

authorities. Nixon released several private recordings of his conversations with his counsel, John Dean. The tapes revealed the Watergate strategy, a plot to cover-up the break-in, and information about how Nixon's break-in crew was paid with "hush" money to keep quiet about the plan. The most damaging footage for Nixon, called the Smoking Gun Tape, was recorded shortly after the DNC facility break-in. It exposed Nixon's plan to cover-up the DNC intrusions and block an investigation of the raid. The president's lawyers confirmed Nixon's untruthfulness by finding that the Smoking Gun tape "proved that the president had lied to the nation, to his closest aides, and to his own lawyers—for more than two years."

Intense pressure and scrutiny forced President Nixon to resign from office on August 9, 1974, after learning there were enough votes in the House of Representatives to impeach him. Nixon strategically never admitted to lying. However, in hindsight it can be seen that his repudiation of personal involvement was false. The president deceived Americans trust and confidence that a political leader would not put his own personal and political gain ahead of his public duties. In sum, the combination of recorded evidence outlining the Republican plots against the DNC, and testimonies from the indicted burglars, provided enough evidence to conclude that Nixon's denials were fabricated.

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**See Also:** Central Intelligence Agency, U.S.; Conspiracies; Cooperation; Government, Decline of Public Trust in; Government Propaganda; Lying, Intentionality of; Lying as Exercise of Power; News Media: Print; Paltering; Spin, Political; Watergate; White House Press Secretaries.

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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 the underlying 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 emotional and cognitive elements of deception elicit nonverbal cues to their deceit, the situational and individual 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 than truth-tellers. Despite liars' best efforts, 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 that cues associated with these emotions are more likely to be expressed through bodily channels that are not as perceptually salient to a communication partner and thus not as closely monitored by the liar. As a result, leakage should be most evident in the movements of the legs and feet, followed by the hands, and less so in the more visible and practiced movements of the face. A critical

exception, according to Paul Ekman, a pioneer of the emotional approach to lie detection, are the fleeting and nearly indistinguishable emotional expressions that occur on the face while one attempts to suppress true responses. Commonly referred to as microexpressions, the evidence for their existence has been mixed, and even when isolated, 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 tend to produce fewer genuine smiles than truth-tellers but attempt to compensate with feigned smiles.

Extending the emotional approach, the four-factor model proposes that liars must also contend with unique cognitive demands (along with greater overall arousal and the overcontrol of behavior). In many cases, 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. Thus, when cognitive demands are present during deception, characteristic signs of cognitive load are revealed across a range of nonverbal behaviors, including decreased eye blink rates, greater speech hesitations, and a longer initial pause before beginning to respond. Recently, researchers have focused more sharply on establishing nonverbal cues to deceit that tap into the heavy processing demands, with less attention given to the nonverbal behaviors indicative of felt emotions. However, it is noteworthy that there is some controversy around the cognitive load approach, with some researchers arguing that the cues to deception should be expected to decrease when a person is mentally taxed.

### 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 percent 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 interviews 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 when lying may be as emotional as telling the truth. According to studies in which 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 with feelings of 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 telling a lie that is 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.

### Interactions With Individual Differences

The context in which lies are told will influence the availability of nonverbal cues presented. There are also particularities of the person that influence the nonverbal display, such as working memory capacity and emotional control. Differences in motivation and confidence can also alter the naturalness of behavior. People who are too eager to appear believable will often exhibit actions that are overly deliberate, thereby producing behaviors that violate expectations of what is considered appropriate in a given situation. Conversely, those who are more confident and well practiced in their ability to lie do so with greater success.

There is mounting evidence that the latter is more common in everyday types of deception, where deception mostly goes undetected and reliable nonverbal cues for identifying deception are few. The self-presentational perspective supports this notion, arguing that liars are quite adept at regulating their behaviors by avoiding apparently suspicious behaviors and creating an impression of honesty. For example, deceivers who mimic the movements of their conversational partner are more readily believed, suggesting a simple behavioral adaptation that is tailored to project an honest demeanor.

There is of course an alternative explanation to low detection rates that has less to do with the individual skills possessed by liars but more with the inability of lie detectors in detecting deception. In a comprehensive study that spanned 75 different countries, people reported that the most revealing nonverbal cue in detecting deception is gaze aversion, a cue that has received little or no empirical support. However, followup research has shown that lie detectors rarely rely on these wrong beliefs when attempting to detect deception in real-time. Instead they are more sensitive to open-ended categories of others' perceived

incompetence and ambivalence. Thus, the self-presentational skills of individual liars, in more or less demanding situations, seem to best explain low detection rates.

The culture in which the individual was raised also influences their nonverbal behavior. Surinamese people make less eye contact than people in other cultures. Although it is not a reliable indicator of deception, conversational partners commonly link gaze avoidance to dishonesty. Cues that are more diagnostic of deception, such as decreased bodily movement, also differ by culture. Some research shows that African 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 African 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 are 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 come 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 backward. 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 in which 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 security officials well.

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**See Also:** Cognitive Load; Crying; Deception Detection Accuracy; Duchenne Smile; Emotions; Leakage; Lies, Types of; Lying as Ability or Skill; Mental Effort in Lying; Meta-Analysis; Microfacial Expressions; Motivation Impairment Effect; Othello Effect.

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## Normandy, Allied Invasion of

Allied forces invaded the beaches at Normandy, France, on June 6, 1944, surprising German commanders who anticipated landings at the Pas-de-Calais, France, the narrowest point of the English Channel. The success of the invasion followed years of British and American planning for Operation Overlord and two lesser-known cover efforts code-named Operation Bodyguard and Operation Fortitude.

In 1943, planners at the Supreme Headquarters Allied Expeditionary Force (SHAEF) realized that the German command would anticipate and plan for an invasion of Europe, so the Allies needed to influence German planning. The London Controlling Section commanded by Colonel John Bevan and the chief of staff of SHAEF, General Frederick Morgan, devised a deceptive invasion plan: Operation Fortitude, which shadowed the real Allied invasion plan. Allied planners sought to make the German command believe that the attack at Normandy was a diversion and the attack would come elsewhere. This would tie up large numbers of German forces and allow the Allied landings to get a firm hold on the beachhead before the Germans realized their mistake.

Operation Bodyguard was designed to tie up German forces in four separate areas so they couldn't group in one place. Allied diversions led Germans to believe that invasions would come in Scandinavia, the Pas-de-Calais, the eastern Mediterranean, and the south of France in the late summer and that the Allied priority was on air offensives.

Operation Fortitude South at Pas-de-Calais was created to appear as the real location of the