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## Nonverbal Cues

Nonverbal cues to deception refer to unique motor behaviors that occur when lying, but are absent or present to a lesser degree when truth-telling. Nonverbal cues also include vocal behaviors separate from the content of the speech, such as vocal pitch. It is thought these cues are connected to underlying the cognitive and emotional demands of deception and so unintentionally reveal a liar's true beliefs. These cues may also, or instead, reflect the strategies that liars employ in an attempt to appear convincing. Whether unwitting or strategic, these behaviors vary depending on characteristics of the situation and of the individual. Consideration will be given to each of these topics, exploring how the cognitive and emotional elements of deception elicit nonverbal cues to their deceit, the individual and situational differences that modulate the cues to deceit and the benefits of using nonverbal cues.

### Mental state of the liar

Initial research into the nonverbal cues of deception was concerned with the notion that liars experience different emotional states to truth-tellers. Despite liars' best efforts, rapid and unintentional manifestations of emotions were thought to be observable in bodily behavior, often referred to as *leakage cues*. These cues are thought to reflect guilt associated with misleading another and anxiety about being caught. The *leakage hierarchy hypothesis* suggests cues associated with these emotions are most evident in the face and less so in the rest of the body. As a result, research into the emotional displays of liars has focused mostly on facial expressions. Paul Ekman, a pioneer of the emotional approach to lie detection, proposed these emotions fleetingly express themselves despite attempts to suppress them, which he has termed *micro-expressions*. Research into their existence has found mixed results, and when micro-expressions have been found they are often reported as being too scant for reliable use in practice. Other emotional displays have been found to be more reliable indicators. For example, liars produce fewer genuine smiles but more feigned smiles.

The *four-factor model* proposes that liars experience not only emotional demands, but also suffer from heavier cognitive demands as well. Deception has been shown to be more cognitively challenging than truth telling: a false reality must be maintained while the ever-present truth competes for expression. The cognitive demands are observed in nonverbal behavior, with researchers finding characteristic signs of cognitive load such as decreased eye blink rates, greater speech hesitations and a longer initial pause before beginning to respond. Recently researchers have taken to focusing more on establishing nonverbal cues to deceit that indicate the heavy processing demands, with less attention given to the nonverbal behaviors indicative of felt emotions.

### Deception in context

There is no simple correspondence between the cognitive and emotional antecedents of deception and its behavioral consequences. In a review of 100 nonverbal cues to deceit, 75% of the behaviors investigated were not related to deception in any way. There is little evidence that any single nonverbal cue, akin to Pinocchio's growing nose, will accurately distinguish deception from truth across a range of individuals and situations. Lies vary dramatically, from outright inventions to subtle concealments, from mundane white lies to highly consequential deceptions, and from lying for self-gain to lying for selfless reasons. The memory demands of

inventing a lie, the emotional impact of highly consequential deceptions and the social implications of lying for self-gain place various demands on the individual. By accounting for the differences in the type of lie told, reliable lie-dependent nonverbal cues can be discovered.

The cognitive demands associated with deception can be greatly minimized by rehearsal. For instance, there is a longer initial response time when lying. This is thought to reflect the processing time needed to either generate the lie or inhibit the truth. However, after rehearsal liars take a shorter time to respond than truth tellers, reflecting the reduction in cognitive demand. Thus police officers conducting street interviews moments after the crime will observe different indicators of deceit than would a police interviewer, who would interview the suspect after they had been given time to prepare their account.

The emotional demands also vary by situation. When lying, people may experience diverse emotions including fear of being caught, guilt associated with misleading another, or even enjoyment from having successfully misled someone. However, there are occasions where lying may be equally as emotional as telling the truth. According to studies where people are asked to keep a record of their lies in their daily life, the majority of deception is relatively inconsequential, as most lies are told to protect another's feelings or to exaggerate one's own accomplishments. These deceptions are not fraught with fear of being spotted or guilt for deceiving. Nonverbal cues to felt emotions may offer little advantage in this situation. In some situations lying can even be emotionally easier than telling the truth. For example, a teenager who deceptively says that he or she was studying at a friend's house might be trivially easy when this is what the teenager's parents already assumed. Thus liars need not experience the anxiety that is predicted to accompany deception.

Equally, truth-tellers may feel more apprehensive than may be expected because of the possibility of not being believed. Studies examining vocal cues of deception have shown that human lie detectors are able to recognize the apprehension of honest speakers, but often misinterpret this information as being deceptive, a phenomenon known as the *Othello error*. Thus context not only influences the emotions experienced when lying, but also when telling the truth. Any interpretation of nonverbal behavior must be done with an understanding of the context in which the behavior was produced.

### **Individual differences**

Clearly, from the above analysis, the context in which the lie is told will influence the availability of nonverbal cues presented. There are also particularities of the person that influence the nonverbal display. The lack of reliable cues is in part thought to be an indication of the skill people have as liars. The *self-presentational perspective* suggests speakers consciously or unconsciously regulate their behaviors to avoid apparently suspicious behaviors. Speakers who produce behaviors violating expectations of what is considered appropriate in the situation are more likely to be rated as deceptive, regardless of whether they were actually lying or truth-telling.

In addition to withholding suspicious behavior, this perspective claims liars should actively display behaviors in an attempt to appear more honest. When listeners mimic the movements of a speaker they are more easily duped, suggesting the behaviors most perceptible to the lie detector are those tailored to project an honest demeanor. Indeed, it has been suggested that lie detectors perform poorly precisely because the majority of individuals are skilled liars, and only a small percentage of liars give themselves away.

The culture in which the individual was raised also influences nonverbal behavior. Surinamese people make less eye contact than other cultures. Although it is not a reliable indicator of deception, conversational partners may mistakenly link gaze avoidance to dishonesty. Cues that are diagnostic of deception, such as decreased bodily movement, also differ by culture. Some research shows Afro-Americans move more overall than white people. Nonetheless, the differences in nonverbal behavior when people lie and tell the truth appear promisingly stable across cultures. Although Afro-Americans may exhibit more movement, they show a reduction in that movement when they lie, as would people in other cultures.

### **Benefits of seeking nonverbal cues**

Although nonverbal cues to deception are not highly reliable from one lie to another, with the proper controls and a clear specification of the conditions in which deception can occur there are advantages to using nonverbal cues as indicators of deceptive intent.

Nonverbal cues to deceit appear to be similar in the cultures that have so far been explored. Nonverbal cues span not only cultures, but also time. One study found that over a two-year period nonverbal behavior remained consistent while verbal behavior showed no such consistency. There also exist cues that appear to be reliable relatively independent of context. For instance, whether rehearsed or unprepared, liars display an overall reduction in their bodily movement. Reduced bodily movement shows up in many studies using a range of lies. That is, there are cues to deceit that are diagnostic and potentially generalize across the various lies people tell.

Because truth-tellers tend to believe 'the truth will out', they typically do not regulate their outward appearance. When people lie it is thought they strategically control their movements in an attempt to minimize any cues. Ironically, this strategy gives liars away precisely because truth-tellers do not usually engage in such nonverbal self-control.

Although liars may strategically attempt to suppress cues to deceit, the interviewer can actively elicit them. One method requests interviewees to tell their stories backwards. Deceivers find this difficult because the act of generating a false story depletes cognitive resources leaving little cognitive capacity available to deal with reordering their tale. This has been shown to increase the nonverbal cues to deceit that are associated with cognitive effort.

Nonverbal cues also offer a direct benefit to the lie detector. The use of nonverbal cues is less cognitively demanding than processing verbal content. As such, this can free cognitive resources and aid a police interviewer, for example, in developing more effective questions for further probing as well as keeping in mind the facts about the case at hand. There may also be situations where verbal communication is not possible, such as at an international airport, where nonverbal behavior may be the sole source of information: security officials need to decide who to search at customs and can only make this judgment from visual behavior. Bearing in mind the strategies liars use and the contextual and individual influences on behavior would serve our security official well.

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See Also: Mental Effort in Lying; Cognitive Load; Emotions; Deception Detection Accuracy; Lies, Types of; Lying, as ability or skill; Meta-Analysis; Leakage; Micro-facial Expressions; Motivational Impairment Effect; Othello Effect.

### **Further Readings**

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