



Investigative Interviewing: Research and Practice

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Special Issue: Investigative Interviewing for the Purposes of Gathering Intelligence

Uncharted Waters: Social Science in Intelligence Interviewing Contexts

Guest Editors: Michael J. Williams and Steven M. Kleinman

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Investigative Interviewing: Research and Practice (II-RP)

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Uncharted Waters: Social Science in Intelligence Interviewing Contexts

Guest Editors: Michael J. Williams*¹ and Steven M. Kleinman²

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Introduction

To the readership of Investigative Interviewing: Research and Practice, it will come as no surprise that the substantial, and enduring, problem of false confession has been addressed, in considerable depth, through multiple reviews (Gudjonsson & Pearce, 2011; Kassin, 2015; Kassin et al., 2010; Lassiter & Meissner, 2010) spanning findings from more than five decades. What, in contrast, may surprise many is that this systematic effort to understand, empirically, the causes and consequences of false confessions has generated little meaningful progress toward the creation of an evidence-based model for effectively eliciting useful information from human sources (Evans et al., 2010; Granhag, Vrij, & Meissner, 2014).

In the past decade, researchers have risen to this important challenge, and have rigorously begun to explore “what works” in the domain commonly referred to as human intelligence collection (HUMINT; Headquarters, 2006). Central to this effort has been the emphasis on eliciting information that is not primarily focused on the relatively narrow objective of gaining sources’ self-incriminating statements, but rather on gaining information of broader intelligence value (Evans et al., 2010). To be sure, this research has neither ignored, nor eschewed, research on false confessions. Empirical tests of intelligence-gathering approaches, for example, have frequently based the assessment of a given tactic on its “diagnosticity”: the reported ratio of true vs. false information generated (Meissner, Redlich, Bhatt, Christian, & Allison, 2012; Meissner, Redlich, Michael, Evans, & Brandon, 2014).

Currently, research on intelligence interviewing has not only taken root; arguably, it can be described as flourishing. For example, in 2010, the High-Value Detainee Interrogation Group (the HIG, a hybrid law enforcement-intelligence agency staffed by personnel from the Federal Bureau of Investigation, Central Intelligence Agency, and the U.S. Department of Defense) was chartered into existence: an extension of Executive Order 13491, which was signed by the President of the United States in January, 2009 (James, 2010). Beyond its operational responsibilities, the HIG’s mandate includes a robust scientific research program to assess the effectiveness of current interrogation practices, in addition to developing demonstrably more effective strategies that

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adhere to U.S. and international legal standards (Department of Justice, 2009). Thus far, the HIG has sponsored an international roster of noted researchers, including not only 10 of the 12 research articles featured in last year's special issue of *Applied Cognitive Psychology* devoted to this topic (Granhag, Vrij, & Meissner, 2014), but also one of the pieces featured in this special issue of *II-RP*. This special issue—the first of its kind for *II-RP*—devoted solely to intelligence interviewing, reflects the burgeoning interest in, and activity surrounding, the development of a science-based approach to intelligence interviewing.

Despite this increase in research on intelligence interviewing, there remain vast—seemingly limitless—frontiers to be explored. Very little research has been conducted to date to investigate the behavioral dynamics involved in such methods as the so-called “non-interrogator” approach described in the U.S. Army Field Manual on interrogation (Headquarters, 2006; Smith, Stinson, & Patry, 2009, 2010; Williams, 2012)¹. Similarly, research has only begun to consider ways to promote the disclosure of information through “priming,” a term used to describe a way in which situational contexts can influence specific behaviors, such as sources' openness (Dawson & Hartwig, 2013; High-Value Detainee Interrogation Group, 2014). A number of other potentially important factors, that might be similarly useful—including reciprocity, friendship, a sense of comfort or security (Williams, 2014)—await experimental inquiry.

The articles of this very issue are a testament to the creativity, and staggering variety, of research paving the way toward more effective approaches to intelligence interviewing. These important articles include a discussion of rapport in the intelligence interviewing context—a concept far more widely referenced than understood—that not only offers an examination of the underlying behavioral science, but also a description of a much-needed empirical measure (Alison, Susan, & McGuire, 2015); a thoughtful inquiry into how social identity can help to explain the complex, and complicated, interactions between interrogators and detainees (Kelly, Abdel-Salam, Miller, & Redlich, 2015); an innovative look at how interviewers might persuade sources when interacting in virtual/synthetic environments (Dando & Tranter, 2015); and a vitally important, science-based refutation of neurolinguistic programming as a legitimate means of enhancing the effectiveness of criminal interviews and interrogations (Bhatt & Brandon, 2015).

The guest editors profoundly thank, and congratulate, the authors for the exceptional work to be found within these pages. An additional heartfelt note of thanks, and appreciation, is extended to the current editor, Dr. Dave Walsh, a gentleman and scholar, for the honor and pleasure of coordinating this special issue. We are humbled by your willingness to entrust this special issue of *II-RP* to our care. Furthermore, our thanks go to the publisher of *II-RP*, The International Investigative Interviewing Research Group, an intellectually vibrant organization responsible not only for this journal, but also for annual research conferences at which “the combined opportunity of learning and networking is unparalleled” (S. Kleinman, as cited in Williams, 2014b). Finally, we wish to acknowledge the indispensable efforts of the anonymous scholars who diligently reviewed each and every submitted manuscript. Without your considerable efforts, this special issue would have been impossible.

We wish the reader enjoyable explorations of this landmark issue of *II-RP*.

¹ In accordance with the Geneva Conventions, interrogators may not pose as the following: a doctor, medic, or any other type of medical personnel; any member of the International Committee of the Red Cross (ICRC) or its affiliates; a chaplain or clergy; a journalist; or a member of the US Congress (Headquarters, 2006, §8-10).

References

- Alison, L., Susan, G., & McGuire, G. (2015). Blood from a stone: Why rapport works and torture doesn't in "enhanced" interrogations. *Investigative Interviewing: Research and Practice*, 7(2).
- Bhatt, S., & Brandon, S. E. (2015). Neurolinguistic programming (NLP) in investigative interviewing: Recommended alternative methods. *Investigative Interviewing: Research and Practice*, 7(2).
- Dando, C. J., & Tranter, C. (2015). Intelligence interviewing: Synthetic environments, cognition, and cognitive styles. *Investigative Interviewing: Research and Practice*, 7(2).
- Evans, B. Y. J. R., Meissner, C. A., Brandon, S. E., Russano, M. B., Kleinman, S. M., & Evans, J. R. (2010). Criminal versus HUMINT interrogations: The importance of psychological science to improving interrogative practice. *Journal of Psychiatry Law*, 38, 215–249.
- Granhag, P. A., Vrij, A., & Meissner, C. A. (2014). Information gathering in law enforcement and intelligence settings: Advancing theory and practice. *Applied Cognitive Psychology*, 28(6), 815–816. doi:10.1002/acp3065
- Gudjonsson, G. H., & Pearse, J. (2011). Suspect Interviews and False Confessions. *Current Directions in Psychological Science*, 20(1), 33–37. doi:10.1177/0963721410396824
- Headquarters, U. S. A. T. and D. C. (TRADOC). (2006). *Army Field Manual – Human Intelligence Collector Operations (FM 2-22.3)*. Washington, DC.
- Kassin, S. M. (2015). The Social Psychology of False Confessions, 9(1), 25–51.
- Kassin, S. M., Drizin, S. A., Grisso, T., Gudjonsson, G. H., Leo, R. a, & Redlich, A. D. (2010). Police-induced confessions: Risk factors and recommendations. *Law and Human Behavior*, 34(1), 3–38. doi:10.1007/s10979-009-9188-6
- Kelly, C. E., Abdel-Salam, S., Miller, J. C., & Redlich, A. D. (2015). Social identity and the perceived effectiveness of interrogation methods. *Investigative Interviewing: Research and Practice*, 7(2).
- Lassiter, G. D., & Meissner, C. A. (Eds.). (2010). *Police interrogations and false confessions: Current research, practice, and policy recommendations*. Washington: American Psychological Association. doi:10.1037/12085-000
- Meissner, C. A., Redlich, A. D., Bhatt, S., Christian, A., & Allison, D. (2012). Interview and interrogation methods and their effects on true and false confessions. doi:10.4073/csr.2012.13
- Meissner, C. A., Redlich, A. D., Michael, S. W., Evans, J. R., & Brandon, S. (2014). Accusatorial and information-gathering interrogation methods and their effects on true and false confessions : a meta-analytic review, 459–486. doi:10.1007/s11292-014-9207-6
- Smith, S. M., Stinson, V., & Patry, M. W. (2009). Using the "Mr. Big" technique to elicit confessions: Successful innovation or dangerous development in the Canadian legal system? *Psychology, Public Policy, and Law*, 15(3), 168–193. doi:10.1037/a0016962
- Smith, S. M., Stinson, V., & Patry, M. W. (2010). High-risk interrogation: using the "Mr. Big Technique" to elicit confessions. *Law and Human Behavior*, 34(1), 39–40. doi:10.1007/s10979-009-9203-y
- Williams, M. J. (2012). Psychological theory and experimental hypotheses based on U . S . Army field manual 2-22.3. *Investigative Interviewing: Research and Practice*, 4(2), 45–57. Retrieved from <http://www.ssrn.com/abstract=2352173>
- Williams, M. J. (2014). *Terror management theory upside down: Prosocial behavior following immortality priming*. (Doctoral dissertation). ProQuest Dissertations and Theses. (Order No. 3625810). Retrieved from <http://bit.ly/1LRVTOI>

Williams, M. J. (2014b, January 29). The International Investigative Interviewing Research Group [Web log post]. Retrieved from <http://cveandhumint.blogspot.com/2014/01/humint-hump-day-international.html>



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Blood from a Stone: Why Rapport Works and Torture Doesn't in 'Enhanced' Interrogations

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Blood from a Stone: Why Rapport Works and Torture Doesn't in 'Enhanced' Interrogations

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Abstract

Contrary to the harsh 'enhanced interrogation' techniques employed during CIA operations on the War on Terror, contemporary research demonstrates that rapport building is a more effective way of achieving positive outcomes in interviews with general offender populations.

Comparatively less research has explored the role of rapport with recalcitrant suspects, particularly suspected terrorists. We define a 'terrorist suspect' as an individual that a law enforcement officer has reasonable suspicion of involvement in a terrorist offence, with an 'investigative interview'/'interrogation' as the formal questioning of the suspect by one or more police officers following the suspect's arrest. This paper aims to develop the internal coherence of rapport approaches in interviews with terrorist suspects by providing a review of how and why rapport underpins successful police interrogations with suspected terrorists. We examine the much misunderstood and ill defined concept of rapport and how recent research has observed and measured rapport in operational field settings. We then examine the conceptual basis of an emerging research and training tool, ORBIT, and outline the reasons why rapport and tools such as ORBIT should be effective in (i) reducing counter interrogation tactics and (ii) increasing the amount of evidence and information generated. The review concludes by acknowledging the practical implications this has for interrogation and human intelligence practices.

Keywords: *interviewing; interrogation; rapport building; motivational interviewing; terrorism*

Introduction

Contrary to the harsh 'enhanced interrogation' techniques employed during CIA operations on the War on Terror, contemporary research demonstrates that rapport building is a more effective way of achieving positive outcomes in interviews with general offender populations. Comparatively less research has explored the role of rapport with recalcitrant

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suspect, particularly suspected terrorists. We define a 'terrorist suspect' as an individual that a law enforcement officer has reasonable suspicion of involvement in a terrorist offence, with an 'investigative interview'/'interrogation'¹ as the formal questioning of the suspect by one or more police officers following the suspect's arrest. This paper aims to develop the internal coherence of rapport approaches in interviews with terrorist suspects by providing a review of how and why rapport underpins successful police interrogations with suspected terrorists. We examine the much misunderstood and ill defined concept of rapport and how recent research has observed and measured rapport in operational field settings. We then examine the conceptual basis of an emerging research and training tool, ORBIT, and outline the reasons why rapport and tools such as ORBIT should be effective in (i) reducing counter interrogation tactics and (ii) increasing the amount of evidence and information generated. The review concludes by acknowledging the practical implications this has for interrogation and human intelligence practices.

'My dear son, don't be so sweet that people swallow you up, nor so bitter that they spit you out'

- The Wisdom of Luqman

'You do the 'rapport bit' at the beginning and then I'll get on with questioning him'

- Police interviewer to co-interviewer in preparing for an interrogation

Connection, not correction

During the War on Terror, the CIA's operations subjected hundreds of suspected terrorists to harsh interrogation techniques, which were often criticised as constituting torture. Now, the Senate Intelligence Committee's report on the operation has made it clearer than ever that the CIA used many forms of 'enhanced interrogation' to elicit information and that these harsh methods simply did not yield the intended results. Though a minority of individuals from various defense and police agencies have argued that these methods confer short term tactical advantages, Alison et al. (2013) highlight that there is no evidence for such short term apparent gain. Instead, they argue that there is compelling evidence that coercion, torture and the attempted debasement and humiliation of suspects creates significant long term disadvantages. For example, Dreher, Gassebner, and Siemers (2010) found that terrorist attacks frequently emerge subsequent to human rights violations (including torture). As such, these long term disadvantages may serve to elevate future threats, without securing significant life-saving intelligence.

In recent decades, the importance of rapport in interrogations (as an alternative to coercion) has become a clear focus of attention for academics and practitioners. In the United Kingdom (UK) rapport is considered vital in police interviews and is included in the 'Engage and Explain' phase of the PEACE investigative interview model. It is the second step of Scotland's PRICE model (Caproni, 2008) and in the United States of America (USA), the Federal Bureau of Investigation (FBI) considers rapport as the basis for the interrogation of suspects (Shawyer, Milne, & Bull, 2009). In both the UK and US the literature has highlighted that building rapport with witnesses increases the amount of accurate information generated (Collins, Lincoln, & Frank, 2005; Holmberg, 2004; Vallano & Schreiber Compo, 2011). More recently, attention has turned to suspect interview outcomes (Meissner et al., 2012 and see below) Despite these promising research findings, in the first author's 20 years experience of working in the area many

¹ We use the terms 'interview' and 'interrogation' and 'interviewer' and 'interrogator' interchangeably to reflect the UK and US terminology

interrogators (as well as academics) still struggle to define rapport, do not consider what its component parts are and do not have a clear idea of why it might work. In practise, it is often confused with being nice or is erroneously considered as being something that can be done in the first few minutes of an interrogation - after which the 'real' business of interrogations can occur. Vanderhallen and Vervaeke (2014) state that: (i) rapport enhances suspects' cooperation during interviews and (ii) building rapport and enhancing cooperation elicits more accurate information from suspects. However, as yet, neither issue has been empirically demonstrated nor operationalised by reference to any specific research within field settings. As such, the following questions require further academic and operational attention.

- Definition - what is rapport and, specifically, its constituent parts?
- Efficacy - what effect, if any, does it have and is it better than more coercive methods?
- Application - what critical issues emerge when applying rapport based approaches to terrorist suspect interrogations? Once identified, can interrogators be trained in rapport based methods?

By examining these key questions this paper seeks to develop the internal coherence of rapport based methods, specifically in relation to improving interrogative practises with terrorist suspects.

Definition - what is rapport and, specifically, its constituent parts? There have been various fairly loose interpretations of rapport. For example, it has been described as a relationship characterised by harmony and empathy (Sandoval & Adams, 2001), or as a professional relationship between two parties (Clarke & Milne, 2001) but, in a recent review, Vanderhallen and Vervaeke (2014) explain that rapport suffers conceptual and theoretical weaknesses due to the inconsistency within which rapport is referred. These weaknesses impede the general understanding of what interviewers should do to establish rapport. These authors argue that the most comprehensive theoretical framework to date, proposed by Tickle-Denegen and Rosenthal (1990), focuses on behavioural and affective aspects of rapport, and touches upon interactions between clinicians and clients. According to this framework, rapport has three main components: mutual attention, positivity, and coordination. *Mutual attention* is the degree of involvement or engagement that interactants experience. According to Abbe and Brandon (2013) mutual attentiveness is a necessary condition before positivity or coordination can be established or the interview can proceed to more substantive issues. *Positivity* is often referred to as 'unconditional positive regard' in therapeutic contexts (Rogers, 1957) although 'unconditional neutral regard' has been identified as being more realistic in certain clinical contexts (Willshire & Brodsky, 2001). Abbe and Brandon (2013) argue that mutual respect, which appears less often in the clinical literature, may be a more useful foundation of positivity in interrogative settings as it encourages suspect agency in settings often characterised by strong power differential and differences in perceived status. *Coordination* refers to the degree to which interactants behaviour is synchronised and according to Abbe and Brandon (2013) this may manifest as synchrony, complementarity or convergence between partners' behaviour. These authors propose a further cognitive dimension, in the form of shared understanding which describes a common mental model of the situation, interactants roles and/or goals for the interaction.

Due to the various interpretations of rapport that exist and the relatively embryonic stage of research which seeks to define its component parts, it does raise the question of how we should observe and measure rapport – specifically within the context of interrogations and human intelligence operations. Many studies (outside of the interrogation literature) that have attempted to do so have used either post-session measurements or in-session observations. Post-session measurement consists of simply asking whether rapport was present (Clarke & Milne, 2001;

Collins, Lincoln, & Frank, 2005). Studies that have aimed to obtain more extensive insight using this approach have also incorporated the 'bond scale' of the Working Alliance Inventory (Sharpley & Ridgway, 1992) and operationalized Tickle-Degnen and Rosenthal's model (Holmberg & Madsen, 2010). Other studies have observed and measured rapport during interview sessions, often by observers coding the degree of perceived rapport every minute (this is specifically evident in the counselling arena; Sharpley & Ridgway, 1992). Despite these efforts to observe and measure rapport, recent reviews indicate that there is a dearth of valid measurement tools to describe rapport or measure its effect in interrogations (Abbe & Brandon, 2013; Vanderhallen & Vervaeke, 2014).

Observing Rapport-Based Interpersonal Techniques (ORBIT) to generate useful information from terrorists

Alison et al. (2013) have recently developed a coding framework that is able to reliably and efficiently measure rapport at a macro level that focuses on the global atmosphere of communication. The ORBIT tool consists of two independent measures: one based on motivational interviewing (MI) skills (Miller & Rollnick, 1992) and the other on the interpersonal behaviour circle (IBC: Leary, 1955). It has achieved a high level of inter-rater reliability and has successfully been used to measure interactions between police interrogators and terrorist suspects and the amount of useful information (yield) generated (Alison et al., 2013). In the following discussion we revisit the conceptual basis of the ORBIT tool, specifically, as it applies to and can impact on terrorist suspect interrogations.

Building rapport through Motivational Interviewing. In a series of studies within the counselling arena Alison et al (2013) highlighted many of the global principles of motivational interviewing (MI) as a key reference point for successful interrogations. Rollnick and Miller (1995) explain that MI is defined as *"a directive, client-centred counselling style for eliciting behaviour change by helping clients to explore and resolve ambivalence"* (p. 25). MI is founded on empathy and autonomy with the therapist engaging with the client through an environment of reflective listening and attentiveness. In particular the therapist must resist the urge to try and change the client, his (or her) behaviours or his (or her) views. The therapist must resist what Miller and Rollnick call the 'righting reflex' – an almost automatic propensity to adjust the client's thoughts feelings or actions. Instead, change needs to come (if the client is contemplating change in the first place) from within. The key then is to provide a permissive environment to allow change. MI skills are used to reflect back the clients' perception of their problems, using the client's own speech and language as a means of clarifying intent. Throughout, the therapist develops an idea of 'where' a client sits on the stages of change continuum (e.g. Prochaska & DiClemente, 1986), what kinds of resistance may emerge, and the client's readiness for change (Martino et al., 2006). MI is fundamentally concerned with helping clients to make a decision to change, by *"resolving ambivalence which is seen as a stumbling block in changing complex, intractable behaviours that have both costs and benefits"* (Moyers, 2014, p358). MI is not a series of tactics 'used' on a client, but rather is a genuine, and relational collaboration between the therapist and client, where clients' ideas about change are drawn out, and the autonomy of the client is emphasised (Miller & Rollnick, 2009). MI has assisted in treating a wide range of problems in health care and therapeutic communities (Barnett, Sussman, Smith, Rohrbach, & Spruijt-Metz, 2012; Erickson, Gerstle, & Feldstein, 2005; Rubak, Sandbaek, Lauritzen, & Christensen, 2005), as well as broader applications in behavioural change (Miller & Rollnick, 2002) and psychological services (Arkowitz, Westra,

Miller, & Rollnick, 2008). Hemphill & Hart (2002) for example, advocate the use of MI for individuals in precontemplation or contemplation stages of change to help foster readiness and willingness to engage in treatment and facilitate progression towards action and maintenance stages of change. More than 200 clinical trials, efficacy reviews, and meta-analyses of MI have been conducted – with nearly all demonstrating the efficacy of MI in the treatment of a range of health problems, including the management of issues as diverse as chronic mental disorder and diabetes, cardiovascular rehabilitation, problem gambling, and substance use disorders (Miller & Rose, 2009). MI has also been observed as effective in business management and retail (Gremier & Gwinner, 2008), education (Braithwaite, Spray, & Warburton, 2011; Reinke, Herman, & Sprick, 2011), and organisational psychology (Harakas, 2013).

Interpersonal Behaviour Circle

The Interpersonal Behaviour Circle (IBC) model is based on Leary and Coffey's (1954) argument that personality should not be considered in isolation but rather in the context of how people relate to one another. As such the IBC can be defined as a dynamic and dyadic model of inter relating in which interactions between individuals can be illustrated by reference to a circular ordering across two dimensions (love-hate and power-submission). Birtchnell's (2002) rearticulation of the IBC was applied within therapeutic settings in which he argued that there were adaptive and maladaptive variants of the circle (thus authority, passivity, challenge and collaboration could be done adaptively or maladaptively). For example, one could challenge someone in a manner which was frank forthright and critical (adaptive) or one could be attacking, punitive, and sarcastic (maladaptive challenge). Further, he argued that effective therapists are interpersonally versatile and can utilize a range of adaptive interpersonal competencies (from cooperative to challenging styles and authoritative to passive styles) dependant on the interaction style of the client (i.e., applying the right style at the right time). That is, effective therapists were conditionally sensitive to the interpersonal requirements of the context within which they were operating. Simpson, Orina, and Ickes (2003) argue that this is a function of one's capacity for empathic accuracy, that is, how well the therapist genuinely understands the client. For more than 50 years variants of Leary's original model have been used to describe dyadic interactions in therapy, emotional states, doctors' interactions with patients, and even interactions between primates (Birtchnell, 2002).

Curiously, though, there have been few efforts to systematically define the skills of effective (vs. ineffective) interpersonal functioning or the relationship between these skills and the very many studies that have illustrated the efficacy of client-centred, rapport based approaches in counselling. Our approach takes a 'skills based' approach to this issue by carefully defining both adaptive and maladaptive variants of interpersonal behaviours and, by reference to these, examining their influence over lengthy sequences of intense and challenging interactions in which there are severe constraints on what might be considered an ideal therapeutic 'positive' environment. This would include situations in which an individual's personal liberty is removed and where, it might be argued, their worldview is diametrically opposed to the individual trying to form a rapport-based interaction.

Further, and consistent with work within the counselling arena rapport appears to be multi-faceted and more than the provision of humanistic, person centred features such as autonomy, acceptance and empathy. Instead, it appears to be strongly mediated by the interpersonal skills of the therapist. Indeed, research indicates that sometimes therapists can commit to a behaviour that might be considered antithetical to humanistic, person centred approaches (i.e., challenging a client's sense of autonomy, being less accepting) if they are

especially interpersonally skilled. Miller and Rollnick also indicate that rapport is not a simple set of 'off the peg' humanistic techniques 'applied' to clients but rather that they require sensitive, adaptative and versatile responses. Moreover, certain therapeutic interactions and the harsh but real circumstances of dealing with individuals that may abuse drugs, or who are violent can frustrate ideal conditions for client-centred approaches. For example, in more extreme cases clients or patients might be contained, potentially against their will in special hospitals. This is in direct conflict with principles of personal choice and autonomy. Alternatively, they find themselves on mandatory programs that are legal requirements (for example conditions that relate to supervised access to children). In such cases it is not possible (nor desirable) to provide fully autonomous choices. This applies to terrorist suspects as they cannot be given complete autonomy in interrogations (they can choose not to talk but they cannot choose to leave and cannot choose not to hear questions). As such, although rapport is a necessary precondition for effective interviewing it is not sufficient. Our aim has been to include in the repertoire of behaviours those interpersonal skills that can impede or facilitate alliances despite some restrictions around humanistic ideals and where there are clear end goals that are in the interest of society more widely (as well as, potentially and ultimately, in the interest of the interviewee).

Thus, the ORBIT approach conceptualises and measures rapport in terms of empathy, open-mindedness, respectfulness and empowerment of the suspect (MI), and also measures interpersonal adaptive and maladaptive interviewing behaviours (IBC). It consists of five global approaches (acceptance, empathy, adaptation, evocation, and autonomy, see Table 1) and the observation of dyadic interactions between interrogator and suspect (and, occasionally their solicitor/attorney if there is sufficient behaviour to work with in regards their legal advisor). Based on the MI literature, the global approaches present ways in which rapport emerges and the coding framework enables a set of measurable categories that allow us to observe whether the skills used to build and sustain rapport have been used. Detailed descriptions are provided in our previous papers but, in essence, each interaction is coded according to all aspects of maladaptive and adaptive behaviour (on the part of suspect and interrogator) as well as whether the MI approaches have been used at all (present/absent) and then whether they have been use effectively (consistent with MI), or ineffectively (inconsistent or contrary to MI).

Table 1 showing simplified definitions and examples of measures used to observe and define rapport (shortened definitions)

Measure	Definition
Acceptance	<p>MI Consistent: The communication of unconditional positive regard/respect for the detainee; it does not mean agreeing with the detainee or condoning or being complicit with their views, behaviours, ideologies or political or religious views. The interviewer must strive to 'see the good' in the detainee as a human-being despite whatever behaviour he/she is suspected of participating in.</p> <p>Inconsistent: The interviewer leaks judgement about the detainee (in terms of guilt, behaviours or ideologies).</p>
Empathy	<p>Consistent: The interviewer makes an effort to understand the detainee's perspective, expressed through reflective listening. Empathy is a strategy that seeks genuine understanding of another person's motives, perspective or position that they find themselves in.</p> <p>Inconsistent: The interviewer makes little or no effort to understand the</p>

detainee's perspective and uses little or no reflective listening. Fails to show any genuine consideration their short, medium or long term situation.

Adaptation	<p>Consistent: The interviewer is able to adapt to responses by the suspect and manage a fluid format, with timeline jumps and deviations from the interview plan. They are able to go along with the chosen topic choices of the suspect albeit recognise when there are distractions or deliberate efforts to move off difficult topics. We commonly refer to effective adaptation as being able to 'follow the rabbit' as opposed to 'chasing a red herring' when a detainee keeps throwing in redundant or already well known information (see section on counter interrogation strategies).</p> <p>Inconsistent: The interviewer is unable to adapt to responses by the suspect and, instead, rigidly sticks to topics that they have planned for. They are unable to go along with the chosen topic choices of the suspect nor recognise when there are distractions or deliberate efforts to move off difficult topics.</p>
Evocation	<p>Consistent: The interviewer is able to draw out the beliefs and views of the detainee rather than imposing their own views, suspicions, or advice. The interviewer is curious and patient and does not 'leak' assumptions about beliefs, thoughts or feelings of the detainee nor of the innocence or guilt of the detainee.</p> <p>Inconsistent: The interviewer is unable to draw out the beliefs and views of the detainee. Instead, they may impose their own views, suspicions, or advice.</p>
Autonomy	<p>Consistent: Interviewer provides personal autonomy for the detainee, including reinforcing their choice to talk or cooperate, their right to legal advice, choice of topics to talk about, and so on. There is an absence of force, coercion or efforts to persuade or influence. The concept is one of 'leaving a door open' rather than trying to force someone through it.</p> <p>Inconsistent: The interviewer provides little or no personal autonomy for the detainee. This may include a formulaic expression of the right to silence alongside efforts to exert control over topics ('we aren't here to talk about that') or behaviours ('you must sit down'). There is an atmosphere of force, coercion, and efforts to persuade influence or rationalise why the suspect/detainee should behave in a particular way. The concept is one of 'shutting doors on the detainee' and trying to force them through it.</p>

Efficacy – what effect, if any, does it have and is it better than more coercive methods?

The following section provides an overview of recent work (Alison et al., 2013; Alison et al., 2014a; 2014b) that has modeled the application of ORBIT to interrogations in operational field settings. This set of studies was the first to break down rapport into both broad approaches to the 'treatment of the detainee' (in terms of acceptance, empathy, adaptation, evocation and autonomy as well as the interpersonal interaction between detainee and interrogator). In addition, and by reference to many discussions with police interrogators, the ORBIT studies operationally defined what constituted a successful interrogation (again, in terms of its component parts) by focusing on (i) increasing engagement from the detainee and reducing disengagement strategies (including 'no comments') and (ii) increasing information and evidentially useful material. As such, these studies measured the extent to which detainees revealed details of people, locations, actions and times as well as the capability, opportunity and motivation for the commission, preparation, or instigation of a terrorist act(s).

Thus, ORBIT has been informed by several interdisciplinary approaches, including political science, psychology, ethics and counselling, with its overarching emphasis on adopting humane, ethically sound, non-coercive and legislatively compliant professional approaches to arrest, custody, interview, and post interview management. Moreover, it is directed at exploring what works in securing information, engagement from suspects and evidence. ORBIT has been informed by a knowledge of: (i) the socio-political errors of the past with respect to the management of detainees (and the negative repercussions of those errors); (ii) the legislative and procedural developments in police interviewing (specifically PACE in the UK, 1984), the so called PEACE, Cognitive Interviewing and Conversation Management Models of 'best practise'; (iii) ethically sound counselling methods that have empirically demonstrated the influence of non-coercive methods of stimulating engagement and generating information as superior to coercive or high pressure tactics (specifically MI) and (iv) so called naturalistic decision making (NDM) approaches in the examination of high stake, complex, ambiguous, real world, multivariate phenomena. The coding framework enables the observation and assessment of the elements that help define rapport (refer back to Table 1) in addition to the interpersonal means by which these are achieved (or not), with respect to their effect on specific outcome variables in the context of investigative interviewing. The ORBIT tool therefore provides a means by which investigative interviewing techniques can be operationally measured, as can their effects on both increasing information and reducing counter interrogation tactics (CITs) used by terrorist suspects. Whilst this does not lend itself to a critical diagnostic evaluation of investigative strategies in generating truthful and false confessions as is enabled by laboratory studies (Meissner et al., 2012) it does provide an ecologically valid view of positive and negative outcomes in real-world field studies and interrogative settings. These outcomes have considerable operational significance and can be used to train police officers and to help them evaluate their own interrogative practises.

ORBIT and MI. When examining the potential efficacy of ORBIT and MI it is important to consider the extent to which ORBIT and MI overlap. There are four elements that overlap directly:

(i) *Goal directed*

MI is goal directed, and is oriented to promoting change in specific target behaviours. ORBIT is also goal directed, with its focus on a search for the truth, achieving best evidence and save life as the key priority (whether that be the detainee's, the officers involved and/or the public) with the 'save life' priority trumping all other directives.

(ii) *Non - accusatory*

MI adopts a non-accusatory challenge approach in response to inconsistencies, ambivalence and discrepancies. Similarly, ORBIT proposes a non-judgmental, non-accusatory approach to challenging inconsistent information (in order to highlight areas worthy of further consideration and to provide a permissive environment for truth telling behaviour).

(iii) *Non-coercive*

MI does not incorporate any form of coercion, force, rational persuasion, manipulation efforts at influence or the exertion of external pressure, but rather enables the generation of internal pressure (where and if it exists) within the client by drawing out incongruent beliefs. Likewise, ORBIT consistent approaches do not seek to manipulate, persuade or coerce but rather provide a permissive environment for internal conflict to emerge (should it exist). This is a key feature since if the truth is that the suspect knows nothing, is not guilty and can provide no information, there will be no perceived pressure. If the suspect is strongly ossified and committed, there will also not likely be a 'result' or much (if any) reduction in disengagement from the interrogation process as well as very little (if any) information forthcoming. Instead, in conditions where the suspect is culpable and has useful intelligence of information and is either ready to talk or ambivalent, then ORBIT related approaches should generate internal pressure to (i) engage with the interrogator, and (ii) discuss pertinent and relevant information.

(iv) *Free choice*

MI accepts that the client has complete free choice in their deliberations around any changes he/she may or may not wish to make. In accordance with investigative interviewing, the interviewee's right to silence entirely implies or acknowledges that any information provided is within the interviewee's own free will and choice. However, within the context of investigative interviews it is incumbent on the interrogator to try and explain the consequences of the detainee deliberately withholding information or lying. For example, the adverse inference clause in the UK indicates that a jury can be asked to consider why a suspect exerted their right to silence in an interview if, and should the case go to court that they then rely on information that they could have explained at the time of the initial interview. Commonly, solicitors/attorneys as a default position (at least in the UK), urge clients to 'no comment' but, in the light of specific evidence, it may actually be in the client's best interests to talk. Interrogators need to take a direct and honest approach in this regard and seek to explain all of these potential consequences.

Why (and When) Does it Work?

Ambivalence. Miller and Rollnick argue that 'ambivalence' is a stage in the process of behavioural change. In the context of terrorist suspect interrogations, we argue that 'ambivalence' could refer both to suspects' deliberation of whether or not to provide information. In turn, the process of ambivalence consists of weighing up the costs and benefits to a decision (decisional balance). By using the examples of a seesaw or balance to illustrate this, Miller and Rollnick suggest that an individual may experience competing motivations when making decisions because costs and benefits are associated with both sides of the conflict. They acknowledge that an individual is not always consciously aware of the decision balancing process, or even if he or she is aware, they will not necessarily proceed towards making rational decisions. When a suspect is questioned, they are faced with a decision of whether or not to share information truthfully (this, if they have any to give). When considering this in the context of innocent suspects then it is important to understand that MI should not generate an increased likelihood of self-incriminating information, because there is no internal ambivalence for the interviewer to work with. Therefore the use of MI is in the best of interest of the suspect. In contrast, if an innocent suspect is

interrogated in such a way that is forceful, they may feel pressure to provide the desired information for the purpose of ending the coercive strategies impinged upon them, and not because they face internal ambivalence. It must therefore be questioned why non-MI strategies are used in interrogations if they are likely to generate an increased likelihood of self-incriminating information. In cases where a suspect is guilty and they are reluctant to provide information, then MI will induce ambivalence. Thus, MI will not increase a greater likelihood of confession unless it is already an internal cognition. The use of approaches that do not treat suspects with respect and morality, ultimately do not encourage the autonomy of the suspect and do not attempt to empathize with the suspect. Such approaches will inevitably shut suspects down and gives them little choice but to stay silent or deny involvement. MI is wedded to the idea of autonomy (albeit constrained with terrorist suspects), and this includes the suspects' right to silence as well as their right to speak. So, it may be the case that some suspects wish to say nothing. It is important to highlight here that the use of MI in police interrogations moves away from coercive interrogation methods, which we shortly touch upon.

Reactance. Miller and Rollnick argue that when the idea of change is forced upon an individual, it is not uncommon for them to engage in the 'problem behaviour' to a much greater extent in order to exert their freedom. *Reactance* is key here, because the harder the therapist/interviewer 'pushes' the client/suspect into providing information when they are not motivated to do so, this elicits 'pushback' and resistance (Moyers, 2014). Therefore we consider that an oppressive and coercive interrogation would encourage resistance. We argue that there is no need for oppressive methods to be used as a way in which to encourage resistance because if the suspect has any information to divulge, internal ambivalence will already be present from the moment the suspects enters the interview room and MI aims to resolve such ambivalence.

Not all suspects will provide the desired information as a means by which to end the coercive interrogation (irrespective of whether they are guilty or not), but rather it is expected that many suspects will be good at resisting if they have been carefully selected and trained by their organisation to strongly resist (Hoffman, 2006). It is possible that innocent suspects may be perceived as good resisters even if they have nothing to hide. It is also possible that trying to exert coercive strategies for 'being unwilling to change' or not providing any intelligence may increase the attractiveness of this problematic behaviour to the suspect (Psychological Reactance Theory; Brehm & Brehm, 1981). Getting 'stuck' in ambivalence can be difficult to resolve without facilitation, and importantly, resolving ambivalence is critical to change. However, any attempts to force resolution in a particular direction can actually strengthen the behaviour and response that was intended to be diminished. We argue, that using MI will facilitate the interviewer in resolving this ambivalence

The terrorist mind set

Academics from a variety of disciplines have written about the terrorist mind set. Although Victoroff and Adelman (2012) caution that this research literature lacks empirical data and rigorous analytical procedures they nevertheless argue that it provides a sound starting point for considering why individuals resort to political violence. Victoroff and Adelman (2012) provide a classification and critical review of approaches to the psychology of terrorism which includes individuals factors (including theories drawn from both abnormal and normal psychology), group dynamics and socio-political factors. As such, there are a wealth of theoretical frameworks which can be drawn upon for fertile application to the present discussion, specifically, factors which help us to understand why and when ambivalence or reactance may occur in interrogative settings. Our position is that terrorists may be more ambivalent about what they have done or wish to do and

may actually be far less ossified than we may think. In addition, coercive interrogative strategies are likely to ossify them more.

As a starting point we would challenge the view, espoused via the media, of the fanatic who is unwilling to share information with interrogators whatever the personal cost to themselves for the benefit of the greater good. Whilst qualitative analysis of terrorist biographies or interviews reveal limited narratives which serve to justify political violence (e.g. Sarangi and Alison, 2005) it is difficult to isolate individual views from socio-political discourse. As researchers we have very little access to what or how individuals' *really* think. The research evidence does not however support the view of fanatics, but rather that many members of organised terror groups are 'normal people' (Silke, 1998).

Rational choice perspectives have been applied to terrorism and whilst their suitability in explaining why someone becomes a terrorist is challenged (as terrorism is such a low base rate activity) Victoroff (2005) argues such approaches can help provide a theoretical framework for understanding terrorist decision making in various conditions. For example, game theoretical approaches such as Sandler and Arce (2003) shed light on strategic choices that are made in everyday terrorist decision making as rational responses to perceived constraints. These authors outline the strengths of modern game theory for revealing factors theoretically underlying terrorist behaviour. For example, game theory (i) helps discover the strategic implications when each side acts according to its 'best guess' about how the other side thinks, (ii) incorporates the impact of threats and promises for each side, (iii) takes advantage of the observation that 'players' tend to maximise goals subject to constraints, (iv) helps predict outcomes in bargaining over demands, and (v) acknowledges the impact of uncertainty or incomplete information on all of the above. Such strategic choices can be applied to the microeconomic level, including terrorists' decision making in interrogative settings. We argue that rapport building approaches which encourage empathy and autonomy and have information sharing as the primary interrogative goal will radically shift suspects' perceptions of interview constraints and enable terrorists to reassess their personal goals within interrogative settings. Further, these approaches may positively challenge terrorists' 'best guess' about how interrogators think, will help interrogators identify factors influencing suspects' strategic choices, enable interrogators to examine areas of uncertainty or misinformation, and therefore potentially influence suspects' perception of threats and promises in interrogative settings. According to rational choice perspectives, short termist thinking or impulsive behaviour (which may apply particularly to younger terrorist suspects) is also analysed at a microeconomic level (e.g. Cornish and Clarke, 1987). Thurman & Mullins (2011) observed that some terrorists are unable to model the future very well and have a degree of impulsivity that prevents them from appreciating alternative strategies, which may help them to express their grievances. Rapport building approaches are likely to help terrorists review their goals whereas coercive interrogations may limit such opportunities.

Individual and group factors are also likely to influence strategic choices made during interrogative settings. Contemporary aetiological thinking focuses on 'vulnerabilities' to terrorism which may be viewed as 'factors that point to some people having a greater openness to increased engagement than others' (Horgan, 2005, p101). Borum (2010) refers to these vulnerabilities as possible sources of motivation or as mechanisms for acquiring or hardening one's ideology and that three commonly occurring vulnerabilities are (i) perceived injustice/humiliation, (ii) need for identity, and (iii) need for belonging (Borum, 2004). These vulnerabilities find support from a variety of theorists and researchers (see Victoroff, 2005; and Victoroff & Adelman, 2012 for an excellent critical review). Coercive interrogation strategies will arguably cause reactance and increased CITs in terrorist suspects whose motivation stems from perceived injustice as coercive strategies may heighten a suspects' sense of injustice or humiliation and serve to ossify individuals

even further. In contrast, rapport based approaches will more likely enable interviewees to assess perceived injustice/humiliation particularly as they may relate to ambivalence or perceived costs and benefits of cooperating with interrogators. Further, Vanderhallen and Vervaeke (2014) make the point that psychologists should invest time in understanding the individual circumstances of terrorism cases as in some countries individuals experience coercive pressure towards terrorism. Such individuals may perceive injustice/humiliation at the hands of their terrorist group as well as their interrogators. As such, these individuals are likely to experience complex ambivalence towards sharing or not sharing information with interrogators. Coercive interrogative strategies may miss opportunities to examine these internal conflicts in interrogative settings. Social identity theory and related perspectives (e.g. Grant & Brown, 1995; Tajfel & Turner, 1979) provide a theoretical springboard which helps highlight the importance of in and out group identities in driving collective political action. Crenshaw (1988) argues that active terrorists are often initially attracted to the group rather than to an abstract ideology or to violence. For those individuals who gain a sense of identity or belonging through terrorist group membership coercive interrogative strategies are likely to reinforce an individuals' group identity and polarize in and out group differences. As such, an interrogator's failure to demonstrate empathy or active listening may represent a failed opportunity to challenge perceived group differences that suspects have developed through experience, recruitment and radicalisation.

In summary, we argue that rapport building strategies that focus on information sharing increase opportunities for internal conflicts or ambivalence to be revealed during interrogative settings. Whereas coercive strategies, which aim to increase anxiety in interrogative settings, may serve to cement terrorist ideology further. Such approaches aim to reveal anxiety based cues to deception but these may not be as effective if terrorists are trained for interrogation, and have psychological processes (such as in and out group identity formation) built up against sharing information. Failures to demonstrate empathy, active listening and encourage autonomy may mean that out group identities are polarized and suspects become more rigid and less co-operative. Whilst this represent a first attempt to examine how aetiological models may interact with interrogative style and outcomes we believe this is a fruitful avenue for future research and would encourage further theoretical and empirical development in this area.

Why coercion does not work

The importance of many of the significant reforms to interviewing practise in the UK have been a response to a number of key national and international cases that have generated debate and discussion on the legitimacy of torture or coercion for the 'greater good'. The use of coercive strategies within the context of interviewing terrorist suspects has become highly debateable, particularly due to the professional and moral issues raised and its efficacy for eliciting relevant and reliable information. In order to further articulate why rapport is effective in interrogations, we need to reflect upon how coercive interrogation practices have taken precedent and why rapport can address the limitations and challenges of coercion.

Coercive interrogations challenged. Coercive, heavy handed practises are founded on the provocative 'philosophical/quasi moral' view that the abuse of one individual is worth it in order to save the lives of many. However, the current battle with terrorist threats from militant Islamist organisations has elicited a re-evaluation of safeguarding and police practices in suspect interviewing. For example, the failure of the UK government to extradite Abu Qatada (2012) was due to the way in which the extradition was called into question. Specifically, it was argued that the evidence used to support the crimes for which Qatada was convicted of in Jordan was

obtained through the use of torture. Other notable cases include the rendition of Abdul Hakim Belhadj (who took legal action against the UK government for the barbaric treatment and illegal rendition of his pregnant wife and himself after they had sought asylum in the UK) to Libya in 2004 and the case of the Tipton Three (2004). In the latter case, the allegation was that British authorities were aware of and were culpable for their treatment at Guantanamo Bay prison. The suspects were allegedly subjected to torture and mistreatment, which resulted in them making false confessions. After an assessment of their interrogations, the three men were repatriated to the UK and released without charge the following day. Such cases and others documented at Abu Ghraib (2004) have led to negative, long lasting effects and effective propaganda for terrorist ideologies. Furthermore, there has been no evidence to suggest that such techniques obtained any significant 'lifesaving' intelligence. There is also the emerging view that the Central Intelligence Agency (CIA) may redact previous claims that these 'enhanced' interrogation practises (which some claim are simply thinly veiled excuses for torture) were effective. Other keynote UK cases include the investigation of IRA related terrorism, the Birmingham Six, Guildford Four, and the Maguire Seven (1975), in addition to the detention and interrogation of Binyam Mohammed (Lankford, 2009). One of the most contested cases to date concerns the techniques used to obtain the intelligence that enabled the materialization of 'Operation Neptune Spear' (which resulted in the death of Osama bin Laden). It was reported that the 'best' intelligence that led to discovering bin Laden was in fact gathered through standard non-coercive means from a CIA detainee. The enhanced interrogation techniques that were used on Khalid Sheikh Mohammed, who was presumed to begin the trail to discovering bin Laden, had actually produced false and misleading information (Mukasey, 2011).

Coercion has become a part of the interrogation process in countries such as the US, with the purpose of obtaining valuable information from a suspect. However, the use of coercion poses ethical and morally challenging concerns, particularly as using coercive strategies could easily get out of control (Costanzo & Gerrity, 2009). Furthermore, many survivors of torture explain that they intentionally provide false information in order to stop the torture (Harbury, 2005; Mayer, 2005). This suggests a different motivation for which an individual will share information and this should challenge the use of coercive strategies in interrogations. It would appear that securing a false confession sometimes holds priority, above and beyond both the welfare of the suspect and gaining accurate and truthful evidence.

Why coercion misses the point. Building upon the controversial issues related to the historical cases mentioned, we now consider why coercion is inappropriate and ineffective in an interrogation. Recent research has compared the efficacy of accusatorial methods in suspect interrogations to information-gathering methods in generating true and false confessions. Accusatorial and coercive methods (used in the US) employ techniques such as psychological manipulation, closed questions, and gaining control in order to obtain a confession from a suspect. In contrast, information-gathering methods (used in the UK) uses direct positive confrontation, exploratory questions, and seeks to establish rapport in order to obtain information in an investigative interview (Evans et al., 2013). Notably, Meissner, Redlich, Bhatt, and Brandon (2012) conducted meta-analytic comparisons of both techniques in 5 field studies and 12 experimental studies. It was found that in the field studies, both approaches were more likely to elicit a confession from suspects in comparison to direct questioning methods. However amongst laboratory studies, information gathering approaches led to more true confessions and fewer false confessions in comparison to accusatorial methods. Although there was a small sample of both field and laboratory studies, Meissner et al. (2012) recommended that law enforcement agencies should consider adopting information-gathering approaches to interrogation. Research with

convicted offenders has also revealed that when interviewed using a more humanitarian approach, offenders are more likely to confess (Holmberg & Christianson, 2002). In a recent empirical evaluation of intelligence-gathering interrogation techniques advocated by the United States Army Field manual, Evans et al. (2014) found that positive and negative emotional approaches significantly increased the information provided by guilty and innocent participants in comparison to a direct approach. Specifically though, a negative emotional approach provoked an increase in anxiety and encouraged a negative perception of the interrogator. However, positive emotional approaches strengthened a good relationship between suspect and interrogator and encouraged information elicitation. This finding therefore supports the role that coercive strategies can *impair* the cooperation and communication between the suspect and interviewer.

Terrorist suspects called into question will either be guilty or innocent, and in light of the fact that the interrogation process is meant to obtain information that may lead to the rightful conviction of a guilty suspect, using coercive strategies (often through long and unpleasant interrogations as a way to gain information) needs to be challenged. The interrogation process should not be made part of a 'punishment' that suspects may receive as a result of a later conviction (which may be just or unjust). Even if the interrogator does not view coercion as punishment, the fact that there are physical and psychological consequences should question this. It would appear that the goal and purpose of both the interrogation and use of coercion is questionable in light of the fact there may be non-coercive means by which to support the purpose of the interrogation (we argue that this is rapport). If coercion is or becomes even remotely a fulfilment of overcoming powerlessness or an act of revenge, or is even perceived to be, then this also strengthens the argument for why coercion should be eliminated from the interrogation process.

Application - what critical issues emerge when applying rapport based approaches to terrorist suspect interrogations? Once identified, can interrogators be trained in rapport based methods?

Implications for human intelligence practices

Suspects who have information to share will face internal ambivalence because they will have to make a decision of whether or not to share information in light of any pressures they face from their terrorist group. Perhaps suspects' knowledge of CITs prior to the interview assists them in managing their decisional balance because they have anticipated what tactics they will use when questioned. The fact that suspects use CITs (Alison et al., 2014a) suggests that there is some expectation of what the interrogation procedure will look like. In turn, using coercive (non-MI) approaches in interrogations may encourage terrorist groups to reconsider the extent in which they will cooperate with law enforcement agencies in the future. Law enforcement agencies that permit the use of coercive strategies do need to consider the repercussions of using coercion not only for the outcome of the interviews, but also for the way in which terrorist groups may act in the future. It is imperative that interviewers use the method that teases out the information in the best way possible in order to address suspects' internal ambivalence. Upon reflection it would appear that the use of coercion may encourage resistance amongst suspects, and this could lead to suspects' persistent use of CITs and low yield may be generated. Therefore we question the use of coercive approaches altogether when it not only can accumulate inaccurate information but also raises many moral, ethical, and legal concerns.

With regard to what implications MI has for interview/interrogation training, it is critical to acknowledge that police officers should be trained to understand the interaction between themselves and the suspect at a macro level. We are not advocating the use of an MI approach as procedure that claims to 'work', but rather there may be certain phases in an interview where developing rapport is particularly important, and can be achieved in different ways depending on the suspect's motivations. It is critical that MI is appropriately used within an approach of being interpersonally competent. Furthermore, using and understanding MI within the context of suspect interrogations needs to be considered in light of the constraints of policing and the interrogation processes which sit within legal frameworks.

As recognised earlier, many police officers may be implicitly incorporating MI skills; however providing MI training to police officers may reinforce effective interviewers to become more aware of the skills that they do use to build rapport with suspects. Moreover, it is critical that they are made aware of how using maladaptive tactics may be detrimental even if MI is used to build rapport; this needs careful consideration as suspects may be interviewed multiple times (Alison et al., 2014b). The research surrounding CITs provides valuable insights into the motivations and types of tactics that terrorist suspect groups may adopt, and police training should consider developing police officers' understanding of CITs as they are trained on how to build rapport using MI amongst terrorist suspects.

References

- Abbe, A., & Brandon, S. E. (2013). The role of rapport in investigative interviewing: A review. *Journal of Investigative Psychology & Offender Profiling*, 10, 237–249.
- Alison, L., Alison, E., Elntib, S., & Noone, G. (2012). *Educating information through interpersonally competent interviewing: An assessment tool for coding interviews with high value suspects. Coding manual*. Internal Document.
- Alison, L., Alison, E., Noone, G., Elntib, S., & Christiansen, P. (2013). Why tough tactics fail and rapport gets results: Observing rapport-based interpersonal Techniques (ORBIT) to generate useful information from terrorists. *Psychology, Public Policy, & Law*, 19(4), 411–431. <http://dx.doi.org/10.1037/a0034564>.
- Alison, L., Alison, E., Noone, G., Elntib, S., Waring, S., & Christiansen, P. (2014a). Whatever you say, say nothing: Individual differences in counter interrogation tactics amongst a field sample of right wing, AQ inspired and paramilitary terrorists. *Personality & Individual Differences*, 68, 170-175. doi: 10.1016/j.paid.2014.04.031.
- Alison, L., Alison, E., Noone, G., Elntib, S., Waring, S., & Christiansen, P. (2014b). The efficacy of rapport based techniques for minimizing counter interrogation tactics amongst a field sample of terrorists. *Psychology, Public Policy, & Law*. <http://dx.doi.org/10.1037/law0000021>.
- Arkowitz, H., Westra, H. A., Miller, W. R., & Rollnick, S. (2008). *Motivational interviewing in the treatment of psychological problems*. New York: Guilford Press.
- Barnett, E., Sussman, S., Smith, C., Rohrbach, L. A., & Spruijt-Metz, D. (2012). Motivational Interviewing for adolescent substance use: A review of the literature. *Addictive Behaviors*, 37, 1325-1334.
- Birtchnell, J. (2002). Psychotherapy and the interpersonal octagon. *Psychology & Psychotherapy: Theory, Research & Practice*, 75, 349–363.
- Borum, R. (2004). *Psychology of Terrorism*. Tampa, FL: University of South Florida.

- Borum, R. (2010). Understanding Terrorist Psychology. *The Psychology of Counter terrorism*. Andrew Silke (ed). Oxon, UK: Routledge, 2010. Available at: http://works.bepress.com/randy_borum/45
- Braithwaite, R., Spray, C. M., & Warburton, V. E. (2011). Motivational climate interventions in physical education: A meta-analysis. *Psychology of Sport and Exercise*, 12, 628-638.
- Brehm, S. S., & Brehm, J. W. (1981). *Psychological Reactance: A Theory of Freedom and Control*. Academic Press.
- Caproni, V. E. (2008, June 10). Federal Bureau of Investigation statement before the Senate Committee on the Judiciary. Washington, DC.
- Clarke, C., & Milne, R. (2001). *National evaluation of the PEACE investigative interviewing course*. Police Research Award Scheme Report No. PRAS/149. London: Home Office.
- Collins, R., Lincoln, R., & Frank, M. G. (2005). *The need for rapport in police interviews*. *Humanities & Social Sciences papers*. Robina: Bond University.
- Constanzo, M. A., & Gerrity, E. (2009). The effects and effectiveness of using torture as an interrogation device: Using research to inform policy debate. *Social issues & policy review*, 3(1), 179-210.
- Cordes, B. (1987). When Terrorists Do the Talking: Reflections on Terrorist Literature. *Journal of Strategic Studies*, 10(4), 150-171.
- Cornish, D., & Clarke, R. (1987). Understanding crime displacement: An application of rational choice theory. *Criminology*, 25(4), 933.
- Crenshaw, M. (1988). The subjective reality of the terrorist: Ideological and psychological factors in terrorism. In R. O. Slater, and M. Stohl (Eds.), *Current Perspectives in International Terrorism*. Basingstoke, Hampshire: Macmillan.
- Dixon, D. (2009). From criminal justice to control process: Interrogation in a changing context. In R. Bull, T. Valentine, & T. Williamson (Eds.), *Handbook of Psychology of investigative interviewing. Current developments and future directions* (pp. 91–108). Chichester: Wiley-Blackwell.
- Dreher, A., Gassebner, M., & Siemers, L. H. (2010). Does terrorism threaten human rights? Evidence from panel data. *Journal of Law and Economics*, 53, 65–93. doi:10.1086/596021
- Erickson, S. J., Gerstle, M., & Feldstein, S. W. (2005). Brief interventions and motivational interviewing with children, adolescents, and their parents in pediatric health care settings. *Archives of Pediatrics*, 159, 1173–1180.
- Evans, J.R., Houston, K.A., Meissner, C.A., Ross, A.B., LaBianca, J.R., Woestehoff, S.A., & Kleinman, S.M. (2014). An empirical evaluation of intelligence-gathering interrogation techniques from the United States Army Field Manual. *Applied Cognitive Psychology*. Doi: 10.1002/acp.3065.
- Evans, J., Meissner, C., Ross, A., Houston, K., Russano, M., & Horgan, A. (2013). Obtaining guilty knowledge in human intelligence interrogations: Comparing accusatorial and information-gathering approaches with a novel experimental paradigm. *Journal Of Applied Research In Memory And Cognition*, 2(2), 83-88. doi:10.1016/j.jarmac.2013.03.002.
- Gelles, M. G., McFadden, R., Borum, R., & Vossekuil, B. (2006). Al-Qaeda-related subjects: A law enforcement perspective. In T. Williamson (Ed.), *Investigative interviewing. Rights, research, regulation* (pp. 23–41). Cullompton: Willan Publishing.
- Gore, J., Banks, A., Millward, L., & Kyraikidou, O. (2006). Naturalistic decision making: Reviewing pragmatic science. *Organization Studies*, 27(7), 925-942.
- Grant, P., & Brown, R. (1995). From ethnocentrism to collective protest: responses to relative deprivation and threats to social identity. *Social Psychology Quarterly*, 58, 195-212.

- Gremler, D. D., & Gwinner, K. P. (2008). Rapport-building behaviors used by retail employees. *Journal of Retailing*, 84(3), 308-324.
- Harakas, P. (2013). Resistance, Motivational Interviewing, and Executive Coaching. *Consulting Psychology Journal: Practice and Research*, 65(2), 108-127.
- Harbury, J. K. (2005). *Truth, torture, and the American Way*. Boston: Beacon Press.
- Hemphill, J. F., & Hart, S. D. (2002). Motivating the unmotivated: Psychopathy, treatment and change. In M. McMurrin, *Motivating offenders to change: A guide to enhancing engagement in therapy* (pp. 193-219). Chichester: Wiley.
- Hoffman, B. (2006). *Inside Terrorism*. New York: Columbia University Press.
- Holmberg, U. (2004). *Police interviews with victims and suspects of violent sexual crimes: Interviewee's experiences and outcomes*. Stockholm: Stockholm University, Department of Psychology.
- Holmberg, U., & Christianson, S. (2002). Murderers' and sexual offenders' experiences of police interviews and their inclination to admit or deny crimes. *Behavioral Sciences & the Law*, 20, 31-45.
- Holmberg, U., & Madsen, K. (2010, June). *Humanity and dominance in police interviews: causes and effects*. Paper presented at the 4th International Investigative Conference. Brussels.
- Horgan, (2005). *The Psychology of Terrorism*. London: Taylor and Francis.
- Kassin, S. M., Goldstein, C. J., & Savitsky, K. (2003). Behavioral confirmation in the interrogation room: On the dangers of presuming guilt. *Law & Human Behavior*, 27, 187-203.
- Lankford, A. (2009). *Human killing machines: Systematic indoctrination in Iran, Nazi Germany, Al Qaeda, and Abu Ghraib*. Lanham, MD: Lexington Books.
- Leary, T. F. (1955). The theory and measurement methodology of inter-personal communication. *Psychiatry: Journal for the Study of Interpersonal Processes*, 18, 147-161.
- Leary, T. F., & Coffey, H. S. (1954). The prediction of interpersonal behavior in group psychotherapy. *Group Psychotherapy*, 7, 7-51.
- Martino, S., Ball, S. A., Gallon, S. L., Hall, D., Garcia, M., Ceperich, S., Farentinos, C., Hamilton, J., & Hausotter, W. (2006). *Motivational interviewing assessment: Supervisory tools for enhancing proficiency*. Salem, OR: Northwest Frontier Addiction Technology Transfer Center, Oregon Health and Science University.
- Mayer, J. (2005). *The Gitmo experiment*. Retrieved April 3, 2006, from www.newyorker.com.
- McAndrew, C., & Gore, J. (2013). Understanding preferences in experience-based choice: A study of cognition in the 'wild'. *Journal of Cognitive Engineering and Decision Making*, 7(2), 179-197.
- Meissner, C. A., Redlich, A. D., Bhatt, S., & Brandon, S. E. (2012). Interview and interrogation methods and their effects on true and false confessions. *Campbell Systematic Reviews*, 13, 1-53. <http://dx.doi.org/10.4073/csr.2012.13>
- Miller, W. R., & Rollnick, S. (1992). *Motivational interviewing: Preparing people to change addictive behavior*. New York: Guilford Press.
- Miller, W. R., & Rollnick, S. (2002). *Motivational Interviewing: Preparing People for Change*. New York: Guilford Press.
- Miller, W. R., & Rollnick, S. (2009). Ten things that Motivational Interviewing Is Not. *Behavioural & Cognitive Psychotherapy*, 37, 129-140. doi:10.1017/S1352465809005128
- Miller, W. R., & Rose, G. S. (2009). Toward a Theory of Motivational Interviewing. *American Psychologist*, 64(6), 527-537. doi:10.1037/a0016830
- Moyers, T. B. (2004). History and happenstance: How motivational interviewing got its start. *Journal of Cognitive Psychotherapy*, 18, 291-298.

- Moyers, T. B. (2014). The Relationship in Motivational Interviewing. *Psychotherapy*, 51(3), 358–363.
- Moyers, T. B., Martin, T., Houck, J. M., Christopher, P. J., & Tonigan, J. S. (2009). From in-session behaviors to drinking outcomes: a causal chain for motivational interviewing. *Journal of Consulting and Clinical Psychology*, 77, 1113–1124.
- Mukasey, M. B. (2011). The Waterboarding Trail to bin Laden. *Wall Street Journal*, 6 May.
- Orasanu, J., & Connolly, T. (1993). The reinvention of decision making. In G. A. Klein, J. Orasanu, R. Calderwood, & C. E. Zsombok (Eds.), *Decision making in action: Models and methods* (pp. 3–20). Norwood, NJ: Ablex.
- Police and Criminal Evidence Act. (1984). *Code C: Code of Practice for the detention, treatment and questioning of persons by police officers*.
- Prochaska, J. O., & DiClemente, C. C. (1986). Toward a comprehensive model of change. In W. R. Miller, & N. Heather, *Addictive behaviours: Processes of change* (pp. 3–27). New York: Plenum Press.
- Reinke, W. M., Herman, K. C., & Sprick, R. S. (2011). *Motivational interviewing for effective classroom management: The classroom check-up*. Guilford: Guilford Press.
- Roberts, K. A. (2011). Police interviews with terrorist suspects: Risks, ethical interviewing and procedural justice. *The British Journal of Forensic Practice*, 13(2), 124–134.
- Rogers, C. R. (1957). The necessary and sufficient conditions for therapeutic personality change. *Journal of Consulting Psychology*, 21, 95–103.
- Rollnick, S., & Miller, W. R. (1995). What is motivational interviewing? *Behavioural and Cognitive Psychotherapy*, 23, 325–334. doi: 10.1017/S135246580001643X
- Rubak, S., Sandbaek, A., Lauritzen, T., & Christensen, B. (2005). Motivational Interviewing: A systematic review and meta-analysis. *British Journal of General Practice*, 55, 305–312.
- Sandler, T., & Arce, D. (2003). Terrorism and game theory. *Simulation & Gaming*, 34, 319–337.
- Sandoval, V. A., & Adams, S. H. (2001). Subtle skills for building rapport: Using neuro-linguistic programming in the interview room. *FBI Law Enforcement Bulletin*, 1–5.
- Sarangi, S., & Alison, L. (2005). Life Story Accounts of Left Wing Terrorists in India. *Journal of Investigative Psychology and Offender Profiling*, 2, 69–86 (2005)
- Schneider, S. L., & Shanteau, J. (2003). *Emerging Perspectives on Judgement and Decision Research*. Cambridge: Cambridge University Press.
- Sharpley, C., & Ridgway, I. (1992). Development and field-testing of a procedure for coached clients to assess rapport during trainees' counselling interviews. *Counselling Psychology Quarterly*, 5, 149–160.
- Shawyer, A., Milne, B., & Bull, R. (2009). Investigative interviewing in the United Kingdom. In T. Williamson, B. Milne, & S. P. Savage (Eds.), *International developments in investigative interviewing* (pp.24–38). Devon, UK: Willan Publishing.
- Silke, A. (1998). Cheshire-cat logic: the recurring theme of terrorist abnormality in psychological research. *Psychology, Crime & Law*, 31, 553–71.
- Simpson, J. A., Orina, M. M., & Ickes, W. (2003). When accuracy hurts, and when it helps: A test of the empathic accuracy model in marital interactions. *Journal of Personality and Social Psychology*, 85, 881–893. doi:10.1037/0022-3514.85.5.881
- Stanton, N. A., Wong, W., Gore, J., Sevdalis, N., & Strub, M. (2011). Critical thinking. *Theoretical Issues in Ergonomics Science*, 12(3), 204–209.
- Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W.G. Austin, and S. Worchel (eds). *The Social Psychology of Intergroup Relations*. Monterey, CA: Brooks-Cole, 94–109.

- Thurmann, Q., C., & Mullins, W., C (2011). The etiology of terrorism: theory, data, and methods. In B. Forst., J. R. Greene., and J.P. Lynch (Eds.), *Criminologists on Terrorism and Homeland Security* (pp. 40-65). New York: Cambridge University Press.
- Tickle-Degnen, L., & Rosenthal, R. (1990). The nature of rapport and its nonverbal correlates. *Psychological Inquiry*, 1(4), 285–293.
- Treasure, J. (2004). Motivational Interviewing. *Advances in Psychiatric Treatment*, 10, 331-337. doi: 10.1192/apt.10.5.331
- United Nations. (1984, 1987). *Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment*. Retrieved May 7, 2008, from www.ohchr.org/english/law/cat.htm.
- Vallano, J. P., & Schreiber Compo, N. S. (2011). A comfortable witness is a good witness: Rapport building and susceptibility to misinformation in an investigative mock-crime interview. *Applied Cognitive Psychology*, 25, 960–970. doi:10.1002/acp.1789
- Vanderhallen, M., & Vervaeke, G. (2014). Between investigator and suspect: The role of the working alliance in investigative interviewing. In R. Bull (Eds.), *Investigative interviewing*, (pp. 63-90). New York: Springer.
- Victoroff, J. (2005). The mind of the terrorist: a review and critique of psychological approaches. *Journal of Conflict Resolution*, 49, 3-12.
- Victoroff, J., & Adelman, J. (2012). Why do individuals resort to political violence? Approaches to the psychology of terrorism. In M. Breen-Smyth (ed), *Ashgate Research Companion to Political Violence*, (PP.137-168). Ashgate Publishing Ltd.
- Willshire, D., & Brodsky, S. L. (2001). Toward a taxonomy of unwillingness: Initial steps in engaging the unwilling client. *Psychiatry, Psychology, and Law*, 8, 154–160.



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Social Identity and the Perceived Effectiveness of Interrogation Methods

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Abstract

To date, research on interrogation has not given much attention to how social and cultural forces possibly influence the interactions between interrogator and detainee. In this paper, we applied the principles of Social Identity Theory (SIT) to explore interrogators' perceptions of how effective various interrogation methods are with detainees who are similar to themselves (i.e., in-group members) versus those who are dissimilar (i.e., out-group members). The social identity characteristics measured were culture, language, gender, and age. Using a sample of 225 interrogators and investigative interviewers from 10 countries who participated in an anonymous online survey, we found support for our hypothesis that interrogators were significantly more likely to report interrogation methods (defined as the six domains of Kelly et al.'s (2013) interrogation taxonomy) as being 'very effective' with in-group detainees than with out-group detainees. Additionally, we found that interrogators who reported higher levels of effectiveness and comfort with detainees from other cultures were significantly less likely to demonstrate in-group bias. Implications for practice and future research were considered.

Keywords: *Human intelligence; interrogation methods; perceived effectiveness; interrogation domains*

Introduction

In the course of questioning uncooperative individuals who are suspected of having been party to criminal or terroristic plots and organizations, an understanding of the role of social and

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cultural differences between interrogator and detainee¹ have on their interactions is of paramount importance. It cannot be assumed that the effectiveness of interrogation methods will be the same when the interrogator and detainee are from similar backgrounds as when they are from different ones. More fundamentally, it is unknown whether interrogators employ the same methods, or perceive them to be effective, when the detainee is like them or not like them. The transnational nature of intelligence gathering leads to an increased likelihood that interrogators and detainees will be from different cultures, though a paucity of research exists on this matter. The present study sought to establish a baseline understanding of the phenomenon of cross-cultural interrogation using an international sample of criminal law enforcement and military/human intelligence (HUMINT) interrogators.

A framework that will help to explore the relationship between interrogators and detainees in this manner is Social Identity Theory (SIT; Tajfel & Turner, 1979; 1986). SIT posits that the actions of individuals are partially determined by the nature of the group to which they identify (Hopkins & Reicher, 2011). Based on this theory, interactions are influenced by the social characteristics of the participants and vary depending on whether the individuals are the same or similar (henceforth, in-group) or are different from another (out-group). The theory, we contend, broadens our understanding of the interrogative process to include the social and cultural influences on the dynamic between interrogator and detainee. Further, applying the principles of SIT can assist in describing and explaining the methods interrogators perceive to be effective in their efforts to collect information and intelligence from human sources.

The SIT framework has been applied to an analogous area of research focused on how interactions between criminal justice system actors and the public are shaped by perceived similarities and differences in social identity (Jacques & Rennison, 2012; Koons-Witt & Schram, 2006). This research has demonstrated that similarities and differences can influence the way in which the law is carried out, specifically that out-group members are subjected to differential treatment by justice system officials. Given the power differential between, for example, correctional officers and inmates (Haney & Zimbardo, 1998), we have good reason to suspect that similar dynamics may emerge when interrogators and detainees are examined. It is thus critical to understand how social and cultural differences affect the interrogation of out-group members because of the high probability that interrogators and detainees will be from different social groups. As a practical matter, these differences could have implications on what methods are employed in the course of eliciting reliable information and how successful the interrogator is to this end. In this study, we analyzed interrogators' perceptions of the effectiveness of various interrogation methods when the detainee is from similar or different backgrounds in an attempt to contribute to the literature a preliminary understanding of if (and how) social and cultural factors influence information elicitation.

Social Identity Theory

According to SIT, individuals' identities are tied to their social and environmental connections which form what they consider their social group (e.g., ethnicity, nationality, religion,

¹ For consistency, we use the terms "interrogator" and "detainee" throughout the manuscript but in the most generic sense possible. We broadly define interrogation as the act of eliciting information from an individual who is thought to be in possession of information deemed valuable by the interrogator. Additionally, we acknowledge the possible connotations readers may attribute to these terms, but we believe that interviewer, operator, or investigator and source, suspect, or target could also apply to the present research. There is certainly merit to having an open debate about the appropriateness of using the terms in this manner, though this goes well beyond the scope of this article.

etc., Hogg & Abrams, 1988; Hopkins & Reicher, 2011). Much of SIT scholarship focuses on intergroup dynamics – that is, how people come to see themselves as being part of one group vis-à-vis those in another (i.e. in-group versus out-group), and the social and behavioral outcomes associated with this self-identification process (Turner, Hodd, Oakes, Reicher, & Wetherell, 1987). Identification with an in-group member involves self-stereotyping – people’s belief that they share characteristics representative of the in-group – and produces favoritism toward the in-group member. Conversely, stereotypes of out-group members generally highlight the negative characteristics thought to characterize a category of people and tend to bias behavior against members of this category. The negative effects of interactions between in-group versus out-group members may be further compounded by the power differential that can exist between groups (e.g., wealthy versus poor). In these situations, an in-group member, who also has the position of power, may use this point of advantage to exert an extreme or harsh response or action towards an out-group member (Katz, 1988; Sollund, 2007).

Over the course of time, studies involving SIT have investigated the underlying forces (e.g., cognitive processes) which have led to negative intergroup dynamics (e.g., discrimination and violence (Hopkins & Reicher, 2011; Oldmeadow & Fiske, 2010). This research has shown patterns of disparities in treatment and in-group biases based on perceptions of social identity (Perreault & Bourhis, 1998; Rennison, Grover, Bosick, & Dodge, 2011). Winstok (2009), for example, compared the responses by Jewish and Muslim youth to hypothetical situations in which conflict was present. In these various scenarios, the opponent’s characteristics were altered (e.g., religion, race, and gender). After reviewing these situations, the subjects were asked whether aggression was a reasonable response, and findings showed that respondents were less likely to view aggression as appropriate if the person was of a similar religion as themselves.

SIT, the Criminal Justice System, and Interrogation

The in-group and out-group conflicts associated with SIT are a concern within the criminal justice system as well (Taylor & Hosch, 2004). Criminal justice officials, such as police officers, prosecutors, judges, and corrections personnel, are tasked with the responsibility of maintaining standards of equity and fairness in the commission of procedural and substantive due process. Despite these standards, however, there is often the potential for discriminatory treatment towards those considered part of the out-group or acts of favoritism towards those perceived as part of the in-group.

Research has demonstrated that how criminal justice officials treat offenders or the public at large is often influenced by perceived differences in numerous factors, including race/ethnicity (Koons-Witt & Schram, 2006; Murphy & Cherney, 2012; Rice & White, 2010), gender (Koons-Witt & Schram, 2006; Schram, 1999), relational distance (i.e., closeness/familiarity between individuals; Jacques & Rennison, 2012), cultural differences (Jacques & Rennison, 2012), age and social status (Schram, 1999). In many of these instances, social and cultural minorities, and other marginalized groups, have been subjected to differential treatment based on group membership.

More specifically, research involving interactions between interrogators and detainees has garnered a great deal of interest (Lassiter & Ratcliff, 2004), but attention on this subject has been historically focused on the effectiveness of interrogation methods on confession outcomes (Kassin et al., 2007; King & Snook, 2009; Wachi et al., 2013) including false confessions (Kassin et al., 2010), and in detecting deception (see generally, Vrij, 2008). With the possible exceptions of research on interrogating juveniles (Cleary, 2014; Feld, 2012; Meyer & Reppucci 2007, Redlich, Silverman, Chen, & Steiner, 2004; Reppucci et al., 2010) and on racial/ethnic differences of interrogator and suspect (Nadjowski, 2011; Ratcliff et al., 2010), researchers have largely not

considered how the social and cultural characteristics may shape the interactions between interrogator and detainee.

A small body of evidence exists, however, to suggest that characteristics associated with social identity may influence the interrogative process (Beune, Giebels, Adair, Fennis, & Van Der Zee, 2011; Beune, Giebels, & Sanders, 2009; Beune, Giebels, & Taylor, 2010; Goodman-Delahunty, O'Brien, & Gumbert-Jourjon, 2013). Beune and colleagues (2009), for example, examined the impact of cultural differences on interviewing strategies. They found that a rational persuasive strategy (i.e., arguments referring to logic and rationality) is more effective in terms of admissions among detainees from low-context cultures (cultures in which communication is direct and content-oriented) whereas being kind (i.e., active listening, rewarding, and offering) improves outcomes with high-context groups (cultures which communicate in a more indirect and context-oriented manner). These findings were further supported in subsequent research conducted by Beune and others showing that cultural differences play a key role in influencing the interrogative process (Beune et al., 2010; 2011). Although these studies were limited to measuring differences based on cultural identity, they provide some insight into how in-group and out-group biases may influence the interrogative process and the perceived effectiveness of interrogation techniques.

Although the available evidence suggests a relationship between social identity and interrogation, there is a limited amount of research which specifically addresses this issue. Because differences in social identity between the interrogator and detainee may shape the interactions that occur and/or influence the type of interrogation method employed, it is important to begin to study these issues in more depth. In an effort to address this gap in the literature, the present study examined whether social identity is associated with the type of interrogation method perceived to be effective with detainees who share social and cultural characteristics with the interrogator versus those who do not. Broadly speaking, we hypothesized that the interrogators, in accordance with social identity theory, would demonstrate an in-group bias with respect to the interrogation methods they perceive to be effective with detainees. Although we acknowledge that we are not examining actually employed interrogation methods with in- and out-group members (but rather perceptions), the import of this research is to begin shedding light on the influence social and cultural factors may have on the interrogation process and to sensitize researchers and practitioners to the issues surrounding social identity.

Prior to describing the study and its findings, it is important to clarify how the term 'bias' is used in the remainder of the paper. By bias, we mean that based on SIT, interrogators will perceive interrogation methods as more effective when considering detainees who are similar to themselves rather than those who are dissimilar. Put differently, interrogators are hypothesized to be biased toward employing interrogation methods with certain individuals (i.e., in-group members) more so than with others (i.e., out-group members). Bias, as used here, is not intended to have a negative connotation.

Method

Survey Development & Deployment

The organizing feature of the survey was the domains of an interrogation taxonomy (Kelly, Miller, Redlich, & Kleinman, 2013), specifically an examination of the six meso-level domains: *rapport and relationship building*, *emotion provocation*, *context manipulation*, *confrontation/competition*, *collaboration*, and *presentation of evidence* (see Table 1 for a description and example techniques from each). One of the benefits of employing the language of

the domains is that the six constructs are more descriptive than broader dichotomous categories (e.g., minimization versus maximization) yet more parsimonious than several dozen specific techniques and therefore better suited for research and descriptive purposes.

Table 1. Interrogation Domains & Social Identity Characteristics

Domain	Description	Example Techniques
<i>Rapport & Relationship Building</i>	A working relationship between interrogator and detainee	Find common ground; meet basic needs of detainee; build a bond with the detainee
<i>Emotion Provocation</i>	Targeting the detainee's raw feelings in order to trigger a response	Appeal to detainee's conscience, religion, or self-interest; offer rationalizations; flatter the detainee
<i>Context Manipulation</i>	Altering the physical or temporal space of the interrogation	Interrogate in a small room; place the detainee in a specific place; isolate the detainee prior to interrogation
<i>Confrontation/Competition</i>	Asserting authority and control over the detainee and creating a zero-sum condition	Emphasize authority over the detainee; challenge the detainee's values; threaten the detainee with consequences
<i>Collaboration</i>	Interrogator and detainee working together toward a common goal via an explicit or implicit exchange of favors or information	Offer special rewards for cooperation; bargain with the detainee; appeal to the detainee's sense of cooperation
<i>Presentation of Evidence</i>	Providing documentation of the detainee's guilt or complicity, including bluffs and fabricated evidence	Identify contradictions in the detainee's story; confront the detainee with actual evidence, including audio/visual aids
Characteristic	In-Group	Out-Group
Culture	The detainee is from a culture similar to yours	The detainee is from a culture that is dissimilar to yours
Gender	The detainee is the same gender as you	The detainee is the opposite gender as you
Language	You speak the same language as the detainee	The detainee speaks a different language than you
Age	The detainee is approximately the same age as you	The detainee is older than you; The detainee is younger than you

As such, in the first half of the survey, participants were introduced to the domains by rating the frequency with which they employ the various techniques, based on Kelly et al.'s (2013) formulation. A subsection of the survey was dedicated to each of the six domains with clearly labeled instructions to the participant that the following techniques were related to the domain (see Redlich, Kelly, & Miller, 2014, for these frequencies). In sections of the latter half of the survey, then, only the six domains were used as parsimonious indicators of interrogation methods

(as opposed to the individual techniques that made up the domains). For the present study, a subsection of the survey was dedicated to several social identity characteristics of detainees and whether the interrogators perceived the six domains to be 'very effective' when the detainee was an in- or out-group member. These measures are included in Table 1 and described more fully in the next section.

Human subjects approval was granted by the researchers' University and the Federal Bureau of Investigation (FBI) Institutional Review Boards. Recruitment for the study commenced in February 2011 and two primary methods of recruitment were employed: (i) drawing upon contacts from the High Value Detainee Interrogation Group (HIG; the funders of the survey) research staff and associated individuals, including academic contacts and networks of the authors; and (ii) developing new contacts in the interrogation and interviewing community. The first strategy included reaching out to active interrogators at the HUMINT Training – Joint Center of Excellence (HT-JCOE), the Federal Law Enforcement Training Center (FLETC), and the FBI training facility at Quantico. Additional active personnel recruitment was done through internal channels at the HIG and among a broader set of FBI agents. Most often, either contacts in the United States had professional contacts in other countries or were directly connected to foreign academics. The second strategy focused on developing contacts predominantly through retired agents' and military intelligence officers' associations found through internet searches and personal referrals. Further, notices were sent on the listserv of the International Investigative Interviewing Research Group, a professional organization that consists of both academics and practitioners. A recruitment letter was written and approved for distribution by the Director of the HIG that was circulated throughout the active practitioner community and associations found through extensive internet research.

Although a hardcopy version of the survey was available upon request, all participants took it via a secure website using a username and password that was included in the recruitment letters. All recruitment materials and the survey itself were written in English. Before participating, respondents provided consent by reading a statement informing them of their right to discontinue participation any time and that responses were anonymous and confidential. Once participants clicked 'agree' the survey began.

Participants, Measures, and Analytic Plan

The sample for the current study included 225 interrogators who logged onto the survey website, gave their informed consent, and initiated participation in the survey (see Table 2). The majority of the sample was male (88.0%) and active at the time they participated in the survey (77.6%). Slightly less than half of the sample was American (44.4%), with Canada (36.0%), the United Kingdom (5.8%), and the Netherlands (5.3%) representing most of the remaining non-American nations in the sample. Virtually all participants from countries other than the United States were in criminal law enforcement, but approximately 20% of the American subsample (8.1% of total) included military and federal-level interrogators (e.g., Federal Bureau of Investigation, Department of Homeland Security). The mean age of the sample was 48.56 years ($SD = 10.62$), and participants had slightly less than 20 years experience on average (19.82, $SD = 10.20$).

Table 2. Sample Demographics

	Mean (SD)
Male	88.0%
Age (years)	48.6 (10.6)
Active (versus retired)	77.6%
Law enforcement (versus military)	91.9%
Experience (years)	19.8 (10.2)
Country	
United States	44.4%
Canada	36.0%
United Kingdom	5.8%
Netherlands	5.3%
Ireland	4.4%
Other ^a	4.1%

a. 1-2 participants from each Australia, Fiji, Norway, New Zealand, South Korea

As stated above, the measures for the current study came from a section of the survey in which participants were asked to rate their perceptions of the six domains on various detainee characteristics. Importantly, participants were reminded of the techniques within the domain prior to responding to the survey items. The participants were given a set of detainee characteristics that were the focus of the current study: culture, gender, language, and age. Based on the existing literature, these characteristics closely reflect attributes which shape social identity (Hogg & Abrams, 1988; Hopkins & Reicher, 2011; Tajfel & Turner, 1986). Due to the assumption that the participants would vary among these attributes themselves, the items were worded such that they would be relative to their own social characteristics. In other words, interrogators were asked to rate the perceived effectiveness of the six domains with respect to both in-group and out-group membership of the detainee.

Specifically, each of the six domain batteries read, “[*Rapport and Relationship Building, Emotion Provocation, Context Manipulation, Confrontation/Competition, Collaboration, or Presentation of Evidence*] is very effective when the detainee is: from a culture similar to yours; from a culture that is dissimilar to yours; the same gender as you; the opposite gender as you; speaks the same language as you; does not speak the same language as you; approximately the same age as you; older than you; younger than you.” The participants were instructed to check the box next to the item to indicate an affirmative response. The absence of a check was coded to indicate the participant did not believe that the domain was very effective with the type of individual. Thus, participants had the opportunity to state whether for each domain, techniques were very effective, for example, when the detainee’s culture was similar and dissimilar, under neither or both conditions. In other words, the participants were not forced to choose whether the domain was effective with detainees from a similar culture *or* a different one; they could have said the domain was very effective with both in- and out-group detainees.

The nine characteristics across six domains resulted in 54 total variables: 24 in-group characteristics (e.g., same gender as you) and 30 out-group characteristics (e.g., the opposite

gender as you). The imbalance results from the additional relational item regarding age with both “older than you” and “younger than you” treated for analytic purposes as characteristics of the out-group. In addition to examining the variables for discernable patterns between in-group and out-group characteristics, we reduced the data in several steps for further analysis. First, for each of the six domains we created one scale for the in-group characteristics and one scale for the out-group characteristics, resulting in 12 social identity variables. To account for the different number of characteristics between the in-group and out-group, the average proportion of characteristics selected was calculated instead of simply summing them. Rather than conduct 30 pairwise comparisons for the individual characteristics by domain, which would increase the experiment-wise error rate, only six such comparisons were conducted on these 12 variables that examined the social identity characteristics by domain.

Six scales, one for each domain, were then computed by subtracting the out-group from the in-group totals. These variables could range from -1 to +1 with positive scores indicating a perception of an in-group bias for that particular domain. With these variables, we could compare differences in perceptions regarding the domains as very effective interrogation methods vis-à-vis group identification.

Next, we reduced the six domain scales to just two representing all domains for both the in-group and out-group characteristics by similarly averaging the items within group identification across domains. We were justified in doing this, as the Cronbach's alpha reliability for each was very strong for the individual items within group identification variables ($\alpha = .94$ for in-group; $\alpha = .95$ for out-group). These variables were used to create a single *Social Identity Scale* by subtracting the out-group score from the in-group score, again resulting in scores that could range from -1 to +1. Higher scores on this scale indicate a greater level of in-group bias; scores of zero on this scale indicate that participants selected an equal number of in-group characteristics for which interrogation methods are ‘very effective’ as they did for out-group characteristics. Approximately 20% of the sample had a balanced score of zero and an additional 15% was in the negative range of the scale.

Although the 54 original social identity characteristics variables are presented descriptively in the next section in addition to the pairwise comparisons of each in- and out-group domain scale, the six domain scales and the *Social Identity Scale* were subjected to further analyses. Zero-order correlations with the scales were examined for possible associations between them and a number of interrogator characteristics: gender, age, and whether the interrogator was considered military or law enforcement.

Finally, two other items relating to interrogating individuals from different cultures were included in the survey in the “Demographic and Background Experience” subsection. The questions asked directly about participants’ (i) perceived effectiveness and (ii) level of comfort communicating and interacting with individuals from cultures different than their own. These items were included in the survey due to the probability of participants having at least some measure of contact with out-group members, and the questions were an opportunity for self-assessment with respect to their professional experiences. Responses were given on a four-point scale ranging from 1 = ‘Not at all Effective/Comfortable’ to 4 = ‘Very Effective/Comfortable.’ In addition to the demographic variables above, these perceptions will be included in the correlational analyses presented in the next section.

Results

The results for the 54 social identity characteristics and the proportion of participants indicating that the six domains are ‘very effective’ with detainees in relation to themselves on the attributes are presented in Table 3, including t-test significance levels and Cohen’s *d* effect sizes for the social identity scales for the six domains. For instance, 72% of interrogators reported that *rappport and relationship building* was very effective with detainees who were from a culture similar as themselves, but only 44% said this domain was very effective with those from a different culture. The social identity scales by domain represent an averaging of the four characteristics, and we found, for example, that 37% of interrogators stated that *confrontation/competition* was very effective with in-group detainees. The number of interrogators for this domain with out-group detainees, however, was only 25%, a difference that was statistically significant with a moderate effect size.

Table 3. Proportion of Interrogators Stating the Domains are ‘Very Effective’ for Social Identity Characteristics and Pairwise t-tests and Cohen’s d for In-Group and Out-Group Comparisons by Domain

	<i>Rapport & Relationship Building</i>	<i>Emotion Provocation</i>	<i>Context Manipulation</i>	<i>Confrontation/ Competition</i>	<i>Collaboration</i>	<i>Presentation of Evidence</i>
	In / Out	In / Out	In / Out	In / Out	In / Out	In / Out
Culture	.72 / .44	.59 / .35	.41 / .35	.43 / .25	.51 / .34	.46 / .34
Gender	.54 / .41	.46 / .33	.31 / .29	.31 / .20	.43 / .33	.37 / .31
Language	.72 / .36	.59 / .25	.42 / .27	.43 / .18	.53 / .28	.43 / .35
Age ^a	.60 / .44 / .51	.42 / .33 / .50	.34 / .27 / .37	.33 / .21 / .39	.43 / .35 / .39	.37 / .36 / .44
Social Identity ^b	.65 / .43	.52 / .35	.37 / .31	.37 / .25	.47 / .34	.41 / .35
Pairwise t and (d)	8.947** (.523)	6.915** (.398)	2.620 (.145)	5.630** (.329)	6.457** (.318)	2.817* (.129)

a. The figures presented for age of the detainee are same, older, and younger (in/out/out), respectively, and the pairwise comparisons are same age versus older and younger together as the out-group.

b. The pairwise *t* and Cohen’s *d* are based on the figures for the social identity scales for each of the six domains.

Note: ** $p < .001$, * $p = .005$

With a few exceptions for age and for the *context manipulation* domain, the interrogators in this sample were consistently more likely to rate the domains as very effective for those detainees who are similar to themselves with regard to culture, gender, and language. Notably, the only instance where a domain was perceived as more effective with an out-group member was with younger detainees. This was true for the *emotion provocation*, *context manipulation*, *confrontation/competition*, and *presentation of evidence* domains. We conducted post hoc tests with Bonferroni corrections to reduce the likelihood of type I errors. With the adjusted significance levels, the results showed that five of the six social identity variable comparisons revealed significant differences between in- and out-group measures for each domain. Also, as evidenced by the relatively small effect sizes, *context manipulation* and *presentation of evidence* were the least sensitive to the detainee’s group affiliation (though still significant).

Table 4 presents the descriptive statistics for the seven scales created from the social identity characteristics that represent a continuum of perceptions on the effectiveness of interrogation methods with respect to in-group and out-group membership. Although the utility of these scales is to identify which interrogator characteristics are associated with in-group bias, the figures in Table 4 are instructive in their own right. For instance, with mean scores at .058 and .056, we can state that *context manipulation* and *presentation of evidence*, respectively, are perceived to be 'very effective' at roughly equal rates for in-group and out-group detainees. This is because a score of zero indicates a balance between methods perceived to be effective with in-group and out-group detainees. Alternatively, the mean for *rapport and relationship building* (.213) is the largest among the six domain scales. What this figure indicates is that among the six domains, *rapport and relationship building* is more often perceived to be very effective with in-group detainees than out-group ones. Similarly, the *Social Identity Scale* indicates, on balance, that interrogators seem to have an in-group bias with respect to the totality of methods they have at their disposal. Overall, however, because the scores on these variables could range from -1 to +1, we note that, on average, this sample does not demonstrate a very strong proclivity toward an in-group bias.

Table 4. In-Group Bias Ratings for the Six Domain Scales and Social Identity Scale

	Mean	SD	N ^a
<i>Rapport & Relationship Building</i>	.213	.357	225
<i>Emotion Provocation</i>	.163	.347	217
<i>Context Manipulation</i>	.058	.319	211
<i>Confrontation/ Competition</i>	.125	.323	211
<i>Collaboration</i>	.136	.305	209
<i>Presentation of Evidence</i>	.056	.283	206
<i>Social Identity Scale</i>	.126	.225	225

a. The figures vary by domain due to missing data.

The results of the final analysis are presented in Table 5. Among the interrogator characteristics examined, several had little to no association with the six domain scales. For instance, only males were marginally more likely to demonstrate an in-group bias with respect to *rapport and relationship building*; indeed, there was no discernable trend between gender and the in-group bias scales. Likewise, criminal law enforcement interrogators were somewhat more likely to demonstrate an in-group bias as opposed to military interrogators. Moreover, older interrogators were more likely to demonstrate an in-group bias with regard to *context manipulation* and *presentation of evidence*. (Although not shown in the results due to its strong

correlation with age, the results for more experienced interrogators were very similar to the results for older ones.)

With respect to the *Social Identity Scale* in its entirety, older interrogators and criminal law enforcement interrogators were significantly more likely to demonstrate an in-group bias. Alternatively, the items relating to the participants' self-ratings of effectiveness with and comfort in interacting with detainees from other cultures were both significantly related to lower levels of in-group bias. This was true for both the *Social Identity Scale* in general and the *rappport and relationship building* one in particular. These items were the only ones examined that were significantly related to lower levels of in-group bias.

Lastly, due to the multinational nature of the sample, an examination of in-group bias along these lines is warranted. What we found, however, is that for all seven variables in one-way analysis of variance tests (and confirmed using generalized linear models that control for multiple comparisons), there were no significant differences in the sample when the three comparison groups were American, Canadian, and Other (results not shown). Although certainly not definitive, as the third category consisted of only 41 interrogators from eight countries, additional research is needed to detect differences should they exist between interrogators from different countries on these measures.

Table 5. Correlations between Domain and Social Identity Scales and Interrogator Attributes

	Male	Age	Law Enforcement ^a	Effective	Comfortable
<i>Rapport & Relationship Building</i>	.132 [†]	.033	.107	-.289***	-.251**
<i>Emotion Provocation</i>	-.123	.068	.101	-.098	-.095
<i>Context Manipulation</i>	-.023	.160*	.088	-.079	-.129
<i>Confrontation/ Competition</i>	-.027	.107	.144 [†]	-.051	-.051
<i>Collaboration</i>	.034	.137 [†]	.069	-.177*	-.045
<i>Presentation of Evidence</i>	.120	.180*	.013	-.173*	-.106
<i>Social Identity</i>	.020	.156*	.188**	-.223***	-.162*

a. The comparison group is military interrogators.

Note: *** $p < .001$, ** $p < .01$, * $p < .05$, [†] $p < .10$

Discussion

The foregoing study of an international sample of interrogators and investigative interviewers represents one of the first examinations into the effect social and cultural characteristics of interrogators and detainees can have on perceptions of interrogation method effectiveness. Whereas much of the academic work on interrogation and intelligence interviewing has focused on obtaining confessions and in detecting deception, we sought to describe and explain interrogator perceptions of effective methods when detainees are similar to them on several attributes and when they are different from one another. To do this, we employed the language of a well-established theory of intergroup relationships, Social Identity Theory (SIT), and a new taxonomic framework describing interrogation, notably the six meso-level domains (Kelly et al., 2013).

With the increasingly diverse populations within many of the countries in our sample and the transnational nature of HUMINT and counterterrorism efforts, cross-cultural interrogations are a matter of critical import. There is a relative dearth, however, of research surrounding these issues in the literature. As such, we sought to contribute to the knowledge base on the perceptions of effective interrogation when detainees are similar to or different than the

interrogator. We found support for our primary hypothesis that interrogators in our sample were more likely to perceive interrogation methods as 'very effective' with in-group detainees as opposed to out-group detainees (see differences in Table 3). Here, we discuss this and the other findings in greater detail, including the research's limitations and implications.

In this study, four social and cultural characteristics (culture, gender, language, and age) were used to investigate the perceived effectiveness of interrogation methods when detainees were similar and dissimilar to the interrogators. Although the survey and the present study were not designed to be a test of SIT, the findings presented are in line with the theory's central premise that individuals view and treat others differently depending upon what group the other person is affiliated with. Specifically, the differences presented in Table 3 for the four characteristics by the six domains and the scale means of Table 4 offer support to the notion that an in-group bias exists among this sample of interrogators.

The consistent and significant differences between the in-group and out-group detainees indicate that the participants in this study are much more likely to see interrogation methods as 'very effective' with detainees who are similar to them as compared to those who are not. For the culture, gender, language, and age characteristics, interrogators were consistently more likely to favor or prefer the interrogation domains for in-group detainees, with the notable exception of age. In this instance, for four of the domains – *emotion provocation*, *context manipulation*, *confrontation/competition*, and *presentation of evidence* – the interrogators were significantly more likely to see these methods as more effective with younger detainees (an out-group indicator) than with those who are of a similar age or older.

A reversal of the overall trend for younger detainees is possibly indicative of the fact that age is the one true measure of interpersonal power dynamics we have in this study. The *emotion provocation*, *confrontation/competition*, and *presentation of evidence* domains where the trend reverses could be considered among the most manipulative of the six domains and therefore considered more appropriate for younger detainees due to a perceived susceptibility to these methods. This argument is bolstered by the finding that *rapport and relationship building*, arguably the least manipulative domain, is significantly more often viewed as very effective with in-group (similar aged) detainees than with younger ones. Lastly, it could be argued that gender could display similar power differentials, especially considering the fact that nearly 90% of the sample was male, but the findings do not support this conclusion.

When the social characteristics of detainees are scaled by domain and then into the overarching *Social Identity Scale*, we can observe additional evidence supporting our hypothesis of an in-group bias. Scores on these scales ranged from -1 to +1, with higher positive scores indicating a greater in-group bias and scores of 0 representing a balanced view that interrogation methods are equally effective regardless of the group membership of the detainee. To varying degrees, all six domain scales were in the positive range, with *rapport and relationship building* demonstrating the greatest degree of in-group bias and *presentation of evidence* the least. A product of this trend, the *Social Identity Scale*, representing all interrogation methods and all four social characteristics, is also in the positive range.

The meaning of these findings of in-group bias among interrogators and investigative interviewers can (and should) be debated and subjected to additional research (particularly research on actual interrogations), but we offer one possible explanation here: interrogators prefer to interrogate detainees who are like them. Although we did not ask questions about preferences directly, the consistent finding that interrogators reported the domains to be 'very effective' with detainees who are similar as themselves indicates a preference for, likely based on a level of intimacy and knowledgeability of, the in-group detainee.

The two related variables presented in Table 5 regarding the interrogators' self-reported levels of effectiveness and comfort with detainees from other cultures can shed additional light on the claim that interrogators simply prefer to interrogate people who are like them. For each domain scale and the *Social Identity Scale*, the coefficients are negative, unlike in nearly all of the other figures in Table 5, and significantly so for *rappport and relationship building* and the *Social Identity Scale*. These findings indicate that interrogators who think of themselves as more adept in communicating with people who are not like them were less likely to demonstrate in-group bias. Put differently, those who rated themselves as being relatively less effective and/or comfortable with detainees from different cultures were more likely to report an in-group bias.

Likewise, the finding presented in Table 5 that military interrogators were less likely to demonstrate an in-group bias as compared to law enforcement officers lends additional support to the argument advanced here. Unlike law enforcement interrogators who police and interact with citizens who share many social and cultural characteristics based on geography alone, we could expect military interrogators to have a greater degree of experience with detainees who are not like them; therefore, they would be more knowledgeable of out-group detainees and perhaps more likely to view interrogation methods as effective with them.

This is precisely what SIT would predict, though other lenses could be used to support these findings. For instance, assortative mating is a biological phenomenon based on humans' (and other animals) preference to mate with those who are similar on a variety of traits (Thiessen & Gregg, 1980). In more strictly sociological terms, homophily is the concept that an individual's social network consists mostly of people who are like one another (McPherson, Smith-Lovin, & Cook, 2001). The "homophily principle" has been demonstrated to be present in all manners of relationships due to a shared understanding of similarly-situated people, and these concepts could be applied in support of our findings and conclusions as well.

We can also make observations more generally regarding the perceived effectiveness of the domains themselves. In line with previous research (Redlich et al., 2014; Russano, Narchet, Kleinman, & Meissner, 2014), participants indicated that *rappport and relationship building* was the most effective domain regardless of comparing in-group or out-group status across domains. In several instances, in fact, the out-group perception of *rappport and relationship building* being 'very effective' is equal to or somewhat greater than some in-group perceptions among the other domains.

One such domain that demonstrated this pattern was *confrontation/competition* that was also among the least favored overall, particularly with out-group detainees. It is worth noting here that some of the research on the effects of social identity and in-group bias could have warranted a prediction that, of the six domains of the interrogation taxonomy (Kelly et al., 2013), *confrontation/competition* would demonstrate higher rates of perceived effectiveness for out-group detainees as opposed to in-group detainees. Of the domains, this one could be considered the most coercive, harsh, or accusatorial, and given the inherent power differential between interrogator and detainee, it might not have been surprising if the results had come up in opposition to the other domains. This did not occur, of course, and one possible reason was that the sample consisted of fairly older and very experienced interrogators. What we know of accusatorial methods' relative ineffectiveness at generating good information (Meissner et al., 2014; see also Wheatcroft & Ellison, 2012, for analogous findings in the cross-examination of witnesses in court), older and more experienced interrogators may better embody this ethos than would a sample of younger and less experienced interrogators.

Finally, the *context manipulation* and *presentation of evidence* domains warrant a brief discussion as well. The differences between in-group and out-group perceptions of domain effectiveness (Table 3), and the relatively weaker in-group bias means for these domains (Table 4),

indicate that these two may be viewed differently than the other four when it pertains to social identity. Whereas *rappport and relationship building*, *emotion manipulation*, *confrontation/competition*, and *collaboration* each possess interpersonal, interactional qualities that are heavily dependent upon verbal communication and the personalities of both the interrogator and detainee, *context manipulation* and *presentation of evidence* can be considered more demonstrative than the others. There is perhaps a level of objectivity or universality to, for instance, the actions of physically altering the interrogation room or actually showing a piece of evidence to the detainee that cuts across group differences in ways that the other domains do not. Future research into the domains or interrogation methods more broadly ought to consider the differences between the interactive and demonstrative qualities of the domains.

Implications for Practice

Although the present study was based on self-reported survey data of interrogators' perceptions of effective interrogation methods with in- and out-group members, and not an observational study in which actual practices were analyzed, the findings nevertheless have several potential implications for practitioners. First, the consistent findings of an in-group bias among our sample augurs for the need for diversity among interrogators. As Western European and North American countries become increasingly diverse, the ranks of interrogators should reflect the population, and it begins with the recruitment of new interrogators. Furthermore, military interrogators will likely be questioning detainees who are from countries and cultures that are different than their own, and the diversity among these interrogators is especially critical.

Diversity alone in the ranks of interrogators will not inherently lead to better outcomes with respect to cross-cultural interrogations, however. Related to recruitment is the training of interrogators – new and veteran alike – in the potential effects of the social and cultural differences of the detainee. The present research is unable to address which methods are most actually effective with in- and out-group members, but at the very least, the survey results show that what interrogators perceive to be effective varies depending upon the social identity of the detainee. How this translates into practice is an open question, though interrogators could be sensitized to the likelihood that they themselves may be doing something differently, subconsciously or otherwise, when the detainee is an out-group member. Further, it stands to reason that techniques perceived to be very effective would be more likely to be employed.

Finally, our data do not lead us to any firm conclusions regarding whether or not intimate knowledge of the social and cultural characteristics of out-group detainees would result in perceiving interrogation methods as equally effective as with in-group detainees. Although somewhat different than knowledge of out-groups, the significant association between self-reported effectiveness and comfort with those from different cultures measures and lower levels of in-group bias would seem to indicate that such a relationship exists. As above, the current research does not address whether or not the same interrogation methods are effective in- and out-group members, only that there is a perception that they are very effective with in-group members more so than with out-group members. We do know, however, that careful planning and preparation by interrogators (and analysts) results in better outcomes (Kleinman, 2011; Toliver, 1997).

Limitations & Future Directions

As stated above, neither the survey from which the data for the current study came nor the analyses presented above was intended to be direct tests of SIT. There are surely additional indicators of in- and out-group membership beyond culture, gender, language, and age that should be examined such as race/ethnicity, religion, national or regional origin, and others. These additional indicators could have portrayed a more accurate representation of social identity which could have had an impact on the results. However, the four indicators of social identity that we did measure were largely consistent, lending some degree of reliability to our findings and conclusions.

Next, the generalizability of these findings is difficult to assess. Although we had over 200 interrogators and investigative interviewers from 10 different countries participate in the study, the participants were not randomly selected from the entire population of interrogators. Despite the unique nature of the sample and the difficulty in accessing interrogators, a non-representative sample such as this one clearly warrants caution when interpreting and applying the results. With more than three-quarters of the sample was from either the United States or Canada, an argument could be made for these results applying more to a North American context than to a global one. Further, as the survey was written and the results reported here, the word “detainee” implies that the individual subjected to interrogation is somehow in the custody of the authorities. As such, how well our results apply to sources of information or intelligence who are not detained is still an open question.

Like all survey research, the self-reported nature of the data and all attendant limitations therein must be acknowledged. There is always the possibility of social desirability when anonymously reporting on behaviors, especially those as potentially sensitive as interrogation methods. Further, we do not maintain the position that the interrogators who participated in this survey are in any way prejudiced against out-group detainees; instead, through unconscious forces as described by social identity theory, the participants demonstrated a tendency to perceive a variety of methods as more effective with detainees who were similar to themselves.

Related to social desirability, there is also the matter of equating the self-reported perceptions of what is effective with the actual use of the methods that is potentially problematic in this study, including with survey items such as “build a bond” (*rapport and relationship building*) that may be problematic to operationalize in any such analysis of actual interrogations. Although we do not know for sure if these respondents would employ the methods they reported to be effective, we can look to other literatures for clues to this relationship. For instance, teens who thought condom use was effective at preventing HIV transmission were also more likely to use condoms (Hingson, Strunin, Berlin, & Heeren, 1990) and teachers with higher self-efficacy perceptions regarding a cognitive-behavioral intervention were more likely to employ those strategies (Boulton, 2014). Also, in a survey of large police departments, Koper, Woods, and Kubu (2012) reported a convergence in perceived effectiveness of gun violence prevention programs with actual use of those programs. And, of particular relevance, Kelly, Redlich, and Miller (2015) demonstrated similarities between survey data of reported use of interrogation methods and actual use of the same methods in a content analysis of a sample of recorded interrogations.

Lastly, we note that just because any of the interrogation domains for any of the social identity characteristics were not selected to be ‘very effective’ does not necessarily indicate that the method vis-à-vis the characteristic would be *ineffective*. Moreover, with the majority of the 54 indicators in Table 3 failing to garner much more than 50% of interrogators reporting the domain as ‘very effective,’ our dichotomous response options leave open the interpretability of the

results. Future research should be more refined in the emphasis of how effective methods are, but for present purposes, it simply is a condition of something less than very effective.

The consistent finding of an in-group bias, however, leaves us with the unanswered question that is critical for future work in the area of intelligence interviewing and interrogation: what are the methods that are considered most effective with detainees from different social and cultural backgrounds? From training to the practice of interrogation and the supervising of interrogators and the research conducted on all of the above, all involved in the enterprise of eliciting information from detainees (as well as victims and witnesses) ought to be sensitive to the social and cultural factors in play. Humans are social animals who are sorted through biological and sociological forces largely beyond our control, and the effects of this grouping process can have important implications for the actual and perceived effectiveness of interrogation methods. This study represents an attempt to document these effects so that future research can be designed specifically for the study of them.

References

- Beune, K., Giebels, E., Adair, W. L., Fennis, B. M., & Van Der Zee, K. I. (2011). Strategic sequences in police interviews and the importance of order and cultural fit. *Criminal Justice & Behavior*, 38, 934-954.
- Beune, K., Giebels, E., & Taylor, P. J. (2010). Patterns of interaction in police interviews: The role of cultural dependency. *Criminal Justice & Behavior*, 37, 904-925.
- Beune, K., Giebels, E., & Sanders, K. (2009). Are you talking to me? Influencing behaviour and culture in police interviews. *Psychology, Crime & Law*, 15(7), 597-617.
- Boulton, M. J. (2014). Teachers' self-efficacy, perceived effectiveness beliefs, and reported use of cognitive-behavioral approaches to bullying among pupils: Effects of in-service training with the I DECIDE program. *Behavior Therapy*, 45(3), 328-343.
- Cleary, H. M. D. (2014). Police interviewing and interrogation of juvenile suspects: A descriptive examination of actual cases. *Law and Human Behavior*, 38(3), 271-282.
- Feld, B. (2012). *Kids, Cops, and Interrogation: Inside the Interrogation Room*. New York: New York University Press.
- Goodman-Delahunty, J., O'Brien, K. & Gumbert-Jourjon, T. (2013). Police professionalism in interviews with high value detainees: Cross-cultural endorsement of procedural justice. *The Journal of the Institute of Justice & International Studies*, 13, 65-82.
- Haney, C., & Zimbardo, P. (1998). The past and future of U.S. prison policy: Twenty-five years after the Stanford Prison Experiment. *American Psychologist*, 53(7), 709-727.
- Hingson, R. W., Strunin, L., Berlin, B. M., & Heeren, T. (1990). Beliefs about AIDS, use of alcohol and drugs, and unprotected sex among Massachusetts adolescents. *American Journal of Public Health*, 80(3), 295-299.
- Hogg, M.A., & Abrams, D. (1988). *Social identification: A social psychology of intergroup relations and processes*. London: Routledge.
- Hopkins, N., & Reicher, S.D. (2011). Identity, culture, and contestation: Social identity as cross-cultural theory. *Psychological Studies*, 56, 36-43.
- Jacques, S., & Rennison, C.M. (2012). Social distance and immediate informal responses to violent victimization. *Journal of Interpersonal Violence*, 28(4), 735-754.
- Kassin, S.M., Drizin, S.A., Grisso, T., Gudjonsson, G.H., Leo, R.A., & Redlich, A.D. (2010). Police-induced confessions: Risk factors and recommendations. *Law & Human Behavior*, 34, 3-38.
- Kassin, S. M., Leo, R. A., Meissner, C. A., Richman, K. D., Colwell, L. H., Leach, A. M.,

- & La Fon, D. (2007). Police interviewing and interrogation: A self-report survey of police practices and beliefs. *Law & Human Behavior*, 31, 381–400.
- Katz, J. (1988). *Seductions of crime: Moral and sensual attractions in doing evil*. New York: Basic Books, Inc.
- Kelly, C. E., Miller, J. C., Redlich, A. D., & Kleinman, S. M. (2013). A taxonomy of interrogation methods. *Psychology, Public Policy, and Law*, 19(2), 165-178.
- Kelly, C. E., Redlich, A. D., & Miller, J. C. (2014). *Examining the meso-level domains of the interrogation taxonomy*. *Psychology, Public Policy, & Law*, 21(2), 179-191..
- King, L., & Snook, B. (2009). Peering inside a Canadian interrogation room: An examination of the Reid Model of interrogation, influence tactics, and coercive strategies. *Criminal Justice & Behavior*, 36, 674–694.
- Kleinman, S. M. (2011). *Approaching the interrogation challenge: Systematic planning and preparation*. Unpublished manuscript.
- Koons-Witt, B.A., & Schram, P.J. (2006). Does race matter? *Feminist Criminology*, 1(2), 125-146.
- Koper, C. S., Woods, D. J., & Kubu, B. E. (2013). Gun violence prevention practices among local police in the United States. *Policing: An International Journal of Police Strategies & Management*, 36(3), 577-603.
- Lassiter, G.D., & Ratcliff, J.J. (2004). Exposing coercive influences in the criminal justice system: An agenda for legal psychology in the 21st century. In G.D. Lassiter (Ed.), *Interrogations, confessions, and entrapment*. New York: Kluwer Academic Press.
- Meissner, C. A., Redlich, A. D., Michael, S. W., Evans, J. R., Camilletti, C. R., Bhatt, S., & Brandon, S. (2014). Accusatorial and information-gathering interrogation methods and their effects on true and false confessions: A meta-analytic review. *Journal of Experimental Criminology*, 10, 459-486.
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27, 415-444.
- Meyer, J. R., & Reppucci, N. D. (2007). Police practices and perceptions regarding juvenile interrogation and interrogative suggestibility. *Behavioral Sciences & the Law*, 25, 757-780.
- Murphy, K., & Cherney, A. (2012). Understanding cooperation with police in a diverse society. *British Journal of Criminology*, 52(1), 181-201.
- Nadjowski, C. J. (2011). Stereotype threat in criminal interrogations: Why innocent black suspects are at risk for confessing falsely. *Psychology, Public Policy, & Law*, 17(4), 562-591.
- Oldmeadow, J.A., & Fiske, S.T. (2010). Social status and the pursuit of positive social identity: Systematic domains of intergroup differentiation and discrimination for high- and low-status groups. *Group Processes & Intergroup Relations*, 13(4), 425-444.
- Perreault, S., & Bourhis, R.Y. (1998). Social identification, interdependence and discrimination. *Group Processes & Intergroup Relations* 1(1), 49-66.
- Ratcliff, J. J., Lassiter, G. D., Jager, V. M., Lindberg, M. J., Elek, J. K., & Hasinski, A. E. (2010). The hidden consequences of racial salience in videotaped interrogations and confessions. *Psychology, Public Policy, & Law*, 16(2), 200-218.
- Redlich, A. D., Kelly, C. E., & Miller, J. C. (2014). The who, what, and why of human intelligence gathering: Self-reported measures of interrogation methods. *Applied Cognitive Psychology*, 28(6), 817-828.
- Redlich, A. D., Silverman, M., Chen, J., & Steiner, H. (2004). The police interrogation of children and adolescents. In G. D. Lassiter (Ed.), *Interrogations, confessions, & entrapment*, 107-126. New York: Kluwer Academic/Plenum Press.

- Rennison, C. M., Gover, A. R., Bosick, S. J., & Dodge, M. (2011). Reporting violent victimization to the police: A focus on Black, White, Asian, and Hispanic adolescent victims. *The Open Family Studies Journal*, 4, 54-67.
- Reppucci, N. D., Meyer, J., & Kostelnik, J. (2010). Police interrogation of juveniles: Results from a national survey of police. In G. D. Lassiter & C. Meissner (Eds.), *Interrogations & Confessions: Current Research, Practices, and Policy*. Washington, DC: American Psychological Association.
- Rice, S. K., & White, M. D. (2010). *Race, ethnicity, and policing: New and essential readings*. New York: New York University Press.
- Russano, M. B., Narchet, F. M., Kleinman, S. M., & Meissner, C. A. (in press). Structured interviews of experienced HUMINT interrogators. *Applied Cognitive Psychology*.
- Schram, P. J. (1999). Social distance between inmates, peer counselors, and program staff in a women's prison. *Journal of Offender Rehabilitation*, 29(1/2), 89-100.
- Sollund, R. (2007). Canteen banter or racism: Is there a relationship between Oslo police's use of derogatory terms and their attitudes and conduct towards ethnic minorities? *Criminology & Crime Prevention*, (8)1, 77-96.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations*, pp. 33-47. Monterey, CA: Brooks/Cole.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behaviour. In S. Worchel, & W. G. Austin (Eds.), *Psychology of Intergroup Relations*, pp. 7-24. Chicago, IL: Nelson-Hall.
- Taylor, T. S., & Hosch, H. M. (2004). An examination of jury verdicts for evidence of a similarity-lenieny effect, an out-group punitiveness effect or a black sheep effect. *Law & Human Behavior*, 28(5), 587-598.
- Thiessen, D., & Gregg, B. (1980). Human assortative mating and genetic equilibrium- an evolutionary perspective. *Ethology and Sociobiology*, 1(2), 111-140.
- Toliver, R. F. (1997). *The interrogator*. Atglen, PA: Schiffer Publishing Ltd.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group*. Oxford, England: Basil Blackwell.
- Vrij, A. (2008). *Detecting lies and deceit: Pitfalls and opportunities*. Chichester, England: Wiley.
- Wachi, T., Watanabe, K., Yokota, K., Otsuka, Y., Kuraishi, H., & Lamb, M. (2013). Police interviewing styles and confessions in Japan, *Psychology, Crime & Law*, DOI: 10.1080/1068316X.2013.854791.
- Wheatcroft, J. M., & Ellison, L. E. (2012). Evidence in court: Witness preparation and cross-examination style effects on adult witness accuracy. *Behavioral Sciences & the Law*, 30 (6), 821-840.
- Winstok, Z. (2009). The effect of social and situational factors on the intended response to aggression among adolescents. *The Journal of Social Psychology*, 150(1), 57-76.

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Intelligence Interviewing: Synthetic Environments, Cognition and Cognitive Styles

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Abstract

For the foreseeable future, gathering information from others is likely to remain a fundamental goal for those concerned with protecting national and international security. A central challenge facing all information gatherers is to identify *how* a sender (the information collector) might 'manage' a receiver (the information holder) to best effect, that is how to encourage the receiver to *move* from a position of withholding to imparting information. Additional challenges arise from recent moves away from coercive, interrogative methods towards intelligence interviewing, and the increasing use of synthetic environments as communication channels, and so how senders might persuade receivers when interacting in synthetic environments. Here we discuss how the information gathering literature, with reference to intelligence interviewing, might advance in the face of such change, suggesting that those tasked with developing bespoke plans, or operational accords might wish to consider social cognition and cognitive styles theory to support positive outcomes in synthetic environments, without commanding them.

Keywords: *Intelligence interviewing; Synthetic environments; Cognitive style; Persuasion*

Introduction

For the foreseeable future, gathering information from others is likely to remain a fundamental goal for those concerned with protecting national and international security. A central challenge facing all information gatherers is to identify *how* a sender (the information collector) might 'manage' a receiver (the information holder) to best effect, that is how to encourage the receiver to *move* from a position of withholding to imparting information.

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Additional challenges arise from (i) the increasing use of synthetic/virtual reality¹ environments as communication channels, and how senders might persuade receivers when interacting in such environments, and (ii) changes in the demographics of users of synthetic environments. With respect to point (ii), communication in synthetic environments has traditionally been Anglo-American, male dominated, but intercultural communication is steadily increasing, as is the use of synthetic environments by females. Fast pace environmental and demographic changes are undoubtedly challenging for information gatherers, but change also offers new opportunities. Here we discuss how the information gathering literature, with reference to intelligence interviewing, might advance in the face of such change.

In recent years, following a significant amount of interest in the manner in which some countries go about gathering information from persons of interest, there has been a marked change in emphasis away from coercive, interrogative methods towards intelligence interviewing (e.g. Intelligence Science Board, 2009; Janofsky, 2006; Wahlquist, 2009). Intelligence interviewing refers to an approach to gathering information, typically from 'high value' detainees, in context. Here, context includes physical, interpersonal, and informational environments, the suggestion being that intelligence interviewers should be cognizant of each of these in order to develop a bespoke plan, or operational accord for each interviewee using an integrated systems approach. That is, interviewers should understand the physical, interpersonal, and environmental context in which an intelligence interview takes place to maximise the chances of developing an operational accord, or working relationship, whereby the interviewee shows a willingness to provide (albeit sporadic) accurate information in response to the questions posed (see Boon, Huq, & Lovelace, 2010; Intelligence Science Board, 2009). The suggestion being that once such a relationship has been established the interviewer is then well placed to challenge, accept or debate without losing rapport and/or truncating future information revelation.

Therefore, fundamental to developing an operational accord is information. Indeed, the intelligence interviewing framework is centred on, among other things, the notion of 'information power', that is *possessing* information about an interviewee (physical, interpersonal, and environmental) and *understanding how* to use that information to increase the likelihood of developing an effective operational accord. One example being, a tactical approach to disclosing of information (Dando & Bull, 2011; Dando et al., 2014) or using information gained to influence the interviewees' perceptions and behaviour (also see Ormerod & Dando, 2014). Here, information known to interviewers is systematically managed to support interviewers to challenge, accept and/or debate without losing rapport and/or truncating future information revelation.

In more traditional face-to-face settings, typically when persons of interest are in detention, methods for 'knowing' about interviewees are well established (e.g., observation, verbal interaction, identity checks, intelligence and communication information from other sources etc.). Yet, broadly speaking an interview is *any* conversation with a purpose, and so, interviews can, and do, occur in any environment that supports communication, outside of traditional face-to-face settings, and with persons of interest² who are not in detention (Burgess, 1984; Shaw, 2006). When such an interview takes place the concept of information power for

¹ Behavioural scientists often use the term virtual environment and synthetic environment interchangeably. For the purposes of this paper we use synthetic environment to refer to any form of human computer interface augmented by realistic computer generated effects and accurate behavioral models.

²From here on we use the term persons of interest to refer to any person who is believed to be involved in wrongdoing but who has not been arrested or formally accused of a crime.

intelligence gathering has received little attention and so the empirical and theoretical psychological literature in this domain is not as well advanced as other interviewing literatures.

Information power is an umbrella term, which for the purposes of this article we use to describe the process of seeking out information for developing an effective operational accord to leverage security or intelligence information. Clearly, intelligence interviewing is grounded in social cognitive theory, which in brief argues that human cognition, that is the way in which humans 'think', is a product of a reciprocal interplay between intrapersonal, behavioural and environmental determinants (Bandura, 1991). Accordingly, understanding the reciprocity between intrapersonal (internal to the communicator) aspects, and external environments offers exciting opportunities for understanding how to move to a position of information power.

To date, social cognitive theory, and intelligence interviewing approaches have largely been face-to-face centric, and so the question that arises is how might an operational accord be developed across different contexts? Here, we concern ourselves with synthetic environments (SEs), which are computer simulations that represent activities at a high degree of realism, and which are presented to the user in such a way that he/she temporarily suspends belief and accepts it as a real environment (see Witmer & Singer, 1998). SEs can be manipulated, and so can the way in which communicators represent themselves. Accordingly, they offer opportunities to discreetly collect seemingly innocuous information that can be used to 'get to know' a receiver. Proponents of 'soft power' (Nye, 2004) argue that positive outcomes are possible without commanding them, and without having tangible power, but rather by affecting behaviour and shaping preferences, SEs may allow intelligence interviewers opportunities to do just that.

It is timely that consideration be given to SEs as interviewing spaces for intelligence interviewing on several counts. First, there has been an exponential increase in our dependence on SEs: over 40% of the world's population currently have an internet connection (compared to just 1% in 1995; www.internetlivestats.com) and cyberspace underpins national and international infrastructures (e.g., water, fuel and banking). Access to SEs has resulted in increased crime and antisocial behaviours (identity theft, fraud, inciting hatred, sexual offending, harassment (Yar, 2013). Extremism and radicalisation has, and is increasing in synthetic communication spaces (Cornish, Huges, & Livingstone, 2009) with terrorist groups regularly using SEs to spread propaganda, raise funds, communicate and plan attacks. Finally, current research suggests advantages of using SEs to gather information (see below) compared to the traditional face-to-face environments, which dominate the literature to date, ranging from military and law enforcement training to assisting in pain management.

Currently, SEs are being developed and utilised for forensic and investigative training purposes, typically to simulate events and interactions to allow investigators to develop and practice skill sets more efficiently than might otherwise be that case, and to do so in a safe environment. For example, using an avatar-based interview simulator (ABIS) to allow free-flowing conversation, so creating a realistic interactive training experience (Kuykendall, 2010). However, SEs could also be useful for harvesting information on a receiver's cognitive style, information that could then be used to support the development of an operational accord, and so effect intelligence gathering. Cognitive style is variously described, but in the main is a preferred method of managing specific cognitive tasks (Kozhevnikov, Evans, & Kosslynn, 2014; Zhang & Sternberg, 2006; 2009). Cognitive styles are believed to be 'stable attitudes, preferences, or habitual strategies that determine individuals' modes of perception, memory, thought and problem solving' (Kozhevnikov et al., 2014, p.4), that evolve as a function of external environment, and so are environmentally sensitive (Buss & Greling, 1999). Hence, understanding cognitive styles may be the basis for beginning to develop effective operational accords by way of a bespoke person-interaction fit. Cognitive styles have received much attention in the domains of education,

business and management, but as yet, despite the obvious application of models of cognitive style to investigative/intelligence interviewing, there appears to be little empirical research in this domain.

Synthetic Environments, Cognition and Information

SEs may countenance information power because human cognition and behaviour differs when communicating in SEs compared to traditional face-to-face environments, and synthetic communication environments can be easily managed/manipulated to encourage the revelation/collection of information. Traditionally, cognitive styles are assessed using paper-based instruments that measure, for example, learning (e.g. the study process questionnaire) and decision-making styles (e.g. adaptor/innovator). However, environmental and cognitive factors unique to SEs indicate that the information necessary to assess cognitive styles might also be collected less formally, and in any case since cognitive styles are thought to be adaptive they may well be different in SEs than face-to-face.

The psychological literature offers several hypotheses as to why behaviour in SEs differs compared to face-to-face. The online disinhibition hypothesis (Suler, 2004) suggests that individuals are increasingly willing to disclose more personal information online because the fantasy and invisibility elements of SEs allow communicators to remain anonymous. Furthermore, there is a perception that the rules and regulations that govern in reality do not exist in SEs because meaningful reprisal is extinguished from the conscious. The Equalisation hypothesis (Dubrovsky, Kiesler & Sethna, 1991) supports this, arguing that being online allows freedom from physical attributes such as race, gender, age, and physical disabilities, and so stereotypical behaviours that arise in traditional face-to-face interactions are not available in SEs. A key example of this comes from an early study by Matheson (1991) who used a negotiation task to manipulate the availability of gender cues. Social perceptions of gender were directly affected by the availability of this information. Gender stereotypical perceptions were absent until gender cues were revealed and became salient to participants, at which point women were perceived as more cooperative, and men as more exploitive, indicating that that anonymity alters people's cognition, which in turn affects behaviour.

Positive affect is the instinctual reaction to positive, emotionally-provoking stimuli which can systematically influence performance on varying cognitive tasks without conscious awareness. One example is the International Affective Picture System (IAPS: Lang, Bradley & Cuthbert, 1999), which provides a set of normative, emotionally-evocative pictures across a wide range of semantic categories. Implementing emotionally evocative backdrops within a synthetic environment offers possibilities for managing an environment to improve communication, and enhance cognition. Indeed, research does indicate that positive affect enhances problem solving and decision-making as a result of more flexible, innovative, and efficient cognition (Isen, 2001). Positive affect has also been found to facilitate the bargaining process, improving outcomes when negotiating to buy and sell (Carnevale & Isen, 1986), apparently facilitating more systematic and careful processing of additional task information, and reducing distractibility and impulsivity. One avenue for future research is to consider integrating the IAPS into synthetic environments to investigate cognition and positive effect for information gathering.

The role of haptic feedback in collaborative tasks, that is whether haptic communication through forced feedback can facilitate a sense of being and collaboration with a remote partner, also speaks to intelligence gathering in SEs. Using multimodal shared virtual environments across gender and personality, simulating touch was found to have a powerful impact on task performance and sense of togetherness, which in turn affected cognitive processes such as

decision-making (e.g., Hafich, Fowlkes, & Lenihan, 2007). Making one subject 'strong' and the other 'weak' by way of a haptic device might offer environmental opportunities for information gathering.

One significant advantage of SEs for information gathering is that they allow people to communicate as avatars. An avatar is a digital visual projection that represents a synthetic reality (Fox & Ahn, 2013), allowing individuals to change aspects of their social identity to become less identifiable, or even create a novel, entirely fictitious and unrepresentative online identity—customising features such as eye colour, hair colour, height, gender and race etc. It is believed that most people who use avatars online wish to be unique and creative when immersed in SEs, allowing them to explore things they could not do in reality (Lin & Wang, 2014). Not only do individuals use avatars to express and release their inhibitions online, but avatars have also been found to influence cognition. For example, Yee and Bailenson (2007) found that when individuals were assigned an avatar their cognition merged to this digital representation, changing their behaviour in accordance with the representation. This is referred to as the Proteus Effect whereby people conform to the expectations and stereotypes of their given avatars altered self-representation, which has a direct effect on behaviour in SEs. For example, those assigned attractive avatars were found to display increased self-disclosure and were more willing to approach the opposite sex, and the taller the avatar the more confident participants became when verbally communicating in the SE. Zambaka, Goolkasian, and Hodges (2006) report that college students found avatars just as persuasive as real people: virtual characters were just as effective at changing attitudes as real people in face-to-face settings. Visual realism had no effect on persuasiveness.

It has been suggested that a lack of media richness in SEs is a challenge for investigators that without being able to consider physical behaviour (often referred to as body language), alongside spoken and written verbal communication, senders may be less effective information gatherers, and are unlikely to make appropriate veracity judgments (Marett & George, 2004). However, recent research has suggested that trained investigators can be more effective in determining veracity face-to-face when considering only the informational content offered in reply to a sender's questions, rather than the paralinguistic and non-verbal cues commonly associated with deception (Dando & Bull, 2011; Dando, Bull, Ormerod, & Sandham, 2013; Jenkins & Dando, 2012). When communicating on-line indicators of deceit are discernable in the complete absence of any physical behavioural cues simply by analysing language use (Tausczik & Pennebaker, 2010; Taylor & Dando et al., 2013). For example, use of words that denote distinctions and connections (e.g., but, also) can offer insights into the nature of people's reasoning (Graesser, McNamara, Louwerse, & Cai, 2004), and interviewer initiated language matching between interviewer and interviewee has been associated with increased confessions (Richardson et al., in press). Finally, SEs also support the use of automated software 'bots' (web robots) that roam SEs systematically collecting data (Friedman, Steed, & Slater, 2007), which properly controlled might be useful vehicles for understanding cognitive styles.

Current Applications of Synthetic Environments.

It is no longer the case that SEs are mostly of interest to hard-core gamers. Research investigating the application of SEs is increasing, particularly with a view to better understanding how technology might enhance lives within the real world. Recent applications include training, education and therapy, with virtual recreation of crime scenes, and remote video witness evidence in courts all benefiting from advances in synthetic environments. Virtual reality is becoming increasingly viewed as an affordable solution to pain management, and has proven

effective in managing and teaching patients to handle pain levels (both chronic or acute: Wiederhold, Soomro, Riva, & Wiederhold, 2014). A recent case study (Hoffman et al., 2014) concerned a child with severe burns to his body who when fully immersed in a virtual environment reported significantly reduced levels of pain intensity, the conclusion being that the strong illusion elicited from the virtual reality technology reduces the awareness of real-life body.

The US military have begun to incorporate virtual reality headsets into their training programmes (Lele, 2013), and are investigating the use of SEs for understanding how to mitigate the negative effects of combat-related stress disorders. Stress-inducing virtual environments are also being considered for reducing the risk of developing stress disorders in military personnel. US law enforcement agencies are currently using a virtual reality simulation for training on interaction and communication styles within an interview setting (Kuykendall, 2010). The technology (known as SIMmersion) creates an avatar that allows trainees to practise their skills, thus reducing the need for costly classroom teaching. Police officers displayed much improved interviewing reaction time, response time, critical decision processes, and safety skills after completing training using this technology, indicating the utility of SEs for allowing officers able to make mistakes, rewind, and practise their skills and techniques within a safe and secure environment.

Researchers have begun to investigate the utility of immersive gaming as a method for investigating insider threat incidents (Dando, Sandham, & Ormerod, 2013; Dando, Taylor, & Ormerod, 2013). The innovation behind this approach is the realization that what is needed is a rapid application that can both filter potential insider persons of interest, and provide relevant information to plan an effective investigative strategy. Deceivers are known to attempt to control their verbal and physical behaviour when being interviewed about suspected wrongdoing making veracity decisions difficult. Yet, computer mediated communication by way of a triage interview resulted in a high degree of success: veracity detection was more accurate (for truth-tellers and deceivers) because verbal and physical behaviour differences emerged on-line that were not apparent face-to-face (see Dando & Bull, 2011; Dando et al., in press) adding further weight to suggestions that behaviour in SEs is divergent from face-to-face behaviour.

Conclusion and Food For Thought

Research investigating the potential of synthetic environments for innovation in real-world intelligence interviewing is timely, but as yet is not widely available. Understanding cognition in terms of individual cognitive styles and differences within synthetic environments for intelligence and information gathering purposes offers numerous interesting, and promising lines of enquiry, which include understanding the effect of a senders responses on the behaviour of the receiver. For example, group polarization, which is the tendency for like-minded people to become extreme in their thinking following a group discussion (Isenberg, 1986), also occurs in virtual communities (McKenna & Green, 2002). Understanding the cognitive processes that support this phenomenon in SEs may prove beneficial for recruitment and information gathering purposes. Knowing how judgements are formed and modified in SEs may allow the development of predictive models for effective leverage, supporting intelligence interviewers to develop, and manage special working relationships. Knowledge of mode of information processing style, namely intuitive-experiential or analytical-rational, might predict the likelihood of irrational behavior in certain circumstances (Denes-Raj & Epstein, 1994; Epstein & Pacini, 1999), which may offer methods for overriding rational cognitive systems to best effect. Understanding individual need for cognitive closure would indicate whether individuals are more likely to 'seize and freeze' upon initially presented information, and so close their minds to further knowledge, resulting in impulsive decision-making (Webster & Kruglanski, 1994). This style implies that individuals may be less likely to move from

opposing to converging viewpoints, suggesting that intelligence gatherers need to be particularly cautious about how to manage initial approaches, at least in terms of the informational content of verbal interactions, perhaps?

Using virtual reality headsets to immerse participants in virtual worlds, manipulating environments, collecting information on immersed cognitive styles, and then measuring SE cognition compared to traditional face-to-face contexts would further our understanding of ways to gather information in SEs (e.g., Tranter, Dando, & Sandham, 2014). The increasing number of individuals using online environments to communicate dictates that investigators and information gatherers *must* give serious consideration to the multiple contexts in which interviews can occur – being proactive, rather than reactive may reap significant rewards. We would contend that by discretely and effectively managing cognition in SEs it is entirely possible to develop bespoke person-interaction and person-environment fits thereby offering opportunities for developing special working relationships that may not exist outside of SEs.

References

- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior & Human Decision Processes*, 50, 248-287.
- Biggs, J. B. (1987). *The study process questionnaire (SPQ): Manual*. Hawthorn, Vic.: Australian Council for Educational Research.
- Burgess, R. (1984). *In the Field. An Introduction to Field Research*. London: Allen and Unwin.
- Buss, D., & Greling, H. (1999). Adaptive individual differences. *Journal of Personality*, 67, 209-243.
- Carnevale, P. J. D., & Isen, A. M. (1986). The influence of positive affect and visual access on the discovery of integrative solutions in bilateral negotiation. *Organizational Behavior & Human Decision Processes*, 37, 1-13.
- Cornish, P., Hughes, R., & Livingstone, D. (2009). *Cyberspace & the National Security of the United Kingdom. Threats and Responses*. Chatham House, London.
- Dando, C. J., & Bull, R. (2011). Maximising opportunities to detect verbal deception: Training police officers to interview tactically. *Journal of Investigative Psychology & Offender Profiling*, 8, 189-202.
- Dando, C. J., Bull, R., Ormerod, T. C., & Sandham, A. L. (in press). Helping to sort the liars from the truth-tellers: The gradual revelation of information during investigative interviews. *Legal & Criminological Psychology*.
- Dando, C. J., Sandham, A. L., & Ormerod, T. C. (2013). *Detecting deception: Computer mediated triage interviews to detect persons of interest following an insider attack*. Paper presented at the International Investigative Interviewing Research Group Annual Conference, June, Maastricht.
- Dando, C. J., Taylor, P., & Ormerod, T. C. (2013). *Detecting deception: Can computers interview to detect persons of interest following an insider attack?* Paper presented at the American Psychology and Law Conference, 7-9th March, Portland, Oregon, USA.
- Denes-Raj, V., & Epstein, S. (1994). Conflict between intuitive and rational processing: when people behave against their better judgment. *Journal of personality & social psychology*, 66, 819.
- Dubrovsky, V. J., Kiesler, S., & Sethna, B. N. (1991). The equalization phenomenon: Status effects in computer-mediated and face-to-face decision-making groups. *Human-Computer Interaction*, 6, 119-146.

- Epstein, S., & Pacini, R. (1999). Some basic issues regarding dual-process theories from the perspective of cognitive-experiential self-theory. *Dual-process theories in social psychology*, 462-482.
- Fox, J., & Ahn, S. J. G. (2013). Avatars: Portraying, exploring, and changing online and offline identities. *Handbook of Research on Technoself: Identity in a Technological Society*, 255-271.
- Friedman, D., Steed, A., & Slater, M. (2007). Spatial social behavior in second life. *Intelligent virtual agents*, 4722, 252-263.
- Hafich, A., Fowlkes, J., & Lenihan, P. (2007, January). Use of Haptic Devices to Provide Contextual Cues in a Virtual Environment for Training. In *The Interservice/Industry Training, Simulation & Education Conference (I/ITSEC)* (Vol. 2007, No. 1). National Training Systems Association.
- Hoffman, H. G., Meyer, W. J., Ramirez, M., Roberts, L., Seibel, E. J., Atzori, B., Sharar, S. R., & Patterson, D. R. (2014). Feasibility of articulated arm mounted oculus rift virtual reality goggles for adjunctive pain control during occupational therapy in paediatric burn patients. *Cyberpsychology, Behaviour and Social Networking*, 17, 397-401.
- Intelligence Science Board. (2009). *Intelligence Interviewing*. National Intelligence Agency, USA.
- Isen, A. M. (2001). An influence of positive affect on decision making on complex situations: Theoretical issues with practical implications. *Journal of Consumer Psychology*, 11, 75-85.
- Janofsky, J. S. (2006). Lies and coercion: Why Psychiatrists should not participate in police and intelligence interrogations. *J Am Acad Psychiatry & Law*, 34, 472-478.
- Jenkins, M. C., & Dando, C. J. (2012). *Computer-mediated investigative interviews: A Potential screening tool for the detection of insider threat*. In S. Tomblin, N. MacLeod, R. Sousa-Silva, & M. Coulthard (Eds.). *Proceedings of the 10th Biennial Conference of the International Conference of Forensic Linguistics*, Birmingham: Centre for Forensic Linguistics, 272-282.
- Kozhevnikov, M., Evans, C., & Kosslyn, S. M. (2014). Cognitive style as environmentally sensitive individual differences in cognition: A modern synthesis and applications in education, business, and management. *Psychological Science in the Public Interest*, 15, 3-33.
- Kuykendall, J. (2010). Future Training Innovations. *FLETC Journal*, 8, 9-12.
- Lang, P. J., Bradley, M. M., & Cuthbert, B. N. (1999). *International affective picture system (IAPS): Instruction manual and affective ratings*. The center for research in psychophysiology, University of Florida.
- Lele, A. (2013). Virtual reality and its military utility. *Journal of Ambient Intelligence and Humanized Computing*, 4, 17-26.
- Lin, H., & Wang, H. (2014). Avatar creation in virtual worlds: Behaviors and motivations. *Computers in Human Behavior*, 34, 213-218.
- Marett, K., & George, J. F. (2004). Deception in the case of one sender and multiple receivers. *Group Decision and Negotiation*, 13, 29-44.
- Matheson, K. (1991). Social cues in computer-mediated negotiations: Gender makes a difference. *Computers in Human Behavior*, 7, 137-145.
- McKenna, K. Y., & Green, A. S. (2002). Virtual group dynamics. *Group Dynamics: Theory, Research, & Practice*, 6, 116.
- Nye, J. S. (2004). *Soft power: The means to success in world politics*. Public Affairs.

- Ormerod, T. C., & Dando, C. J. (2014). Finding a Needle in a Haystack: Towards a Psychologically Informed Method for Aviation Security Screening. *Journal of Experimental Psychology: General*. doi.org/10.1037/xge0000030
- Parlow, J. W., & Thompson, M. *Effective law enforcement training with virtual reality software*.
- Richardson, B., Taylor, P. J., Snook, B., Conchie, S., & Bennell, C. (in press). Language style matching and confessions in police interrogations. *Law & Human Behavior*.
- Shaw, D. (2006). Dilemma of interest. *American Journalism Review*. February/March.
- Suler, J. (2004). The online disinhibition effect. *Cyberpsychology & behavior*, 7, 321-326.
- Tausczik, Y. R., & Pennebaker, J. W. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of language & social psychology*, 29, 24-54.
- Taylor, P. J., Dando, C. J., Ormerod, T. C., Ball, L. J., Jenkins, M. C., Sandham, A., Menacere, T. (2013). Detecting insider threats through language change. *Law & Human Behavior*, 37, 267-275. doi:10.1037/lhb0000032.
- Tranter, C., Dando, C. J., & Sandham, A. (2014). *Cognition in Context: Investigating the impact of individual differences on information-gathering interviews in synthetic environments*. Paper presented at the International Investigative Interviewing Research Group Annual Conference, 2nd – 4th June, Lausanne, Switzerland.
- Wahlquist, J. A. (2010). Setting and agenda for the high-value detainee interrogation group. *International Journal of Intelligence Ethics*, 1, 24-45.
- Wall, D. S., & Williams, M. L. (2013). Policing cybercrime: networked and social media technologies and the challenges for policing. *Policing & Society*, 23, 409-412.
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of personality & social psychology*, 67, 1049.
- Wiederhold, B. K., Soomro, A., Riva, G., & Wiederhold, M. D. (2014). Future directions: Advances of virtual environments' designed for pain management. *Cyberpsychology, Behaviour & Social Networking*, 17, 414-422.
- Witmer, B. G., & Singer, M. J. (1998). Measuring presence in virtual environments: A presence questionnaire. *Presence: Teleoperators and virtual environments*, 7, 225-240.
- Yar, M. (2013). *Cybercrime and society*. London: Sage.
- Yee, N., & Bailenson, J. N. (2007). The proteus effect: Self transformations in virtual reality. *Human Communication Research*, 33, 271-290.
- Zanbaka, C., Goolkasian, P., & Hodges, L. (2006). *Can a virtual cat persuade you?: The role of gender and realism in speaker persuasiveness*. Proceedings of the SIGCHI conference on Human Factors in computing systems, 1153-1162.
- Zhang, L. F., & Sternberg, R. J. (2006). *The nature of intellectual styles*. Psychology Press.
- Zhang, L. F., & Sternberg, R. J. (2009). Revisiting the value issue in intellectual styles. *Perspectives on the nature of intellectual styles*, 63-85.



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Neurolinguistic Programming (NLP) in Investigative Interviewing: Recommended Alternative Methods

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Abstract

Neurolinguistic programming (NLP), intended as methods of influence and communication, was created by observing and categorizing assumed expert psychotherapists' behaviours in the 1970s. Since then, NLP has been offered not only as a way to treat a variety of physical and mental health issues, maximize human potential and improve interpersonal interactions, but also as a method to increase the effectiveness of criminal interviews and interrogations. However, research has consistently failed to find support for the basic premises of NLP. In lieu of NLP, empirically-based communication and negotiation methods (including active listening and verbal and non-verbal behavior matching and mimicry) should be used as a means to build rapport and trust between parties.

Keywords: *Neurolinguistic Programming, rapport, Linguistic Style Matching, mimicry*

Introduction

In this paper, we address the use of “neurolinguistic programming” (NLP) to elicit information during intelligence interviews and interrogations. Proponents of NLP within law enforcement communities claim that it increases rapport and interpersonal communication, helps detect deception, and makes the interviewer more persuasive (Gordon & Fleisher, 2006; Gray, 1991; Hess, 1997; Mayers, 1993; Rhoads & Solomon, 1987; Sandoval & Adams, 2001; Vrij & Lochun, 1997; Zulawski & Wicklander, 2002). Although independent observations of the use of NLP by intelligence agencies are not available, we have heard numerous claims to its usefulness and know that it recently has been part of military interrogation training courses (Adis, Ferro &

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Wisecarver, 2011; Druckman & Swets, 1988). However, decades of scientific studies have failed to find any consistent support for the basic tenants of the NLP “model” (Witkowski, 2012). Part of what we consider here, then, are reasons for the discrepancies between science and practice, and how these might be remedied.

Richard Bandler and John Grinder initially developed NLP based on the notion that theories of neurology and linguistics could be used to “program” an individual’s mind, body, and behavior. “Neuro” was used to refer to the mind and how mental life is organized, “linguistic” to language and how it is used and affects individuals, and “programming” to sequences of repetitive behaviors and how individuals act with purpose (Dilts, Grinder, Bandler, & DeLozier, 1980). The primary purpose of NLP was to create models of human excellence. In order to create these models, Bandler and Grinder observed people they identified as “therapeutic wizards” (Bandler & Grinder, 1983; Einspruch & Forman, 1985) from an eclectic array of fields including, behavioral psychology and cybernetics (Ashby, 1965), the Palo Alto school of brief therapy (Watzlawick, Beavin, & Jackson, 1967), gestalt therapy (Perls, 1969), cybernetic epistemology (Bateson, 1972), transformational grammar (Grinder & Elgin, 1973), Ericksonian hypnotherapy (Bandler & Grinder, 1975; Grinder, DeLozier, & Bandler, 1977), and person-centered counseling (Rogers, 1983). Rather than understanding the success of these “wizards” in terms of psychological principles, Bandler and Grinder simply observed and categorized their behaviors and used those categories to construct a model of interpersonal influence. Neither Bandler nor Grinder was interested in gathering empirical data to validate NLP; thus, they collected only anecdotal and testimonial data (Craft, 2001; Von Bergen et al., 1997). The resulting “model” of NLP was proposed to be “therapeutic magic” founded on beliefs in unlimited human potential, created reality, and access to the subconscious through observing body language cues (Dilts et al., 1980; Sharpley, 1987).

NLP proponents claimed that it could treat a number of conditions such as phobias, depression, addictive behaviors (e.g., smoking), homosexuality (sic), psychosomatic illnesses, and learning disorders, sometimes within a single, one-hour session (Bandler & Grinder, 1979). They also suggested that myopias and the common cold could be cured through the combination of NLP and hypnosis (Grinder & Bandler, 1981). The use of hypnotic regression with NLP was suggested to not only treat a problem, but also to render the sufferer amnesic such that they would deny ever having had the problem (Grinder & Bandler, 1981; Heap, 2008). In addition, proponents claimed that NLP could be used to maximize human potential and as such, a novice martial artist could use NLP to beat an expert or NLP could be used to develop a photographic memory (Bandler & Grinder, 1979; Bandler, 1992). Over the past four decades, NLP has become a popular interpersonal skills and communication training method, adopted worldwide by educators, psychotherapists, sports trainers, marketers, medics, and lawyers (e.g., Heap, 1988; Holdevici, 1990; Lankton, 2003; Tosey & Matheson, 2003, 2010; Mann, Vrij, Nasholm, Warmelink, 2012).

Criminal investigators describe NLP as useful for developing rapport in an interview or interrogation (e.g., Sandoval & Adams, 2001), where the focus is on the interviewer matching an interviewee’s nonverbal behavior, the manner in which they speak, and their choice of words. More often, NLP has been proposed as a way of helping an interrogator discern truth telling from lying in criminal interviews and interrogations (e.g., Gordon & Fleisher, 2006; Hess, 1997; Rhoads & Solomon, 1987; Zulawski & Wicklander, 2002). Here the focus is on an alleged relationship between eye movement and thought: for example, if right-handed people are visualizing an imagined event (i.e., something they are lying about), they are likely to look up to their right; if they are visualizing a remembered event (i.e., presumably something that they are not lying about), they are likely to look up and to their left.

The NLP Model: Evidence For and Against

The first tenant of NLP is that individuals unconsciously encode their thoughts and experiences using one of the five senses, referred to as their internal preferred representational system (PRS). The PRS is the individual's usual and preferred way of interacting with the world (Von Bergen et al., 1997). The most common presumed PRSs are the three principal senses: sight, sound, and touch (kinesthetic). An NLP-trained practitioner tries to identify which sensory mode a subject is using by listening to verbal predicates (i.e., verbs, adjectives, and adverbs: Vrij & Lochun, 1997). Optimal communication is assumed to occur among those who use the same predicate system (Fromme & Daniell, 1984). As such, when a practitioner uses language that is exhibited in a subject's PRS, the subject feels more understood, which makes him/her more susceptible to the practitioner's influence (Von Bergen et al., 1997). For example, if a practitioner uses statements such as "I see what you mean" in conversations with an individual who has a visual PRS, or "I hear you saying..." when talking to someone with an auditory PRS, the subject is assumed to relax and develop a greater sense of trust in the practitioner.

Research has yielded scant evidence to bolster the claims regarding any relationship between a PRS and the words people use. Birholtz (1981) investigated a preference for sensory words by asking subjects to describe positive and negative experiences from their pasts, presents, and anticipated futures. The results indicated that a significant number of subjects preferred the kinesthetic modality; and there was no correlation between this finding and the subjects' self-report of their PRSs. Individuals vary their use of verbal predicates based on the situation (Fromme & Daniell, 1984; Graunke & Roberts, 1986; Hammer, 1983; Mercier & Johnson, 1984) and seamlessly shift from one sensory modality to another (Atkin, Hollandsworth, & Alcorn, 1983; Sheehan, 1967). And, although forensic NLP practitioners propose that reflecting a subject's PRS by a practitioner will lead to an increase in confession rates due to increased feelings of trust (Rhoads & Solomon, 1987), there is no evidence to support this (Vrij & Lochun, 1997).

The proposal that NLP-based practices facilitate rapport building in witness or suspect interviews (e.g., Royce, 2005; Sandoval & Adams, 2001) may be more accurately described as the effective use of *active listening*, where a listener takes an active role in the communications process by using restatement and summary, and responding to nonverbal cues and feelings (Knippen & Green, 1994; Rogers, 1983). The effectiveness of such listening may exist independently of the practitioner identifying a witness's or suspect's PRS. Active listening has been shown to correlate strongly with social skills, including emotional sensitivity (Gearhart & Bodie, 2011), and facilitate therapist-client (e.g., Fitzgerald & Leuder, 2010), doctor-patient (e.g., Fassaert, van Dulmen, Schellevis, & Bensing, 2007), and sales person-buyer (e.g., Drollinger & Warrington, 2006) communications. Active listening also has been used to deal with volatile confrontations in police negotiations (Dolan & Fuselier, 1989; Noesner & Webster, 1997; Van Hasselt, Baker, Romano, Schlessinger, Zucker, Dragone, & Perera, 2006).

The second tenant of NLP is the presumed relationship between an individual's PRS, eye movements, and cognitive processing. In the 1960s and 1970s, eye movement research found that, while answering questions, people typically shifted their gaze away from the questioner. It was proposed that this was due to functional asymmetries in the two halves of the brain (Ehrlichman & Micic, 2012; Kinsbourne, 1972). Rightward shifts were thought to occur when a question elicited verbal thinking (e.g., word definitions), and leftward shifts to occur when a question involved visual imagery (e.g., describing what a specific item looks like). NLP practitioners drew on these findings and proposed that eye movements also provide insight into a subject's PRS and can be used to determine if their responses are constructed (i.e., deceptive) or recollected

(i.e., truthful) by observing gaze direction. For instance, if a subject with a visual PRS is fabricating images, he/she will look up and to the left. When visually remembering images, his/her eyes will shift up and to the right. On the other hand, someone with an auditory PRS who is constructing a response will maintain a level gaze toward the left. If the same person is remembering sounds or words, his/her gaze will be level and to the right (Dilts et al., 1980).

Multiple research studies have examined the relationship between eye movements and cognition that is assumed by the NLP model (Baddley & Predebon, 1991; Elich, Thompson, & Miller, 1985; Farmer, Rooney, & Cunningham, 1985; Poffel & Cross, 1985; Thomason, Arbuckle, & Cady, 1980; Wertheim, Habib, & Cumming, 1986), and have found no support for the claim that eye movements correspond to the sensory modality triggered by a question, or that there is a relationship between eye movements and deception. Eye movements are influenced by a number of factors, including emotion, culture, hand dominance, social interaction, and cognitive processing. American, English-speaking subjects tend to look to the left when they are asked emotional (Schwartz, Davidson, & Maer, 1975; Tucker, Roth, Arneson, & Buckingham, 1977), stressful (Tucker et al., 1977), or embarrassing (Libby & Yaklevich, 1973) questions. Eye movements while viewing faces (Blais, Jack, Scheepers, Fiset, & Caldara, 2008) and visual scenes (Chua, Boland, & Nisbett, 2005) vary as a function of country of origin (East Asian versus Western Caucasian). Right-handed (vs. left-handed) individuals tend to turn their heads and eyes to the right when solving verbal problems, and to the upper left when solving mathematical problems and visualizing familiar places (Kinsbourne, 1972). Eye movement during social interactions and social thoughts are driven by many influences, including distance between the interviewer and examinee (Argyle & Cook, 1976; Ehrlichman & Weinberger, 1978; Exline, 1971; Kendon, 1976). Wertheim, Habib, and Cumming (1986) reported that, although subjects looked upward when asked to recall visual information, eye movements for kinesthetic and visual recall were inconsistent. People are more likely to make no eye movements (i.e., they will stare) when answering visuospatial questions (Ehrlichman & Weinberger, 1978). Finally, the identification of a PRS through eye movements (or via self-report) is not supported by any empirical data (Sharpley, 1984), making the existence of a PRS highly suspect. For example, interviewing studies in which eye movements and verbal responses were simultaneously recorded demonstrate that eye movement does not correlate with word choice (Coe & Scharcoff, 1985; Gumm, Walker, & Day, 1982) or with deception (Mann et al., 2012; Wiseman, Watt, ten Brinke, Porter, Couper, & Rankin, 2012).

The third major NLP claim is that a practitioner can exact influence over a person by matching or mirroring the subject's PRS as it is manifest via non-verbal behaviors, aspects of speech, body posture, breathing, and blink rate (Heap, 2008). That matching and mirroring modulates communication has some empirical support (independently of whether these are engaged via a PRS). Multiple studies have found that deliberate, yet careful and limited, use of mimicry of verbal and nonverbal behaviors leads to more effective dialogue. Mimicry has been shown to strengthen the speaker's likability and their skill of smoothly communicating in certain situations (Chartrand & Bargh, 1999). For example, high verbal mimicry is associated with better outcomes for the mimicker in negotiation settings (Curhan & Pentland, 2007; Maddux, Mullen, & Galinsky, 2008). Also, mimicry may aid in developing and feeling empathy, in turn improving the understanding between communicators (Adelmann & Zajonc, 1989; Hatfield, Cacioppo, & Rapson, 1992; Izard, 1971; Stel, van Baaren, & Vonk, 2008; Tomkins, 1963). Finally, matching body language may lead to greater levels of interpersonal rapport (Charny, 1966; Dabbs, 1969; LaFrance & Broadbent, 1976).

Science-Based Methods

In summary, there is no clear empirical support for the basic tenants of NLP, that individuals deal with the world in terms of a PRS (i.e., the existence of a PRS), that a PRS is manifest in terms of preferred verbal predicates and eye movements, and that one can exert influence over another by matching/mirroring their PRS. Although the existence of a PRS is not empirically supported, the use of mirroring and matching in communication has substantial research to warrant its use. As such, it is possible for NLP practitioners to employ methods for which there is scientific support (via the use of active listening, mirroring and mimicry).

Additional examples may be found in studies of negotiation, and we summarize some of these briefly here because they illustrate additional, science-based matching-language tactics beyond those taught within the NLP framework. When people actively engage with each other during an interaction, they converge on how they perceive both the situation and potential solutions to an issue. This type of coordination, described as “Linguistic Style Matching (LSM),” (where “style” refers to the linguistic presentation of ideas and arguments; Niederhoffer & Pennebaker, 2002), leads to synchrony of word use and smoothness of interactions (Bernieri & Rosenthal, 1991; Jones, 1988; Putnam, Wilson, & Turner, 1990; Simons, 1993). When two people talk, they pattern and coordinate their verbal statements such that each individual’s cues and responses fit into a series of interconnected events (Auld & White, 1959; Putnam, 1985; Taylor & Thomas, 2008). Similarly, social distance in communication is reduced through adapting gestures, idioms, and behavioral strategies to be more similar to a conversational partner (Giles & Coupland, 1991). Since nonverbal mimicry can increase persuasiveness (Van Swol, 2003), matching nonverbal behaviors like facial expressions, kinetics, and proxemics maximizes the communication process (Ellis & Beattie, 1986).

Operational support for these findings comes from police negotiators engaging in LSM by embracing the same motivational focus as the hostage taker (Taylor, 2002a, 2002b; Taylor & Donald, 2004). When negotiators established high levels of affiliation and interdependence via “synchronized turn taking, mutual reciprocation of the other’s focus, and general verbal complementarity” (Donohue, 2001; Giebels & Taylor, 2009; Taylor and Thomas, 2008, p. 6), rapport and trust was more likely. Taylor and Thomas (2008) explored the dynamics of LSM by examining audio-taped interactions between police negotiators and nine actual hostage takers. The researchers were interested in the differences between successful and unsuccessful negotiations in terms of degree of LSM and turn-by-turn matching (versus verbal dominance) over both the entire negotiation and during the final stages of the interaction. They found that negotiators in successful interactions demonstrated significant turn-by-turn matching in their use of articles, prepositions, present-tense words, level of positive emotion, social concern, and exploration of the cause of the incident at a rate of almost 10 times that of the unsuccessful negotiators. These actions led the hostage takers to reciprocate the negotiators’ present-centered focus, discussion of social issues, and positive affects, as well as focus on problem solving through inclusion, insight, and causation. In addition, successful negotiations maintained consistent LSM over time.

Various explanations have been offered for the persistence of the NLP “model,” and its prevalence in practice and training despite decades of contrary science (Druckman & Swets, 1988; Heap, 2008; Vrij & Lochun, 1997). What we propose here is that the persistence can be understood, in part, by the fact that some components of NLP practice, although not originally proposed on the basis of science, reflect rigorous psychological theorizing and empirical data, and

are effective in various applications. Active listening and mimicry/mirroring aspects of NLP may be examples of such.

If this reasoning is sound, then it follows (i) that these components may be taught without reference to the underlying NLP model, for which there is scant evidence, and (ii) that systematic observations of police (and intelligence) interviews and interrogations may reveal other methods and techniques that, while not easily identified with any current scientific studies, would be useful starting points for such analyses. Two methods that have been shown to significantly improve witness and criminal interviews and interrogations, the Cognitive Interview (Fisher & Geiselman, 1992) and the Strategic Use of Evidence (Hartwig, Granhag, Strömwall, & Vrij, 2005) were initially formulated for analysis on the basis of independent, systematic observations of police in practice (described in Fisher, Geiselman, & Raymond, 1987), and Hartwig, Granhag, Strömwall, & Vrij, 2004, respectively).

Such science-practitioner partnerships can be of mutual use to both parties. Importantly for the practitioner, methods that are grounded in sound psychological theorizing are more likely to generalize across individuals and situations. In addition, research will help delineate the limits within which a particular method or technique may be useful. The effectiveness of mimicry is offered here as an example. The complexity of the use of mimicry was foreshadowed by an early NLP study on the effectiveness of NLP in persuading individuals to join a professional organization. The individuals were presented either with only general information on the organization (as a control condition), direct communication (containing general information and a suggestion to join the organization), or an indirect persuasive message about the organization (Dixon, Parr, Yarbrough, & Rathael, 1986). Indirect persuasion involved using NLP methods of metaphors and mirroring mood and demeanor. The authors found no significant differences in likelihood to join the organization among the three groups. However, contrary to the predictions of NLP, the direct message persuaded more individuals to take action than the indirect persuasive message.

Subsequent studies have shown that the use of intentional mimicry may backfire. If people become aware that they are being mimicked, it can be perceived as mockery and threaten rapport between the interactional partners (Lakin & Chartrand, 2003). Mimicking a subject also can affect how the practitioner judges a subject to be more or less trustworthy (Holton & Pyszczynski, 1989). Stel, van Dijk, and Oliver (2009) investigated whether one can understand what others are feeling when the mimicked expressions do not reflect the person's true emotions. They told target individuals to either lie or tell the truth and asked observers to either mimic or not mimic a target's facial and behavioral movements. Researchers later asked the same observers to determine the targets' credibility. The results indicated that non-mimickers were more accurate than mimickers in perceiving the targets' emotions and detecting truthfulness. This contradicts the notion that mimicry aids in the understanding of people's experienced emotions – mimicry may actually hinder the assessment of an individual's true sentiments and, in turn, inhibit detecting deception.

To further complicate matters, mimicry is not a tool that can be wielded with total control because it often occurs automatically and non-consciously. Unless trained otherwise, observing others leads to naturally and non-consciously mimicking of their behaviors, postures, gestures, mannerisms, words, accents, speech rates, tones of voice, speech rhythms, and facial expressions (Akehurst & Vrij, 1999; Bernieri, 1988; Bock, 1986, 1989; Cappella & Panalp, 1981; Chartrand & Bargh, 1999; Dimberg, 1982; Giles & Powesland, 1975; Levelt & Kelter, 1982; Neumann & Strack, 2000; Webb, 1969, 1972). The mere perception of emotionality in voice is sufficient for non-conscious mimicry to occur (Siegman & Reynolds, 1984), and behavioral matching may occur even when interacting with strangers (Bernieri, 1988; Dabbs, 1969).

Of particular relevance to police and intelligence interviewers and interrogators, if an interviewer believes the subject of the interview is not trustworthy and displays behaviors, feelings, and verbal styles that demonstrate distrust in the subject, the subject may non-consciously mimic the negative affect of the interviewer, resulting in behavioral confirmation (Snyder, Tanker, & Berscheid, 1977; Chen & Bargh, 1997; Word, Zanna, & Cooper, 1974) and possibly stereotyping. In turn, confirmation bias occurs when the interviewer uses personal opinion to interpret the subject's conduct as evidence of a lack of trustworthiness (Akehurst & Vrij, 1999). This cycle can continue and disrupt the development and/or maintenance of rapport.

In 1985, the Army Research Institute requested the National Research Council (NRC) of the National Academy of Sciences to assess several techniques designed to examine human performance (Druckman & Swets, 1988). The strategies under review, including NLP, were developed outside conventional behavioral science research and often claimed high effectiveness. A Committee was formed and their tasks involved evaluating the existing scientific evidence for each technique, as well as proposing general evaluation guidelines for technologies and their potential applications. After assessing NLP, the Committee concluded that there was little, if any evidence to support its central assumptions. In fact, they reported that NLP theories consisted of metaphors with "little impact or acceptance in the scientific literature" and "concatenated anecdotes and facts that lead to no particular conclusion" (p. 141-142). They found no proof showing that NLP is an effective social influencing strategy and no scientific support for a relationship between PRS and gaze direction, posture, tone, or language patterns. They also determined that not a single study had evaluated NLP's effectiveness as a model for expert performance. As to whether NLP really measured up to its claims, the Committee concluded that insufficient evidence existed (all evidence was either negative or neutral) to proclaim that it works (Druckman & Swets, 1988; Swets & Bjork, 1990).

In the end, the NRC Committee recommended that any new technique or method to be implemented by the Army must be evaluated using a scientifically sound procedure, supported "by adequate scientific evidence or compelling theoretical argument, or both" (p.17), compared to alternatives designed for similar purposes, and confirmed with successful field tests (Druckman & Swets, 1988; Swets & Bjork, 1990). We propose here to add a critical item to this list of recommendations, which is to begin via independent, systematic observations of current practices. This may not only engage the practitioner and increase the likelihood of the use of science-based methods, it should also provide insights and identify opportunities for research that will grow the science as well as inform the practice.

References

- Adelmann, P. K., & Zajonc, R. (1989). Facial efferece and the experience of emotion. *Annual Review of Psychology*, 40, 249-280.
- Adis, C., Ferro, G., & Wisecarver, M. (2011). *Interrogation Courses Content Analysis*. Technical Report No. 719, PDRI: Washington DC.
- Akehurst, L., & Vrij, A. (1999). Creating suspects in police interviews. *Journal of Applied Social Psychology*, 29, 192-210.
- Argyle, M., & Cook, M. (1976). *Gaze and mutual gaze*. Cambridge, UK: Cambridge University Press.
- Ashby, W. (1965). *An Introduction to Cybernetics*. London: Methune.
- Atkin, T., Hollandsworth, J., & Alcorn, J. (1983). Visual and verbal modes of information processing and cognitive coping strategies: An extension and replication. *Behavior Therapy*, 21, 69-73.

- Auld, F., Jr., & White, A. M. (1959). Sequential dependencies in psychotherapy. *Journal of Abnormal and Social Psychology*, 58, 100-104.
- Baddley, M., & Predebon, J. (1991). Do the eyes have it? A test of neurolinguistic programming's eye-movement hypothesis. *The Australian Journal of clinical Hypnotherapy and Hypnosis*, 12, 1-23.
- Bandler, R. (1992). *Magic in action*. Capitola, CA: META Publications.
- Bandler, R., & Grinder, J. (1975a). *Patterns of the Hypnotic Techniques of Milton H. Erickson, M.D. Vol 1*. Cupertino, CA: Meta Publications.
- Bandler, R., & Grinder, J. (1979). *Frogs into princes: Neurolinguistic Programming*. Moab, UT: Real People Press.
- Bandler, R., & Grinder, J. (1983). *Reframing: Neurolinguistic programming and the transformation of meaning*. Moab, UT: Real People Press.
- Bateson, G. (1972). *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*. New York: Balantine.
- Bernieri, F. J. (1988). Coordinated movement and rapport in teacher-student interactions. *Journal of Nonverbal Behavior*, 12, 120-138.
- Bernieri, F. J., & Rosenthal, R. (1991). Interpersonal coordination: Behavior matching and interactional synchrony. In R. S. Feldman, & B. Rimé (Eds.), *Fundamentals of Nonverbal Behavior*. Cambridge, England: Cambridge University Press.
- Birholtz, L. (1981). *Neurolinguistic programming: Testing some basic assumptions* (Doctoral dissertation, Fielding Institute, 1981). Dissertation Abstracts International, 41: 3565B.
- Blais, C., Jack, R. E., Scheepers, C., Fiset, D., & Caldara, R. (2008). Culture shapes how we look at faces. *PLoS ONE*, 3, e3022. doi: 10.1371/journal.pone.0003022.
- Bock, J. K. (1986). Syntactic persistence in sentence production. *Cognitive Psychology*, 18, 355-387.
- Bock, J. K. (1989). Closed-class immanence in sentence production. *Cognition*, 31, 163-186.
- Cappella, J. N., & Panalp, S. (1981). Talk and silence sequences in informal conversations: III. Interspeaker influence. *Human Communication Research*, 7, 117-132.
- Charny, E. J. (1966). Psychosomatic manifestations of rapport in psychotherapy. *Psychosomatic Medicine*, 28, 305-315.
- Chartrand, T. L., & Bargh, J. A. (1999). The chameleon effect: The perception-behavior link and social interaction. *Journal of Personality and Social Psychology*, 76, 893-910.
- Chen, M., & Bargh, J. A. (1997). Nonconscious behavioral confirmation processes: The self fulfilling nature of automatically-activated stereotypes. *Journal of Experimental Social Psychology*, 33, 541-560.
- Chua, H. F., Boland, J. E., & Nisbett, R. E. (2005). Cultural variation in eye movements during scene perception. *Proceedings of the National Academy of Science*, 102, 12629-12633.
- Coe, W. C., & Scharcoff, J. A. (1985). An empirical evaluation of the neurolinguistic programming model. *The International Journal of Clinical and Experimental Hypnosis*, 33, 310-318.
- Craft, A. (2001). Neuro-linguistic programming and learning theory. *The Curriculum Journal*, 12, 125-136.
- Curhan, J. R., & Pentland, A. (2007). Thin slices of negotiation: Predicting outcomes from conversational dynamics within the first 5 minutes. *Journal of Applied Psychology*, 92, 802-811.
- Dabbs, J. M. (1969). Similarity of gestures and interpersonal influence. *Proceedings of the 77th Annual Convention of the American Psychological Association*, 4, 337-338.
- Dilts, R., Grinder, J., Bandler, R., & DeLozier, J. (1980). *Neuro-linguistic programming: Volume 1 – The study of the structure of subjective experience*. Capitola, CA: Meta Publications.

- Dimberg, U. (1982). Facial reactions to facial expressions. *Psychophysiology*, 19, 643-647.
- Dixon, P. N., Parr, G. D., Yarbough, D., Rathael, M. (1986). Neurolinguistic programming as a persuasive communication technique. *The Journal of Social Psychology*, 126, 545-550.
- Dolan, J. T., & Fuselier, G. D. (1989). A guide for first responders to hostage situations. *FBI Law Enforcement Bulletin*, 58, 14-21.
- Drollinger, T., Comer, L. B., & Warrington, P. T. (2006). Development and validation of the active empathetic listening scale. *Psychology and Marketing*, 23, 161-180.
- Druckman, D., & Swets, J. A. (1988). *Enhancing human performance. Issues, Theories, and Techniques*. Washington, DC: National Academy Press.
- Ehrlichman, H., & Micic, D. (2012). Why do people move their eyes when they think? *Current Directions in Psychological Science*, 21, 96-100.
- Ehrlichman, H., & Weinberger, A. (1978). Lateral eye movements and hemispheric asymmetry: A critical review. *Psychological Bulletin*, 85, 1080-1101.
- Einspruch, E. L., & Forman, B. D. (1985). Observations concerning research literature on neurolinguistic programming. *Journal of Counseling Psychology*, 32, 589-596.
- Elich, M., Thompson, R. W., & Miller, L. (1985). Mental imagery as revealed by eye movements and spoken predicates: A test of neurolinguistic programming. *Journal of Counseling Psychology*, 32, 622-625.
- Ellis, A., & Beattie, G. (1986). *The Psychology of Language and Communication*. Guildford, U.K: Psychology Press.
- Exline, R. V. (1971). Visual interaction: The glances of power and preference. In J.K. Cole (Ed.), *Nebraska Symposium on Motivation (vol. 19)*. Lincoln, NB: University of Nebraska Press.
- Farmer, A., Rooney, R., & Cunningham, J. R. (1985). Hypothesized eye movements of neurolinguistic programming: A statistical artifact. *Perceptual and Motor Skills*, 61, 717-718.
- Fassaert, T., van Dulmen, S., Schellevis, F., & Bensing, J. (2007). Active listening in medical consultations: Development of the Active Listening Observation Scale (ALOS-glocal). *Patient Education and Counseling*, 68, 258-264.
- Fisher, R. P., & Geiselman, R. E. (1992) *Memory-enhancing techniques in investigative interviewing: The cognitive interview*. Springfield, IL: C.C. Thomas.
- Fisher, R. P., Geiselman, R.E., & Raymond, D.S. (1987). Critical analysis of police interviewing techniques. *Journal of Police Science & Administration*, 15, 177-185.
- Fitzgerald, P., & Leudar, I. (2010). On active listening in person-centered solution-focused psychotherapy. *Journal of Pragmatics*, 42, 3188-3198.
- Fromme, D. K., & Daniell, J. (1984). Neurolinguistic programming examined: Imagery, sensory mode, and communication. *Journal of Counseling Psychology*, 31, 387-390.
- Gearhart, C. C., & Brodie, G. D. (2011). Active-empathic listening as a general social skill: Evidence from bivariate and canonical correlations. *Communication Reports*, 24, 86-98.
- Giebels, E., & Taylor, P. J. (2009). Interaction patterns in crisis negotiations: Persuasive arguments and cultural differences. *Journal of Applied Psychology*, 94, 5-19.
- Giles, H., & Coupland, N. (1991). *Language: Contexts and Consequences*. Pacific Grove, CA: Brooks Cole.
- Gordon, N., & Fleisher, W. (2006). *Effective Interviewing and Interrogation Techniques*, 2nd Ed. New York: Academic Press.
- Graunke, B., & Roberts, T. K. (1985). Neurolinguistic programming: The impact of imagery tasks on sensory predicate usage. *Journal of Counseling Psychology*, 32, 525-530.

- Gray, R. (1991). Tools for the trade: Neuro-linguistic programming and the art of communication. *Federal Probation, 55*, 11-16.
- Grinder, J., & Bandler, R. (1981). *Trance-formations: Neuro-linguistic programming and the structure of hypnosis*. Moab, UT: Real People Press.
- Grinder, J., & Elgin, S. (1973). *A Guide to Transformational Grammar*. New York: Holt, Rinehart, and Winston.
- Grinder, J., DeLozier, J., & Bandler, R. (1977). *Patterns of the Hypnotic Techniques of Milton, H. Erickson, M.D. Vol II*. Capitola, CA: Meta Publications.
- Gumm, W., Walker, M., & Day, H. (1982). Neurolinguistic programming: Method or myth? *Journal of Counseling Psychology, 29*, 327-330.
- Hammer, A. (1983). Matching perceptual predicates: Effect on perceived empathy in a counseling analogue. *Journal of Counseling Psychology, 30*, 172-179.
- Hartwig, M., Granhag, P.A., Strömwall, L.A., & Vrij, A. (2005). Detecting deception via strategic disclosure of evidence. *Law and Human Behavior, 29*, 469-484.
- Hartwig, M., Granhag, P.A., Strömwall, L.A., & Vrij, A. (2004). Police officers' lie detection accuracy: Interrogating freely versus observing video. *Police Quarterly, 7*, 429-456.
- Hatfield, E., Cacioppo, J. T., & Rapson, R. L. (1994). *Emotional Contagion*. Cambridge: Cambridge University Press.
- Heap, M. (1988). Neurolinguistic programming: An interim verdict. In M. Heap (Ed.) *Hypnosis: Current clinical, experimental and forensic practices*, (pp. 268-280). Croom Helm: London.
- Heap, M. (2008). The validity of some early claims of neuro-linguistic programming. *Skeptical Intelligencer, 11*, 1-8.
- Hess, B. (1997). *Interview and Interrogation for Law Enforcement*. Anderson Publishing Co., Cincinnati, OH.
- Holdevici, I. (1990). Neurolinguistic programming: A form of mental training in high performance shooting. *Revue Roumaine des Sciences Sociales - Série de Psychologie, 34*, 169-173.
- Holton, B., & Pyszczynski, T. (1989). Biased information search in the interpersonal domain. *Personality and Social Psychology Bulletin, 15*, 415-422.
- Izard, C. E. (1971). *The Face of Emotion*. New York: Appleton-Century-Crofts.
- Jones, T. S. (1988). Phase structures in agreement and no-agreement mediation. *Communication Research, 15*, 470-495.
- Kendon, A. (1967). Some functions of gaze-direction in social interaction. *Acta Psychologica, 26*, 22-63.
- Kinsbourne, M. (1972). Eye and head turning indicates cerebral lateralization. *Science, 197*, 539-541.
- Knippen, J. T., & Green, T. B. (1994). How the manager can use active listening. *Public Personnel Management, 23*, 357 – 359.
- LaFrance, M., & Broadbent, M. (1976). Group rapport: Posture sharing as a nonverbal indicator. *Group & Organisation Studies, 1*, 328-333.
- Lakin, J. L., & Chartrand, T. L. (2003). Using nonconscious behavior mimicry to create affiliation and rapport. *Psychological Science, 14*, 334-339.
- Lankton, S. R. (2003). *Practical magic: A translation of basic neuro-linguistic programming into clinical psychotherapy*. Crown House Publishing Ltd: Norwalk CT.
- Levelt, W. J. M., & Kelter, S. (1982). Surface form and memory in question answering. *Cognitive Psychology, 14*, 78-106
- Libby, W. L., Jr., & Yaklevich, D. (1973). Personality determinants of eye contact and direction of gaze aversion. *Journal of Personality and Social Psychology, 27*, 197-206.

- Maddux, W. W., Mullen, E., & Galinsky, A. D. (2008). Chameleons bake bigger pies and take bigger pieces: Strategic behavioral mimicry facilitates negotiation outcomes. *Journal of Experimental Social Psychology, 44*, 461-468.
- Mann, S., Vrij, A., Nasholm, E., Warmelink, L., Leal, S., & Forrester, D. (2012). The direction of deception: Neuro-linguistic programming as a lie detection tool. *Journal of Police and Criminal Psychology*. doi 10:1007/s11896-011-9097-8.
- Mayers, K. S. (1993). Enhancement of psychological testimony with the use of neurolinguistic programming techniques. *American Journal of Forensic Psychology 11*, 53-60.
- Mercier, M., & Johnson, M. (1984). Representational system predicate use and convergence in counseling: Gloria revisited. *Journal of Counseling Psychology, 31*, 161-169.
- Neumann, R., & Strack, F. (2000). "Mood contagion": The automatic transfer of mood between persons. *Journal of Personality and Social Psychology, 79*, 211-223.
- Niederhoffer, K. G., & Pennebaker, J. W. (2002). Linguistic style matching in social interaction. *Journal of Language and Social Psychology, 21*, 337-360.
- Nisbett, R., & Miyamoto, Y. (2005). The influence of culture: Holistic versus analytic perception. *Trends in Cognitive Science, 9*, 467-473.
- Noesner, G. W., & Webster, M. (1997). Crisis negotiations as crisis intervention. In *Crisis negotiations: A compendium* (pp. 3 – 19). Quantico, VA: Crisis Negotiation Unit, Critical Incident Response Group, FBI Academy.
- Perls, F. (1969). *Gestalt Therapy Verbatim*. Moab, Utah: Real People Press.
- Poffel, S., & Cross, H. J. (1985). Neurolinguistic programming: A test of the eye-movements hypothesis. *Perceptual and Motor Skills, 61*, 1262.
- Putnam, L. L. (1985). Bargaining as task and process: Multiple functions of interaction sequences. In R.L. Street, & J.N. Cappella (Eds.), *Sequence and Pattern in Communicative Behavior*. London: Edward Arnold.
- Putnam, L. L., Wilson, S. R., & Turner, D. (1990). The evolution of policy arguments in teachers' bargaining. *Argumentation, 4*, 129-152.
- Rhoads, S. A., & Solomon, R. (1987). Subconscious rapport building: Another approach to interviewing. *The Police Chief, 4*, 39-41.
- Rogers, C.R. (1983). *Freedom to Learn for the 1980's*. Columbus, Ohio: Merrill.
- Royce, T. (2005). The negotiator and the bomber: Analyzing the critical role of active listening in crisis negotiations. *Negotiation Journal, 21*, 5-27.
- Sandoval, V. A., & Adams, S. H. (2001). Subtle skills for building rapport: Using Neuro-linguistic programming in the interview room. *F.B.I. Law Enforcement Bulletin, 70*. Retrieved 29 April, 2013, from http://www.au.af.mil/au/awc/awcgate/fbi/nlp_interviewing.htm.
- Schwartz, G. E., Davidson, R. J., & Maer, F. (1975). Right hemisphere lateralization for emotions in the human brain: Interactions with cognition. *Science, 190*, 286-288.
- Sharpley, C. F. (1984). Predicate matching in NLP: A review of research on the preferred representational system. *Journal of Counseling Psychology, 31*, 238-248.
- Sharpley, C. F. (1987). Research findings on Neurolinguistic Programming: Nonsupproptive data or an untestable theory? *Journal of Counseling Psychology, 34*, 103-107.
- Sheehan, P. (1967). Reliability of a short test of imagery. *Perceptual and Motor Skills, 25*, 744.
- Siegmán, A. W., & Reynolds, M. (1984). The facilitating effects of interviewer rapport and the paralinguistics of intimate communications. *Journal of Social and Clinical Psychology, 2*, 71-88.
- Simons, T. (1993). Speech patterns and the concept of utility in cognitive maps: The case of integrative bargaining. *Academy of Management Journal, 36*, 139-156.

- Snyder, M., Tanke, E. D., & Berscheid, E. (1977). Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. *Journal of Personality and Social Psychology*, 35, 656-666.
- Stel, M., van Baaren, R. B., & Vonk, R. (2008). Effects of mimicking: Acting prosocially by being emotionally moved. *European Journal of Social Psychology*, 38, 965-976.
- Stel, M., van Dijk, E., & Oliver, E. (2009). Want to know the truth? Then don't mimic! *Psychological Science*, 6, 693-699.
- Swets, J. A., & Bjork, R. A. (1990). Enhancing human performance: An evaluation of "New Age" techniques considered by the U.S. Army. *Psychological Science*, 1, 85-96.
- Taylor, P. J. (2002a). A partial order scalogram analysis of communication behavior in crisis negotiation with the prediction of outcome. *International Journal of Conflict Management*, 13, 4-37.
- Taylor, P. J. (2002b). A cylindrical model of communication behavior in crisis negotiations. *Human Communication Research*, 28, 7-48.
- Taylor, P. J., & Donald, I. (2004). The structure of communication behavior in simulated and actual crisis negotiations. *Human Communication Research*, 30, 443-478.
- Taylor, P. J., & Thomas, S. (2008). Linguistic style matching and negotiation outcome. *Negotiation and Conflict Management Research*, 1, 263-281.
- Thomason, T. C., Arbuckle, T., & Cady, D. (1980). Test of the eye-movement hypothesis of neurolinguistic programming. *Perceptual and Motor Skills*, 51, 230.
- Tomkins, S. S. (1963). *Affect, imagery, consciousness* (Vol. 2). New York: Springer.
- Tosey, P., & Mathison, J. (2003). Neuro-linguistic programming and learning theory: a response. *The Curriculum Journal*, 14, 371-388.
- Tosey, P., & Mathison, J. (2010). Neuro-linguistic programming as an innovation in education and teaching. *Innovations in Education and Teaching International*, 47, 317-326.
- Tucker, D., Roth, R. S., Arneson, B. A., & Buckingham, V. (1977). Right hemisphere activation during stress. *Neuropsychologia*, 15, 697-700.
- Van Swol, L. M. (2003). The effects of nonverbal mirroring on perceived persuasiveness, agreement with an imitator, and reciprocity in a group discussion. *Communication Research*, 30, 461-480.
- Von Bergen, C. W., Soper, B., Rosenthal, G. T., & Wilkinson, L. V. (1997). Selected alternative training techniques in HRD. *Human Resource Development Quarterly*, 8, 281-294.
- Vrij, A., & Lochun, S. K. (1997). Neuro-linguistic programming and the police: Worthwhile or not? *Journal of Police and Criminal Psychology*, 12, 25-31.
- Watzlawick, P., Beavin-Bavelas, J., & Jackson, D. (1967). Some Tentative Axioms of Communication. In *Pragmatics of Human Communication - A Study of Interactional Patterns, Pathologies and Paradoxes*. New York: W. W. Norton.
- Webb, J. T. (1969). Subject speech rates as a function of interviewer behaviour. *Language and Speech*, 12, 54-67.
- Webb, J. T. (1972). Interview synchrony: An investigation of two speech rate measures. In A. W. Siegman, & B. Pope (Eds.), *Studies in dyadic communication* (pp. 115-133). New York: Pergamon.
- Wertheim, E. B., Habib, C., & Cumming, G. (1986). Test of the neurolinguistic programming hypothesis that eye-movements relate to processing imagery. *Perceptual and Motor Skills*, 62, 523-529.

- Winter, L., & Uleman, J. S. (1984). When are social judgments made? Evidence for the spontaneousness of trait inferences. *Journal of Personality and Social Psychology*, 47, 237-252.
- Wiseman, R., Watt, C., ten Brinke, L., Porter, S., Couper, S.-L., & Rankin, C. (2012). The eyes don't have it: Lie detection and neuro-linguistic programming. *PLoS One*, 7, 1-5.
- Witkowski, T. (2012). A review of research findings on Neuro-Linguistic Programming. *The Scientific Review of Mental Health Practice*, 9, 29-40.
- Word, C. O., Zanna, M. P., & Cooper, J. (1974). The nonverbal mediation of selffulfilling prophecies in interracial interaction. *Journal of Experimental Social Psychology*, 10, 109-120.
- Zulawski, D., & Wicklander, D. (2002). *Practical Aspects of Interview and Interrogation*. 2nd Ed. CRC Press, Boca Raton FL.