is self-disclosing (Shaffer, Smith & Tomarelli, 1982), and this effect may be exacerbated by the degree to which the individual anticipates future interactions (Shaffer, Ogden & Wu, 1987). In brief, an

interrogator who is willing to self-disclose (whether truthfully or not) may be rewarded with a more forthcoming interviewee.

Social norms. Social norms are the implicit and/or explicit rules that a group uses for determining appropriate and inappropriate values, beliefs, and attitudes that motivate and direct behavior (Cialdini, Kallgren, & Reno, 1991; Latane & Darley, 1970). Social norms provide a standard to which people generally seek to conform (Schultz, Nolan, Cialdini, Goldstein & Griskevicius, 2007). There are two categories of social norms, namely descriptive (a group's perception of what is commonly done in a given situation) and injunctive (a group's perceptions of what is commonly approved or disapproved of within a culture; Reno, Cialdini, & Kallgren, 1993). To effectively use social norms as a means of influencing behavior, an interrogator must know something about the interviewee's current social status. For example, if an interrogator knows that support of one's family is an important social norm, it would be important to understand the relationship between the individual and his/her family before making use of this descriptive social norm.

Persuasion theories. Interrogators often engage in persuasion – that is, they attempt to convince examinees to provide information that goes again their self interests, or the interests of their cause. When considering the interrogative context it is important to understand that people can effectively resist persuasion under certain situations, including when they are aware of someone's intention to persuade (Hass & Grady, 1975), when they feel a persuasive message threatens their personal freedom (Brehm, 1966), and when their attitudes are especially strong (Petty & Krosnick, 1995; Tormala, Clarkson, & Petty, 2006). These variables will be clearly present in most interrogations. Thus, approaches to persuasion of which the interviewee is unaware must be identified. Indeed, various persuasion techniques – "foot-in-door," "door-in-the-face," and "low-balling" – often work outside a person's awareness and may be less effective if the person is aware of them (Cialdini, 1993; for review, see Cialdini & Goldstein, 2004). Social influence can prove important for a variety of reasons. For example, the target may internalize the desires of the influence agent, come to identify with the message of the influence agent, simply comply with the request of the influence agent (a rather shallow process of social influence; Kelman, 1961), or adhere to a descriptive norm based upon the demands of the context (Nolan, Schultz, Cialdini, Goldstein, & Griskevicius, 2008). As may be evident, interrogators familiar with effective methods of persuasion are more likely to succeed in gaining operational accord and eliciting useful information.

Negotiation. Negotiation is an exchange between two or more parties with the goal of resolving a divergence of interests (Thompson, 1991; 2006; Van Kleef, De Dreu, & Manstead, 2006). It may be appropriate to view an interrogation, in some part, as a negotiation between the interrogator and the interviewee. There has been a great deal of research conducted on what enhances or diminishes the likelihood of successful negotiation. *Individualists* in negotiations try to maximize their own outcomes without worrying about the other person's gains or losses; in contrast, *cooperators* try to maximize the outcomes for both. Generally, cooperatively motivated negotiators reach more agreements than individualistic negotiators (Carnevale & Lawler, 1986). Punitive capability, or the degree to which an individual can adversely affect an opposing party's outcomes (Pruitt & Carnevale, 1993), has been shown to negatively influence trust in a negotiation and thus have a detrimental impact on a negotiation's success (DeDreu, Giebels, & Van De Vliet, 1998). This has obvious relevance to an interrogation context, where one

"negotiator" has punitive capability and the other does not. Factors that support effective negotiation include perspective taking (a cognitive capacity to consider the world from other viewpoints) and empathy (the ability to share or understand another person's state of mind or emotions). Perspective taking may be particularly useful, as it has been shown to increase an individual's ability to discover hidden agreements and to create and claim resources in bargaining situations (Galinsky, Maddux, Gilin, & White, 2008).

Issues that Require Further Research

While the research described above may be applicable to both criminal and HUMINT interrogation settings, we believe additional research is needed in several key areas. Below, we briefly describe the most pressing issues that, if addressed, will significantly advance the science of interrogation.

Continued Research on the Effectiveness of Interrogation Tactics

As discussed above, both basic and applied psychological research have much to offer in the way of informing the science of interrogation in both the criminal and HUMINT contexts. In addition, there is an accumulating body of controlled, laboratory-based research directly assessing the effects of various interrogation factors on the likelihood of eliciting confessions (e.g., Horselenberg, Merckelbach, & Josephs, 2003; Kassin & Kiechel, 1996; Klaver, et al., 2008; Redlich & Goodman, 2003; Narchet et al., 2009; Russano et al., 2005). However, there are many interrogation methods and factors that have yet to be evaluated under controlled conditions. For example, although researchers have found that minimization decreases the diagnostic value of an interrogation (Russano et al., 2005), minimization is a "package" involving a variety of different interrogation themes (e.g., expressing sympathy, offering face-saving excuses, minimizing the seriousness of the offense, implying leniency, etc.). Similarly complex are the numerous techniques that typically are categorized under the umbrellas of "maximization" (e.g., unfriendly demeanor, expressing absolute certainly in the suspect's guilt, presentation of false evidence, etc.) and "inquisitorial" or "cognitive" interviewing approaches (e.g., rapport-building, asking open-ended questions, avoiding interruptions, long pauses, mnemonics for memory enhancement). Future research is needed to assess the possible unique influences of these various techniques and to determine which work best in a given context. Importantly, it is possible that certain approaches will prove more effective in the criminal vs. HUMINT interrogative setting, and paradigms should be developed to assess the efficacy of techniques in each context (see below).

Characteristics of the Interrogator and the Influence of Interpreters

It is an untested hypothesis that if an interrogator is from the same cultural and language group as the target, or can at least speak and understand the language like a native, this will increase the likelihood of gathering useful information. Hans Scharff, a notably successful German interrogator of American POW fighter pilots during World War II, appears to have had those qualities: he had spent time in the US, spoke American English, and was intimately familiar with American culture (Tolliver, 1980). Some of his success also may have come from the fact that so much of American culture of the 1940s had been shaped by German immigrants, so that we might assume that the distance between American and German values, beliefs, and attitudes was less than the distance between (for example) American and Iraqi or Afghan values, beliefs, and attitudes.

We believe that it would be efficacious for naïve interrogators to understand how their own life history, their own culture and political, economic and social groups, and their own self-identities, shape how they see the world. Not only could this self-knowledge make interrogators aware of their own perceptions, stereotypes, biases, and expectations, but it would also assist them in understanding the degree to which their world overlaps (or not) with that of the interviewee. Here again, there is no empirical data that we know of regarding the influence of interrogator characteristics or the impact of a correspondence between interrogator and interviewee characteristics (including ethnicity, age, or gender), on interrogation efficacy.

Finally, in both HUMINT and criminal contexts, though arguably more so in HUMINT settings, the inability to speak the language of the interviewee has led to the significant use of interpreters. Thus, a critical question remains regarding how the introduction of an interpreter affects the diagnostic value of various interrogative approaches. This issue relates to both the cognitive effects of interpreters interrupting the flow of an interrogation and filtering information obtained from the individual, and the potential loss of social influence when an interviewee communicates with the interpreter rather than the interrogator.

Contextual Priming that Promotes Compliant Behavior

Seemingly innocuous and apparently unrelated aspects of the immediate physical environment can affect responses to people, events, and other cues within that context. Various aspects of a context may serve as priming cues (Tulving & Schacter, 1990; Tulving, Schacter, & Stark, 1982; see also Higgins & Kruglanski, 1996), implicitly activating or making salient a category in a way that has behavioral consequences. For example, holding a warm cup of coffee can increase feelings of warmth towards a stranger (Williams & Bargh, 2008), and the mere presence of weapons produces aggressive behaviors (Anderson, Benjamin, & Bartholow, 1998). Priming is believed to occur outside of our awareness, is highly robust, and has been demonstrated in a wide variety of contexts for a wide variety of subjects (for reviews, see Klauer & Musch, 2003; Neely, 1991; Tulving & Schacter, 1990). The deliberate use of contextual priming, especially to exert influences on judgment and behavior without awareness, has yet to be explored for application in the interrogation setting.

HUMINT Interrogations and Intelligence Metrics

One broad challenge for researchers who seek to conduct controlled laboratory studies directly addressing HUMINT interrogations is creating new paradigms that better address the outcome of interest in that context. Whereas, at least at a practical level, a confession is the primary desired outcome during a criminal interrogation (and therefore, the most appropriate dependent variable in a research experiment), the goal of a HUMINT interrogation is typically to elicit accurate information from a source that can be used to protect or further national interests. Given this distinction, it will be important for researchers to create a paradigm in which interrogation "effectiveness" is measured not by the diagnostic value of the confession obtained, but rather by the diagnostic value of the information obtained. We propose that a "successful" interrogation can be defined as one in which (a) the information provided by the source has *high validity* (i.e., the information is truthful or accurate) and (b) the information provided is *useful* for intelligence/investigation purposes. (These dimensions roughly correspond with the criteria we previously outlined to determine the value of a *confession*, i.e., that the information provided confirms available information and provides new information that can be verified.) These two dimensions may prove to be independent factors that could be combined into an "intelligence

metric," which could be used to assess the success of a HUMINT interrogation. When designing new experimental paradigms, researchers should consider the extent to which information provided could be assessed along these dimensions.

Generalization, Field Experimentation, Validation, and Training Efficacy

The vast majority of scientific research detailed in this article relied on American or British participants, a factor we should be mindful of when generalizing these findings to more diverse populations. The extent to which we can generalize from the study populations used historically by psychologists (and upon which the great majority of our knowledge and principals have been based) to those individuals who are the targets of interrogations – particularly in intelligence settings, where the interviewee is most likely not American or British – is a critical question.

In addition, we believe that researchers must begin thinking about how to move from laboratory settings into operational or field settings. As we establish findings and phenomena in controlled, experimental settings, it is incumbent upon us to replicate (and extend) our findings in field contexts. Researchers should partner with law enforcement and HUMINT personnel to develop and conduct quasi-experimental studies in field settings in which field-relevant variables (e.g., target population, environmental characteristics) are addressed. Ideally, the findings from both laboratory and field research will lead to the development of informed training programs that are based in scientific efficacy. We believe that the collaboration that produced this article provides an excellent model for how practical, "real world" knowledge and experience can be used to inform psychological research, which can in turn provide a solid basis from which to guide public policy.

The challenges posed by field validation are ubiquitous to the application or use of any scientific discovery. One possible model to consider might be "phased clinical trials" at the National Institutes of Health (NIH), which were developed as a function of interactions between the NIH and the pharmaceutical industry. Education researchers face similar challenges, and in that arena, the question of the necessity of "randomized controlled trials" is controversial (as such trials historically have been problematic to implement). The Environmental Protection Act, enacted by Congress in 1916, was preceded by decades of efforts by scientists and physicians to insert evidence-based practices in the food and drug industries. We face similar challenges for the field validation of methods, tools and principles developed by behavioral scientists for application to criminal and HUMINT interrogations. Among the issues to be resolved are those related to the oversight of Institutional Review Boards, including questions regarding participant privacy and confidentiality, record keeping and sharing, and, in the HUMINT context, security clearances. These challenges are most likely to be exacerbated by conducting international laboratory or field experiments, training, or field validation with individuals who may have different protections and rights than those with whom the researches' typically interact.

As we continue to establish new and more reliable methods of eliciting information, we also face the challenge of how to effectively train interrogators to appropriately implement these tactics. For example, can we create role-playing scenarios that adequately capture the forces at work during an interrogation? Can we develop intelligent and immersive computer-based environments that allow naïve interrogators the opportunity to interact with an interviewee and model appropriate interrogation tactics? It will be important for those in the educational and social sciences to assist in the development of effective, yet efficient, instructional approaches

that meet the growing demand for skilled interrogators both in the criminal and HUMINT sectors.

Conclusions

While the subject of interrogations in criminal contexts has begun to amass a respectable body of scientific research, this has not been the case for interrogations relevant to the HUMINT setting. Nevertheless, psychological researchers have much to offer interrogators in both contexts, including the role of cognitive, social, and personality (or individual difference) processes that form the basis of the interrogator-interviewee relationship. In the current article, we have sought to bring attention to the important similarities and differences between the two interrogation contexts. While much of the basic research on interrogative approaches, deception detection, and social influence processes appear relevant to both criminal and HUMINT interrogators, it is important that we develop additional methods and paradigms that address key facets of the intelligence setting that have been overlooked – including the consideration of appropriate metrics of information validity and usefulness that are central to the HUMINT analyst's assessment of an interrogation.

As a research team, we are working to identify interrogative approaches and psychological processes that are grounded in a firm scientific basis and which we eventually can begin to advocate in the training of HUMINT interrogators. Pending the development of scientifically proven methods, we advocate for further research on key issues heretofore unexamined, which we hope will improve the validity and efficacy of interrogations conducted in the intelligence community. It is our hope that the research we have highlighted as having applications to interrogations in either context will spur new studies, as will the proposed areas that have received little or no attention but which are vital to proper and effective interrogations. We believe that psychological science holds the key to our success in this arena, and we invite the larger community of researchers to assist us in improving the interrogative process via empirical inquiry.

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