

Evaluating Truthfulness and Detecting Deception

By Robert J. Parrott Jr.

The philosopher Immanuel Kant believed that lying is always morally wrong. Truth is, lies are part of human nature. Studies tell us that we hear as many as 200 lies a day. One study in particular found that we tell two to three lies — including little white ones — in a 10-minute conversation. Robert S. Feldman et al., “Self-Presentation and Verbal Deception: Do Self-Presenters Lie More?,” *24 Basic and Applied Social Psychology* 163-170 (2002).

Lie detection has significant implications for the judicial system, yet detecting deception often proves to be difficult. The scientific community acknowledges that, on average, people identify lies only about as accurately as they would if they flipped a coin. See, e.g., Charles F. Bond & Bella M. DePaulo, “Accuracy of Deception Judgments,” *10 Personality and Social Psychology Review* 214-234 (2006).

A 1991 study by Dr. Paul Ekman — an American psychologist considered the world’s leading expert on facial expressions — and Dr. Maureen O’Sullivan published in *American Psychologist* found that the average person is only slightly better than 50% accurate at detecting deception. And professional lie catchers, like federal law enforcement officers and judges, are no exception. Paul Ekman & Maureen O’Sullivan, “Who Can Catch a Liar?,” *46 American Psychologist* 913-920 (1991).

The accuracy rate among professionals certified with the Facial Action Coding System (FACS) is much higher, thanks to specialized, proprietary training. The ability to detect deception can be further enhanced with the help of computerized facial recognition software. This software, available to Licensed Deception Detection Examiners, N.C.G.S. § 74C-2 *et seq.*, takes a baseline reading of the neutral face, then measures any deviations. This program gives the examiner a real-time reading of the person’s emotional state, and facilitates the identification of incongruities between verbal statements and non-verbal gestures.

Why is deception detection so important? Consider this real-life anecdote. A lawyer with student debt hangs her shingle and gets her first big case. It’s a nursing home slip-and-fall case in a contributory negligence state with seven-figure hospital bills. The lawyer invests \$50,000 into the case, only to discover at her client’s deposition that the client was on drugs at the time of the accident.

If the young lawyer had just vetted the client’s story using a scientifically rigorous deception detection technique, she may have avoided financial catastrophe.

If the average person hears 200 lies a day, lawyers probably hear twice that. From opposing counsel to witnesses to your own clients, there’s no one in the litigation arena whose truthfulness you should take for granted. That’s why the adage, “Trust but verify” is useful, and that’s why deception detection tools are so relevant to our litigation practices.

The Discovery and Significance of Microexpressions

In 1872, Charles Darwin first suggested that emotions and their expressions were universal. Ninety years later, Silvan Tomkins put forth the idea that emotion was the basis of human motivation, and that the seat of emotion was in the face.

In the late 1960s, Ekman pioneered the study of emotions and their relation to facial expressions, conducting groundbreaking research on decoding the human face. Ekman discovered that the human subjects he studied sometimes betrayed deception attempts through microexpressions that occur when a person deliberately or unconsciously conceals a feeling. He further concluded that these reactions are automatic, almost instantaneous, and unconscious, and that the greater the consequences of the lie, the greater the likelihood the liar would make a mistake. Ekman went on to develop the Facial Action Coding System (FACS) as an exhaustive atlas of all facial expressions.

Ekman tells us, “The face can be a valuable source of deception clues for the lie-catcher, because it can lie and tell the truth, and often does both at the same time. The face often contains two messages — what the liar wants to show and what the liar wants to conceal. Some expressions serve the lie, providing untrue information. Yet others betray the lie because they look false, and feelings sometimes leak despite efforts to conceal them. False but convincing expressions may occur one moment and concealed expressions leak the very next moment.” Paul Ekman, *Telling Lies* 123 (2009).

Ekman believes most people fail to detect lies from the face because they can’t sort the “felt” from the “false” expressions.

Normal facial expressions — “macroexpressions” in deception of detection lingo — usually last between ½ second and 4 seconds. They often repeat, and are congruent with what is being said. Microexpressions are more brief, usually lasting between 1/15 and 1/25 of a second. They often display a concealed emotion and are the result of attempted suppression or repression.

Sincere facial expressions of emotion tend to be more symmetrical, with natural onset and offset times. Conversely, if there’s an incongruity between a person’s verbal and non-verbal communication, that may be an indicator of deception. However, examiners can’t take such expressions at face value, and must consider other explanations for the behavior in question.

We define microexpression detection as the reading of involuntary facial expressions that reveal suppressed manifestations of “felt” emotion. No matter a person’s race, culture, ethnicity, nationality, gender, age, religion, or any other demographic variable, everyone expresses the same basic emotions. Even congenitally blind people who have never seen a face — let alone a facial expression of emotion — make the same facial expressions as sighted people do when they feel a strong emotion. David Matsumoto & Bob Willingham, “Spontaneous Facial Expressions of Emotion of Congenitally and Noncongenitally Blind Individuals,” *96 Journal of Personality and Social Psychology* 1-10 (2009).

The Science of the Brain

How does the brain's wiring cause a microexpression? The short answer, I believe, is that you have two separate neural circuits that control facial movements: a "slow-twitch" circuit which controls conscious, voluntary muscle contractions, and a "quick-twitch" circuit which controls subconscious, involuntary muscle contractions. Information enters the brain through the thalamus, and is simultaneously sent to the neocortex — the slow-twitch circuit, and the amygdala — the quick-twitch circuit.

When new sensory information enters the brain, your amygdala scans your past experiences for memories with similar characteristics. It is associative in nature, and in fact, works more quickly than the neocortex.

According to Daniel Goleman, [the quick-twitch route] "has a vast advantage in brain time, which is reckoned in thousandths of a second. The amygdala in a rat can begin a response to a perception in as little as twelve milliseconds — twelve thousandths of a second. The route from thalamus to neocortex to amygdala takes about twice as long. Similar measurements have yet to be made in the human brain, but the rough ratio would likely hold." Daniel Goleman, *Emotional Intelligence: Why it Can Matter More Than IQ* 23 (2006).

If the amygdala finds a match with a painful past experience, it triggers a reaction. This involuntary stress response has the capacity to overwhelm your conscious thinking — your rationality. You have most likely experienced this override if you've ever been so mad you can't think straight.

Sometimes, you experience a tug-of-war between these two circuits, with your amygdala telling your face to do one thing, and your neocortex telling it to do another. The result is a microexpression.

We know from Ekman, "Not all of the muscles that produce facial expression are equally easy to control. Some muscles are more reliable than others. *Reliable* muscles are not available for use in false expressions; the liar cannot gain access to them. And, the liar has a difficult time concealing their action when trying to hide a felt emotion, as they are not readily inhibited or squelched." Paul Ekman, *Telling Lies* 132 (2009).

Uses in Litigation

At its most fundamental level, microexpression analysis is a trial skill. Scientists agree that a significant portion — up to 93% — of all communication is non-verbal. See, e.g., Albert Mehrabian & Morton Wiener, 6 *Journal of Personality and Social Psychology*, "Decoding Inconsistent Communications" 109-114 (1967); Albert

Mehrabian & Susan R. Ferris, 31 *Journal of Consulting Psychology*, "Inference of Attitudes from Nonverbal Communication in Two Channels" 248-252 (1967). If you are only gleaning 7% of the information your witnesses are giving you, you may be missing out on a lot of valuable information.

Microexpression detection for witness/client testimony vetting has, until now, been a fairly underused resource. However, opportunities for its successful inclusion offer many possibilities. For example, videotaping a deposition is specifically sanctioned by the Rules of Civil Procedure. Fed. R. Civ. P. 30(b)(3)(a)-(b); N.C. R. Civ. P. 30(b)(4). A trial lawyer videotaping a deposition could consult with a certified microexpressions detection examiner regarding the truthfulness of the testimony.

Microexpression analysis can be particularly useful as a client screening tool. The ability to make more accurate judgments regarding a prospective client's truthfulness can help lawyers better identify dishonest clients before they agree to take on those clients' cases. Not only could effective client screening improve the bottom line of lawyers who take cases on a contingency fee basis, it could also improve the efficiency of the judicial system as a whole by weeding out baseless claims before they are ever brought to court.

Although the admissibility of microexpression testimony has not yet been tested in the Fourth Circuit, microexpression analysis is nonetheless useful for fact-finding. When you're conducting a deposition and discover incongruities, you've found a red flag. This is where you need to dig deeper and ask more questions. Microexpression may also be useful in jury selection and in your observation of a jury during trial.

Concluding Thoughts

So how can you harness these tools in your own practice? You have three options. You can train yourself with microexpression training tools. You can become a Certified FACS Coder, which requires a self-guided course of study over 50 to 100 hours, with an exam at the end of the course. Or you can consult a licensed detection of deception examiner.

Ekman's message to those interested in ferreting out criminal lies is "not to ignore behavioral clues but to be more cautious, more aware of the limitations and the opportunities." Paul Ekman, *Telling Lies* 22 (2009). His words are especially true in our profession, where the ability to detect the truth can make or break a case.

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