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Exploiting Verbal Markers of Deception Across Ethnic Lines: An Investigative Tool for Cross-Cultural Interviewing

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Members of a federal task force in a Midwestern city are investigating a series of bank robberies committed by individuals sympathetic to a radical terrorist organization operating in the Middle East. The most recent robbery took place the previous Thursday at 3:00 p.m. The investigation has developed a suspect conversant in English, but whose native tongue is Arabic.

In preparation for the interview, investigators ask him to provide them with a statement written in English describing his activities on the day the most recent robbery took place. Trained to analyze written statements, the investigators wonder if the verbal and structural markers of deception they look for in native English speakers and writers will transcend any cultural or ethnic differences. In other words, when nonnative speakers and writers lie in English, do they use the same verbal markers of deception, regardless of their ethnicity or familiarity with the language?

In the United States individuals from different cultures and language groups are routinely interviewed in situations where investigators need to differentiate truth from lies. From U.S. Customs officials, who guard the nation's borders; to patrol officers, who conduct traffic stops on highways; to those tasked with conducting complex investigations with possible international implications, law enforcement officials need to make accurate assessments as to the veracity or deception of individuals, often based on quick, limited encounters.

As the nation becomes more diverse culturally and ethnic minorities continue to grow in numbers, scenarios, such as this one, play out daily within the law enforcement, intelligence, and military communities. Many persons interviewed come from diverse ethnic groups that have immigrated to the United States and are learning English as a second language. While they bring with them many cultural differences in customs, behaviors, and languages, they generally have in common their desire to speak and write the English language.

Investigators trained to identify verbal indicators of deception and veracity in English often are uncertain as to the merits of these markers when they come face to face with someone in the process of learning it as a second language. Knowing if there are consistent linguistic markers of deception that are applicable to all English speakers, regardless of whether or not it is their native language, can provide useful insight for an investigator called upon to interview or investigate an individual from a different ethnic background.

The authors' purpose is to provide the investigative community with the results of a unique study conducted with people in the San Francisco, California, Bay Area from different language and ethnic groups.[1] That study provided empirical evidence demonstrating that specific valid categories of linguistic markers differentiate truthful and fabricated statements across people of different ethnic and cultural backgrounds. It yielded important information about the potential cross-cultural applicability of some linguistic markers of deception that investigators typically can rely upon irrespective of the ethnicity of the individual being investigated. To this end, the authors hope to enhance investigators' confidence in looking for and exploiting specific verbal markers of deception when analyzing written statements, interview transcripts, and depositions or when listening to the words an individual uses during an interview. Many of the descriptions of the study have been previously published.[2]

STATEMENT ANALYSIS

One technique for examining written statements, interview transcripts, or even the choice and structure of words provided by an interviewee commonly is referred to as *statement analysis*, based on the premise that word use and grammar structures differ when people lie as opposed to when they tell the truth.[3] Because words make up sentences and sentence construction follows a predetermined set of grammar rules, a careful analysis of word use and grammar structure typically will yield useful insight into writers' or speakers' thought processes that can aid investigators in identifying veracity, ascertaining motive, and detecting deception. There are varying degrees of empirical support for different statement analysis techniques.

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What is less known in the applicable literature is the degree to which verbal indicators of deception vary across cultures or ethnicities.[4]

STUDY

In an effort to address this issue, the authors' study focused on participants from four cultural/ethnic groups—Chinese, Hispanic, Middle Eastern, and European American—who engaged in an adapted version of a mock-theft scenario in which they were asked to either steal a check from a file room and lie about it to investigators or not steal a check and tell the truth. The Chinese, Hispanic, and Middle Eastern individuals either were born and raised outside the United States or were natives, but did not have English as their first language.

After being assigned to one of the conditions, each participant engaged in three interviews in English, two prior to entering the file room (screening and secondary interviews) and one afterward (investigative interview). Prior to the third interview, participants were asked to write a statement in English about their activities while in the file room. The responses provided by the participants during the interviews and written statements were coded according to several empirically validated categories of statement analysis.

Verbal Markers of Deception

Statement analysis markers were selected for this study in light of the existing empirical support for them in conjunction with the diverse investigative experience of two of the authors.[5] The markers were selected on an a priori basis before any of the transcripts or written statements were coded. As a result of the study, specific markers that could indicate deception on the part of the speaker or writer were identified as being most statistically prominent in the participants' interview transcripts and written statements.

Extraneous Information

Truth tellers typically provide more details relevant to the question raised; conversely, liars provide more information that does not answer the question.[6] Extraneous information helps writers or speakers avoid a question posed by the investigator, justify their actions, or even help distance themselves from the act through lying by commission. It enables a writer or speaker to engage in a discussion irrelevant to the question posed.[7]

Equivocation

Deceptive persons often use intentionally vague or ambiguous words. They enable speakers or writers to distance themselves from the act of lying by tempering the action about to be described or by discounting the message even before it is transmitted.[8] Equivocation includes words or phrases, such as "maybe," "believe," "kind of," "sort of," "about," or "to the best of my knowledge."

Nonprompted Negation

When responding to an open-ended question, such as Tell me what you did last Thursday, honest individuals provide information pertaining to what they actually did on the day in question. Nonprompted negation occurs when speakers or writers share what they did not do and use words, such as "no," "not," "never," "didn't," "couldn't," or "wouldn't." A response, such as "I didn't talk to anyone," does not answer the question, and research has shown that when persons offer what they did not do in response to an open-ended question, a strong possibility exists that they are attempting to deceive.[9]

Moderating Adverbs

These adverbs fall under three categories. They include 1) *intensifying adverbs* (e.g., "very," "really," "truthfully," or "honestly"), typically used when speakers or writers are attempting to convince another person of something; 2) *minimizing adverbs* (e.g., "only," "just," "simply," or "merely"), often employed to downplay or minimize the role of the speaker or writer; and 3) *editing adverbs* (e.g., "after," "then," "next," "while," "so," and "when"), possibly used as a *temporal lacuna*, suggesting an attempt by the speaker or writer to intentionally edit or omit information that might be critical to the inquiry.[10]

Results

The study revealed that the same verbal markers of deception investigators typically look for in native English speakers also existed in statements from participants representing the different cultural/ethnic groups. Analysis of three interview (screening, secondary, and investigative) transcripts in English, in addition to an examination of the statement written by each participant in English, produced statistically significant findings using the statement analysis markers employed in the study. Moreover, there were no cultural/ethnic differences in the rates by which the statement analysis categories differentiated truth from lies.

These findings supported the notion that some linguistic markers of deception can differentiate truth from lies across people of different cultural/ethnic backgrounds and suggested a possible cross-cultural similarity in the structure of memory, recall of information, and psychological demands placed on individuals who lie about the recollection or their future intentions.

The results pointed to a potential universal mechanism of lying that can be identified by specific linguistic markers. For the investigator the findings suggest that they can rely upon these verbal markers as dependable indicators of deception to look and listen for when analyzing a written statement or while interviewing an individual from a different cultural/ethnic group.[11]

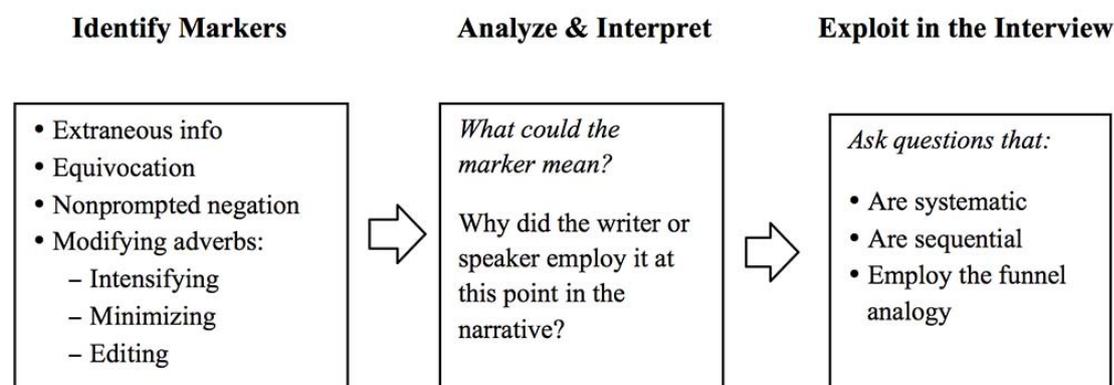
THREE-FOLD PROCESS

Researchers have concluded what experienced investigators have known intuitively for some time—that is, when most people fail to tell the truth, they will omit information as opposed to telling an outright lie.[12] As such, people generally will use verbal markers of deception in an effort to exclude or gloss over details in their narrative.[13]

Investigators should focus on learning to recognize the verbal markers of deception that the study, described above, identified as most prominent in the written statements and interview transcripts. They then should become familiar with what the specific indicators could signify; that is, investigators should be able to analyze and interpret the use of the markers within the context of the narrative, be it in a written statement or during an interview.

Finally, investigators should strive to develop a thorough questioning approach to use during interviews that is designed to exploit their analysis and interpretation of the verbal markers of deception. The approach should be *systematic*, capitalizing on subjects’ use of the verbal markers and guiding them to provide more complete and accurate information. It also should be *sequential*, asked in a manner consistent with the chronological flow of interviewees’ oral or written narratives. And, the approach should employ the *funnel analogy*, wherein the questioning process is viewed as a funnel that in its design is broad near the top, gradually narrowing until it culminates in a small opening at the bottom. Using this analogy, interviewers begin with broad, open-ended inquiries gradually followed up with more specific, narrow questions culminating with the employment of specific behavioral assessment or indicator-type questions.[14] Throughout the process, investigators should continue to focus on those areas in subjects’ narratives where any verbal markers of deception may exist.

Verbal Markers of Deception



The opening scenario serves as an excellent example. Prior to conducting the interview, investigators asked the subject to provide them with a statement written in English describing his activities on the day the most recent robbery took place. The question that investigators posed to the suspect was, “Tell us everything that you did last Thursday.”[15] In response, he provided the following written statement:

I got up around 8:00 a.m. I didn’t talk to anyone. I then drove to Mike’s house, where we watched a soccer game on TV. The team from England was playing the national German team. I don’t really recall doing much else except going back home at precisely 4:15 p.m.

Members of the task force analyzing the suspect’s brief written statement should see many of the same verbal markers of deception that they typically do in deceptive narratives written by native English speakers. This strengthens their case as they proceed to interview the suspect using the insights gained in the course of their analysis. Their objective is to exploit the weaknesses apparent in his story by following up with specific investigative questions on topics based on the analysis of the statement. The suspect has revealed that, perhaps, there is much more to what he did on the day in question than what he thus far has provided, and those hidden details likely will emerge in the strategic and tactical follow-up based on the analysis of the statement.

Verbal Marker	Interpretation	Exploitation
What to look/listen for	What could the marker mean?	Investigative questions
<i>around</i> 8:00 a.m. <i>precisely</i> at 4:15 p.m.	<i>Equivocation</i> —words or phrases that are intentionally vague, such as “maybe,” “believe,” “kind of,” “around,” “sort of,” and “to the best of my knowledge”	You said you “got up around 8:00 a.m.” What time did you wake up?

	<p>Why is the writer being vague about the time he got up? Is this his baseline verbal behavior? In contrast, why is he so specific about the time he got home?</p>	<p>Tell me more about what you did before you got up?</p> <p>How do you know it was “around 8:00 a.m.”?</p> <p>Who was with you when you went to sleep?</p> <p>Who was with you when you woke up that morning?</p>
<p>I <i>didn't</i> talk to anyone.</p>	<p><i>Nonprompted negation</i>—words used to tell what he did not do, as opposed to what he did do, possibly in an attempt to deceive</p> <p>Why does he feel the need to write that he didn't talk to <i>anyone</i> (equivocation)? Who did he talk to? Why is he not more specific about the identity of this individual?</p>	<p>Walk me through your morning from the moment you woke up until the time you got to Mike's house.</p> <p>You said, “I didn't talk to anyone.” What did you mean by this? Why was this significant enough for you to include in your statement?</p> <p>Who <i>did</i> you talk to?</p> <p>What did you talk about?</p> <p>Where did this take place?</p>
<p>I <i>then</i> drove to Mike's house.</p>	<p><i>Editing adverb</i>—words, such as “then,” “later,” “so,” “as,” “when,” “after,” and “while,” are used to edit or omit information.</p> <p>What is the writer leaving out about his activities prior to driving to Mike's house?</p>	<p>Walk me through your morning and tell me what you did from the time you left home to the time you arrived at Mike's. Take me through it step by step. What happened next?</p>
<p><i>The team from England was playing the national German team.</i></p>	<p><i>Extraneous info</i>—anything that does not answer the question and may be used by writers or speakers to justify their actions or deflect because they do not want to answer the question</p> <p>Why does he feel the need to talk</p>	<p>You obviously like soccer. Tell me more about the game.</p> <p>Walk me through your viewing of it. Besides you and Mike, who else was there? What else did you do while you were at Mike's?</p>

	about the soccer game? What actions, activities, or conversations with Mike or others is he omitting?	What time did you arrive? Leave?
I <i>don't</i> really recall	<i>Nonprompted negation</i> What is he choosing not to reveal about his activities at Mike's or after he left Mike's prior to returning home?	What time did you leave Mike's? OK, you wrote that you got home at "precisely 4:15 pm." Walk me through your day, from the time you left Mike's until you got home.
I don't <i>really</i> recall	<i>Intensifying adverb</i> —words, such as "really," "honestly," and "truthfully," used to try to convince the reader or listener Why does he feel the need to convince the interviewers that he did not recall what he did?	See questions above. (Apparently, the writer is attempting to avoid discussing his actions, and this must be thoroughly explored.)
Doing <i>much else</i>	<i>Equivocation</i> Why does he use such imprecise, vague language?	You wrote that you "don't really recall doing much else." OK, walk me through this. You're at Mike's watching the soccer game. What happened next?

CONCLUSION

Equipped with a methodical approach based upon their analysis and exploitation of the verbal markers of deception within the bank robbery suspect's statement, investigators patiently probe the merits of his story. During the interview they listen for any additional and spontaneous verbal markers that the suspect might employ to conceal his activities. They then can use the same methodical approach rooted in their experience and supported by relevant research.

Based on the study described above, empirical evidence exists that clearly shows the merits of statement analysis as an investigative tool that is not limited to native English speakers.[16] To the contrary, it is a valuable tool investigators can employ regardless of whether the interviewee is a native or nonnative English speaker. Investigators can rely on verbal markers of deception within the English language that can point to areas of possible lying by omission. The study's findings should bolster the confidence of investigators who obtain statements from or conduct interviews of individuals from different ethnic groups and have been trained to listen for, interpret, and exploit universal verbal markers of deception.

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Endnotes

- [1] David Matsumoto, Hyeon C. Hwang, and Vincent A. Sandoval, "Ethnic Similarities and Differences in Linguistic Indicators of Veracity and Lying in a Moderately High Stakes Scenario," *Journal of Police and Criminal Psychology* 30, no. 1 (March 2015): 15-26, <http://link.springer.com/article/10.1007/s11896-013-9137-7#> (accessed January 8, 2015).
- [2] Ibid.
- [3] Udo Undeutsch, "The Development of Statement Reality Analysis," in *Credibility Assessment*, ed. John C. Yuille (New York, NY: Kluwer Academic/Plenum Publishers, 1989), 101-119, http://link.springer.com/chapter/10.1007%2F978-94-015-7856-1_6# (accessed January 8, 2015). Undeutsch espoused a technique known as Statement Validity Analysis (SVA), founded on a hypothesis that statements based on actual memories differ from those based on fabrication or fantasy.
- [4] Studies examining the verbal indicators of veracity and deception in non-English languages have been conducted, but it is difficult to compare results due to study differences. See, for example, Iris Blandon-Gitlin, Kathy Pezdek, D. Stephen Lindsay, and Lisa Hagen, "Criteria-Based Content Analysis of True and Suggested Accounts of Events," *Applied Cognitive Psychology* 23 (August 2008): 901-917, http://www.cgu.edu/PDFFiles/sbos/Pezdek_Criteria_Based.pdf (accessed January 13, 2015).
- [5] Both Vincent A. Sandoval and Lisa Skinner are retired FBI agents and polygraph examiners who taught statement analysis at the FBI National Academy.
- [6] Aldert Vrij, "Criteria-Based Content Analysis: A Qualitative Review of the First 37 Studies," *Psychology, Public Policy, and Law* 11, no. 1 (March 2005): 3-41.
- [7] For more information on the use of extraneous information, see Susan H. Adams, "Statement Analysis: What Do Suspects' Words Really Reveal?" *FBI Law Enforcement Bulletin*, October 1996, 12-20.
- [8] Walter Weintraub, *Verbal Behavior in Everyday Life* (New York, NY: Springer Publishing Co., 1989).
- [9] Wendell C. Rudacille, *Identifying Lies in Disguise* (Dubuque, IA: Kendall-Hunt Publishing, 1994); and John R. Schafer, "Grammatical Differences Between Truthful and Deceptive Written Narratives" (PhD diss., Fielding Graduate University, 2007), 52. Schafer refers to the same phenomenon as *spontaneous negation* and found it to be a viable predictor of deception.
- [10] Don Rabon, *Investigative Discourse Analysis* (Durham, NC: Carolina Academic Press, 1994). Rabon posited that deceptive people select specific words to influence the perception of the reader, rather than convey factual information. Rabon's theory is that "an individual who aims to convey rather than convince will behave differently in terms of his/her narrative development." It has been the authors' experience that the use of intensifying and minimizing adverbs are typically designed to either convince the listener/reader of something or to downplay the subject's role in some activity. Paul Ekman, *Telling Lies: Clues to Deceit in the Marketplace, Politics, and Marriage* (New York, NY: W.W. Norton & Co., 1992); Ekman argues that most liars do not typically fabricate entire stories, but will tell the truth up to the point where they want to conceal information, omit details they wish to hide, and then continue with the truthful portion. See, for example, Rabon in *Investigative Discourse Analysis*, where the author contends that to conceal this information, the liar will use a grammatical device referred to as a "temporal lacuna." In the authors' experience people who choose to lie typically will do so by omitting details, usually by using editing adverbs. See also Schafer, "Grammatical Differences Between Truthful and Deceptive Written Narratives," 84. Schafer refers to editing adverbs as "text bridges" and identifies the following examples as most commonly used in both truthful and deceptive statements: "then," "so," "after," "when," "as," "while," "once," and "next."
- [11] Matsumoto, Hwang, and Sandoval, "Ethnic Similarities and Differences in Linguistic Indicators of Veracity and Lying."
- [12] Ekman, *Telling Lies*.
- [13] For more information on specific words that interviewees use to camouflage or conceal an action or behavior, see Vincent A. Sandoval, "Interview Clues: Words That Leave an Investigative Trail," *FBI Law Enforcement Bulletin*, January 2008, 1-9, <https://leb.fbi.gov/2008-pdfs/leb-january-2008> (accessed June 26, 2015).
- [14] For more information on the "funnel" concept and question construction, see Vincent A. Sandoval, "Strategies to Avoid Interview Contamination," *FBI Law Enforcement Bulletin*, October 2003, 1-12, <https://leb.fbi.gov/2003-pdfs/leb-october-2003> (accessed June 26, 2015).
- [15] When eliciting a written statement from an individual, investigators should ask a broad, open-ended question to obtain as much information as possible. In the example interviewers know that the bank robbery took place at 3:00 p.m. However, by getting the suspect to document all of his activities during the day, investigators can gain better insights based upon what the suspect chooses to say and to not disclose.
- [16] Matsumoto, Hwang, and Sandoval, "Ethnic Similarities and Differences in Linguistic Indicators of Veracity and Lying."

Verbal Markers of Deception

Identify Markers

- Extraneous info
- Equivocation
- Nonprompted negation
- Modifying adverbs:
 - Intensifying
 - Minimizing
 - Editing



Analyze & Interpret

What could the marker mean?

Why did the writer or speaker employ it at this point in the narrative?



Exploit in the Interview

Ask questions that:

- Are systematic
- Are sequential
- Employ the funnel analogy