

Backwards storytelling surfaces deception cues, new study reveals

Theories abound about how best to tell if a suspect is lying to you, short of hooking him up to a polygraph. But based on recently reported experiments, a Force Science advisor thinks one of the best ways to surface cues to possible deception may be simply to have the subject tell his or her story backwards. This approach is not foolproof, admits Dr. Edward Geiselman. "No method for detecting deception is," he says. "But this technique is scientifically based and appears to be the quickest and easiest way to provoke indicators of potential fabrication--'red flags' or 'hot spots' that should prompt you to investigate further what someone is telling you."

Dr. Bill Lewinski, executive director of the Force Science Institute, thinks Geiselman's new work may have a role to play in officer-involved shooting investigations, and Geiselman agrees.

Geiselman is a professor of psychology at UCLA, as well as a faculty member of the popular Force Science Analysis certification course for law enforcement personnel. He has testified as an expert witness in more than 300 criminal trials and has written over 100 research papers and 6 books. He and his colleague Dr. Ron Fisher are considered the "godfathers" of cognitive interviewing, the multi-sensory memory-enhancement method for questioning witnesses, crime victims, and others whose personal recollections are important to capture as fully and accurately as possible.

The idea of having a subject recite a narrative account of an occurrence backwards, beginning in the present and telling what happened step by step in reverse order, was utilized by Geiselman initially years ago as he and Fisher fine-tuned their cognitive interviewing tactics. "We found that when someone tells of an experience in chronological order and then is prompted to re-tell it in reverse sequence, frame by frame, they tend to remember more details as they go backwards," Geiselman told *Force Science News*. More recently, he became intrigued with suggestions from some researchers that backwards narration might cause certain indicators of deception to surface more readily when concocted stories are being told because of the extra mental stress involved in reverse recounting. With a group of senior psych students, he devised a complex research project to explore and more precisely define that possibility.

Each of 24 volunteers was given a list of several topics (winning a sports event, being involved in an auto accident, taking a trip to Las Vegas, etc.) and told to select 2 of them, one about which to tell a true autobiographical story and the other to tell a confabulated autobiographical story. Each participant was given 5 minutes to think about "what you want to say" in each story. Then he or she was told to tell the stories separately in private to a tape recorder "in about as much detail as you would if you were telling it to a friend over coffee."

There was one catch, though. Each story was to be told in reverse chronological order: "Start at the very end of your story," participants were instructed, "and systematically work backward with what happens right before that and then right before that and so on" back to the beginning.

The average time to tell a story proved to be about 4 minutes. Later, the tapes were played for members of the research team acting as "scorers." They were listening for certain "vocal and verbal cues" that researchers in previous studies had identified as "primary indicators" for evaluating the truthfulness of a narrative account. "These had to do with voice characteristics, content, presentational style, and so on," Geiselman says.

Because of a coding system that was kept confidential, the scorers did not know which stories were truthful and which were made up. But when their independent analyses were completed and correlated with the secret codes, there was a striking, "statistically reliable" consensus: certain "story attributes" were significantly greater in the invented accounts than in the genuine recollections.

Geiselman itemizes these telltale deception cues and explains why the reverse story telling was critical in causing them to emerge:

1. Extreme brevity.

"The made-up stories tended to be bare-bones narratives," Geiselman says. "Actually, I expected just the opposite, figuring if I was going to tell a fabrication I'd want to add details to make it seem more authentic. But instead we found that the false stories typically were much shorter than the genuine accounts, offering only 'highlights' of the action that supposedly took place. Imagining more perhaps required too much additional effort."

2. Sparse details.

"When lying, our subjects generally offered very few details or elaborations. Their truthful stories, in contrast, tended to be spontaneously embedded with contextual details--specific times and places were given, interactions with other people and impressions of what was going on were described, sights and sounds and other sensory stimuli were often mentioned."

3. Justifications.

"When details were offered in the fabrications, they tended to be in the form of justifications or rationalizations. When being untruthful, the subjects significantly more often would spontaneously offer explanations for why they took some action or encountered particular circumstances--'I headed down that street because...' or 'My brother is a traditionalist, which is why... '--even though these explanations were not key elements of the story. It may be that they thought that by volunteering 'logical' explanations for various things they made it seem more authentic, or maybe this was a way they convinced themselves that their fabricated story was holding together. In any case, they were much less likely to throw in justifications and rationalizations when they were being truthful."

4. Flawed speech.

"We found that the truthful stories were told with a certain fluidity of speech. This makes sense because when giving factual accounts they were simply 'reading out' of an actual memory record. In their deceptive stories, they had many more starts, stops, sentence fragments, corrections--hesitant, labored speech, not smooth. Also we found a tendency when lying to alternate between slow moments and accelerated bursts. They seemed to be slowing down to think hard about the concocted story, then speeding up as if to make up for lost time."

5. Non-verbal giveaways.

The subjects didn't realize it, but they were watched through one-way glass by some of the research team while recording their tales. When reciting false material, they tended to exhibit certain gestures not seen so much during truthful accounts. "During deception, they'd more often press their lips together firmly and look away like they were trying to think, to concentrate hard," Geiselman says. "Also their hand gestures were different. When being truthful, they tended to gesture away from their body, the opposite--toward their chest--when telling making up stories. And, when lying, grooming gestures were more evident." Telling a story in reverse order is difficult for anyone, Geiselman explains. "But people who are being deceptive have an *unusual* difficulty with this. They must tell their story based solely on their imagination because they have no stored perceptual experience to draw upon.

"At any one time, a person has a particular capacity for holding information in their conscious mind. This is called your 'working memory.'

"Inventing an account *and* telling it in reverse puts an exceptional load on their cognitive capacity, and while they're concentrating so intensely on keeping their story straight, the indicators of deception are more likely to 'bleed out.' This is especially true if they have not carefully fabricated and thoroughly rehearsed a story in advance, which most suspects probably have not before coming in contact with police."

As part of a program funded by the Dept. of Homeland Security's Center for Domestic Preparedness to the Los Angeles Metropolitan Transportation Authority, Geiselman has devised training to teach mass transit officers to monitor for deception cues when questioning potential terrorist suspects. He believes that similar instruction, based on his research, would be useful for patrol officers and detectives dealing with run-of-the-mill criminals and witnesses as well.

"In field situations when you encounter a suspicious individual, spend a little time chatting him up so you get a feel for his baseline verbal patterns, then catch him by surprise by having him tell his story in reverse, repeatedly prompting him to tell you '...and what happened before that,'" Geiselman suggests.

"Watch for the kind of deception indicators we found as a quick-and-dirty assessment of him. They're not reliable enough to *prove* he's lying, but they are enough to motivate you to dig deeper."

The backwards-narrative technique "is really a good procedure," in Lewinski's estimation. "Increasing the cognitive load to provoke deception cues is a very important concept. It could be recommended in OIS investigations when there's suspicion that an officer is not being truthful in his account of what happened.

"It's essential to remember, though, that these are imperfect cues, just indicators of *possible* deceit, not guarantees. After an OIS, for example, an officer's statement may be sparse on details because he genuinely does not remember or never perceived a lot of what happened in a brief, rapidly evolving, life-threatening encounter. Yes, lying takes a cognitive load, but so does trying to remember things that were on the periphery of your attention when they occurred.

"More research should help in refining and applying the information Dr. Geiselman has documented."

Indeed, Geiselman says, the study is only a start. Additional exploration is planned. Currently he and his research team are underway with capturing examples of deception indicators on videotape for purposes of further study and training.

[A report on the UCLA study, "Indicators of Deception in an Oral Narrative: Which are More Reliable?", appears in the *American Journal of Forensic Psychiatry*, Vol. 30, Issue 4, 2009. Dr. Geiselman can be reached at: geiselma@psych.ucla.edu]