

Juror Assessment of Veracity, Deception, and Credibility

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"[T]he trial judge has now had an opportunity to observe the demeanor of witness A, and has noticed that he fidgets when answering critical questions, his eyes shift from the floor to the ceiling, and he manifests all other indicia traditionally attributed to perjurers."

I. INTRODUCTION

Supreme Court Justice William Rehnquist's comments in the above cited opinion reveal a common assumption in the legal community that visual cues of testifying witnesses are the most trustworthy indicators of veracity and deception. This misconception underlies the problem with the American legal system's suggestion that jurors look to "conduct" and "demeanor" of witnesses to determine the veracity of trial testimony. Jurors are instructed by most judges to use demeanor evidence to decide important questions of witness credibility. Although jurors use both a witness's demeanor and testimony as indicators of a witness' veracity, jurors are apt to avoid reliance on the witness's actual testimony and instead depend on the witness's demeanor. Moreover, when faced with conflicting testimony, jurors use demeanor evidence to attempt to determine which testimony is more reliable. Studies examined in this paper show that when jurors use demeanor evidence to determine credibility, they largely depend on nonverbal signals, or cues, that have little likelihood of revealing the truth. Because a strong basis of the American legal system is grounded the fact-finder's determination of the truth, it is important for the legal community to understand how jurors assess veracity in situations where they must decide what story to believe and, most importantly, to examine whether the process used to make such an assessment is valid.

It is argued in this paper that jurors tend to have the misconception that the word "demeanor" means a witness' body and facial expressions and not the witness' vocal characteristics, and, as such, jurors depend on the least-helpful cues to determine whether a person is telling the truth or lying. It is also argued that it is vocal cues that jurors do not significantly rely on that are the most accurate indicators of credibility and veracity. It is further argued that jurors can be more effectively guided by judicial instructions or juror handbooks that

effectively define demeanor evidence to assist them in their examination of such evidence to ultimately find the truth.

Although demeanor evidence could consist of both vocal and visual cues revealed by a witness, psychological studies show that receivers of messages mainly depend on a speaker's visual cues to determine veracity and credibility. Such psychological studies show a problem of note for the legal field. These studies indicate that jurors are determining veracity by focusing on nonverbal cues that are not the best indicators of veracity. It has been argued that visual cues are the least useful indicators of deception, while vocal and content cues are the most accurate clues to determine actual deception.

The problem with juror interpretation of the term "demeanor" results, in part, because the lay definition of "demeanor" focuses on behavior and body language and is significantly less specific than the definition of "demeanor" used as a term of art in the law. In addition, most judges do not provide the legal definition of demeanor to juries when instructing them that they may use such evidence in assessing witness credibility. The legal system requires demeanor evidence in its mandate of live testimony, the hearsay rule, and the right of confrontation; however, juror use of demeanor evidence is generally incorrect because jurors tend to, as naturally expected, rely on common sense and personal experience to determine the weight of certain testimony. Such dependence "may add little to an observer's ability to detect [actual] deception." Furthermore, as it has been argued elsewhere, "[t]he cues observers rely on to make judgments of veracity are, for the most part, unrelated to actual honesty and deceit." This inconsistency between the mandate of the legal system to require the use of demeanor evidence and juror inability to use that evidence creates a system where jurors are essentially being focused on using faulty data to determine witness veracity and credibility in trials.

This paper has many purposes: (1) explore the dilemma of veracity and credibility assessment in the modern legal system; (2) discover the cues jurors depend on when assessing credibility and perceiving deceptive communication; (3) discuss which cues actually correlate with deceptive communication; (4) explicate the significant differences between perceived and actual cues to deception; (5) discuss the problems posed when demeanor evidence is used in the search for truth; and, (6) provide insights into how to solve the problems identified in this paper.

Juror Inability to Effectively Use Demeanor Evidence

Lawyers attempt to reveal a witness's credibility, or lack thereof, with the following: substantive impeachment (contradiction, inconsistency, incoherence), motivational impeachment (bias and character), and behavioral impeachment (demeanor). Jurors use demeanor evidence to determine whether a witness is engaged in deceitful or truthful communication to ultimately determine the credibility of the witness and find the real trial story. Demeanor evidence is comprised of three nonverbal cues: face, body, and voice. However, most people do not, and can not, use this evidence to accurately detect deception. Deception is an attempt to influence beliefs, attitudes, and behaviors of others by means of deliberate message distortion. Thus, deception is more a means than an end.

Deception studies began with the work of Ekman and Friesen; Knapp, Hart, and Dennis; Hocking, Bauchner, Kaminski, and Miller; and Zuckerman, DeFrank, Hall, Larrance, and Rosenthal. What these studies concluded is that a person's dependence on what they think reveals deception actually lessens their ability to accurately detect deception. What this means for the legal field is that a deceptive communicator could effectively use nonverbal cues to mislead listeners into believing she is telling the truth, while an honest communicator could be telling the truth while nervously hesitating and fidgeting in a way that causes the jury to think she is being deceptive. Certain cues (nonverbal signals) determine actual speaker deception, and the cues observers use in interpreting deception often do not correlate with the cues to actual deception. Essentially, "humans are relatively poor lie detectors."

People are Poor Lie Detectors

Most people cannot do better than chance in determining whether someone is lying. Very few subjects, in studies testing ability to detect deception, have achieved higher than a 60% accuracy rate, when 50% accuracy would represent the level of mere chance. If facial cues are absent when people attempt to detect deception, detection accuracy is higher than when facial cues are present. As Wellborn stated in 1991:

If ordinary people in fact possess the capacity to detect falsehood or error on the part of others by observing their nonverbal behavior, then it should be possible, indeed easy, to demonstrate such a capacity under controlled conditions. Over the past twenty-five years, a large number of experiments involving thousands of subjects have searched for this capacity. With remarkable consistency, the experiments have shown that it simply does

not exist. To the extent that people can detect lying or erroneous beliefs in another, they do so primarily by paying close attention to the content of what the other says, not by observing facial expression, posture, tone of voice, or other nonverbal behavior.

Testimony content is important when assessing witness credibility; however, it is not as helpful to jurors when in assessing conflicting testimony. In assessing witness credibility when presented with conflicting testimony, jurors analogize the testimony to their lives, apply personal experiences, measure testimony by what they have read in books or seen on television, apply what they have learned from teachers and acquaintances, and focus on witness demeanor in making these comparisons. Although jurors use life experiences in making judgments of credibility, judgments of credibility from common cultural cues are of little value in assessing the actual truth.

Despite the ineptitude of jurors in accurately assessing witness truthfulness, the legal field presumes that jurors are competent to determine whether a person is truthful. "It is well-established within current law that, as a general rule, the common sense of the jury -- along with the traditional assistance provided by cross-examination, legal argument and the opportunity to observe the witness' demeanor -- provides sufficient guidance for credibility evaluations." As one author stated:

There are two possible justifications for the judicial system's reliance on the jurors' common sense to determine credibility. First, on a practical level, jurors, as mature citizens, can be expected to have made many credibility assessments in the contexts of their jobs, social relationships, formal education and other aspects of everyday life. Second, on a normative level, reliance on common sense enhances the representation-reinforcement goal of the jury system. Because the jurors represent a cross-section of the community, their common sense is representative of the morals, values and experience of the community. Thus, the use of common sense ensures democratic verdicts and enhances the perceived and actual fairness of the judicial system.

People generally use what they know about common cultural cues, life experiences, and common sense to determine someone's veracity. However, this standard is "empirically incorrect," since there is little accuracy in a juror's assessment of a witnesses veracity.

The common law's dependence on common sense and experience for determining credibility has been the subject of widespread criticism in the psychological literature,

particularly because many people who make up juries are not professionally trained or trained by the court to effectively detect deception. Juror judgment of veracity, deception, and ultimately credibility mainly comes from years of attempting to determine whether someone is lying or telling the truth, from stereotypes about liars learned from interpersonal relationships, and from media influences. It is rare that people receive post-test confirmation of their assumptions or professional debriefings about deceptive communication experiences.

Table One lists many characteristics that the research literature has listed as general stimuli people rely on when making assessments of the credibility of testimony presented.

TABLE ONE

General Factors Jurors Depend on to Assess the Credibility of Testimony

voice

vocal characteristics (accent, pitch, rate, volume, dialect)

vocal fluencies (confidence in speaking and flow of words)

vocal nonfluencies (stuttering, use of vocal pauses)

body and face

Appearance of communicator

body movements

facial expressions

nonverbal behaviors of all courtroom participants

attractiveness of the parties

social status

race

gender

clothing

occupation

content

use of language

whether the witness is labeled an expert or lay witness

impact of evidence

believability of statements

confidence in direct eyewitness testimony

areas of testimony conflict between witnesses

evidence

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demonstrative aids

arguments

juror attitudes about the crime

overall testimony content

whether the defendant has been charged with multiple offenses

whether the defendant has a criminal record

consistency of statements

Overall, people use combinations of message content, vocal characteristics, body language, and facial expressions to determine whether someone is lying. Some observers avoid using facial cues as a factor in judging credibility because their common experience tells them to ignore such cues because deceit can be masked and facial expression manipulated. Yet, it is difficult for people to totally disregard facial expressions when assessing credibility. What these implications may mean is that when jurors are presented with conflicting testimony (which causes them to lose focus of testimony content), jurors largely depend on the witness' nonverbal communication to make credibility judgments. However, the legal system's mandate that jurors look to "demeanor" and "manner" of the witnesses tends to focus juror attention more on the witness' body language and less on vocal characteristics. If jurors are interpreting "demeanor" or "manner" of the witness as body language, jurors may be totally disregarding vocal characteristics.

Problems With Increasing Jurors' Abilities To Use Demeanor Evidence

It has been suggested that the legal system needs to assist jurors in correctly assessing credibility. Some critics remark that there is a "tendency to exaggerate the probable effects that nonverbal communications have on the fact-finder, and to ignore that the strength of the evidence actually has the greatest impact on the fact-finder's decision." It has also been argued that jurors need more data to assist them in using the correct cues to determining actual deception, because cues learned from experience are largely incorrect. A few jurisdictions permitted expert psychological witnesses or special jury instructions to help inform jurors to make more accurate decisions when assessing credibility. It is clear that "people are not very accurate in judging when someone is lying, including even professionals [such as police] whose jobs require them to make credibility judgments." Logic begs the conclusion that jurors need more experience in accurately detecting deception.

However, some experiments testing whether training and experience helps subjects accurately detect deception have not proven positive. Zuckerman sought to find out if a naive observer could detect deception. His study proved positive in that detectability of deception was above the chance level for naive observers. Studies have shown that experience at detecting deceit plays little if any role in the accurate detection of deceit. However, these studies did not test whether the subjects had been accurately trained in deception detection. These studies simply used subjects who were professionals known to perform some form of credibility assessments in their employment, such as policemen or psychiatrists. One study found that psychiatrists, federal polygraphers, robbery investigators, and judges were not significantly better at detecting deception than were college students, yet secret service agents were more successful detectors at an accuracy rate of 64%. The poor performance of "experienced" interpreters used in such studies could be the result of improper training of the professionals in how to accurately detect deception. The studies did not explore how, or if, such "professionals" were trained in deception detection. Few studies experimented with jurors in a mock legal setting, and fewer in a legal setting.

People are not given opportunities in everyday life to consistently see if their perceptions of deception are accurate; thus, people merely assume that certain cues are effective determinants of judging deception. These people make up juries. In one study, subjects with little and no experience at detecting deceit did no better than subjects with years of experience at detecting deception, such as federal law enforcement officers. However, this result could be due to the officers not receiving feedback throughout the years to verify their own perceptions as being valid. What this does tell us is that people develop their own theories about cues of deception, largely influenced by external factors, and use these theories to decide when someone is lying. And, persons with experience at detecting lies may have similar theories of cues to deception as do inexperienced detectors (stereotypical cues of deception). What studies have yet to truly test is whether jurors who are taught what cues are effective determinants of deception are better judges of deception than naive jurors.

Perhaps there is no way to assist jurors in accurately detecting true deceit. In one 1984 study, primed subjects were not any more accurate than naive subjects in detecting deception; however, the primed subjects were less confident about their judgments and tended to perceive the people observed as generally more deceptive than did the naive subjects. The "primed"

subjects were essentially just informed that the speaker may be engaged in deceptive communication. Increasing suspiciousness by informing perceivers of the possibility of deception served to destroy the perceivers' confidence in their abilities to discover deception. Despite this study, "empirical studies consistently demonstrate that confidence in one's ability to detect lies is unrelated to the actual accuracy of the statements."

Despite the lack of success in studies testing consistency in detecting deception, providing focused instructions of demeanor evidence that focus on results of the studies mentioned in this article may assist jurors in concentrating on cues that are the strongest determinants of actual deception. Jurors are already aware that they will be listening to potentially deceptive testimony. What the research indicates is that more studies should be conducted in a courtroom environment to determine whether certain instructions to jurors would assist them in accurately detecting deception and assessing overall witness credibility. It is clear that the cues observers now use to presumptively detect deception are largely inadequate for detecting actual deception.

Inaccurate Nonverbal Cues Used To Determine Deception

There are more perceived cues (cues people believe are indicators of truth or deception) that people use to detect deception than there are cues used during actual deception. Cues used by observers to detect deception are "more strongly associated with judgments of deception than with actual deception." Jurors have the duty of determining many factors in a trial, such as *mens rea* and witness credibility based on direct and circumstantial evidence. Jurors look largely to their perceived cues when evaluating circumstantial evidence and when assessing credibility. Table Two lists the cues that people commonly associate with deception (perceived cues).

TABLE TWO

Cues People Perceive are Indicators of DECEPTIVE Communication

vocal cues
speaking nonfluencies ("um's" and "ah's")
slow to respond to questions
slower vocal pace than normal
unusually fast or slow talkers
high vocal pitch
loud volume
intense and unusual vocal behaviors

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planned responses
frequent swallowing
stuttering
body and face (visual cues)
less eye contact
tenseness
nervousness
unnatural gesturing
body stiffness
squinting
avoidance of gaze
decrease in smiling
increase in postural shifts
forced and unnatural smiles
tight faces
scratching of the head
rigid posture
relaxed facial expressions
erratic hand movement
more foot and leg movement
fidgetings
yawns
shifty eyes
air of candor or evasiveness
planned responses

Studies have found that deceit is commonly interpreted as being associated with a large number of active nonverbal cues such as rigid posture, relaxed facial expressions, high vocal pitch, increased hand movement, more foot and leg movement, and nervous body movement, even despite a communicator's attempt to control facial expression during deceit. Subjects who attempted to discover deception stated that they looked for the following cues to see if the person was lying: less eye contact, tenseness, nervousness, slow to respond to questions, gestured unnaturally, swallowed too much, stuttered, exhibited speaking nonfluencies, were too stiff, squinted, smiled unnaturally, had tight faces, and scratched their heads. "All of us know that, in

every-day life, the way a man behaves when he tells a story -- his intonations, his fidgetings or composure, his yawns, the use of his eyes, his air of candor or of evasiveness -- may furnish valuable clues to his reliability. Such clues are by no means impeccable guides, but they are often immensely helpful."

A number of factors can influence juror assessments of credibility, veracity, lying, and persuasiveness: impact of evidence, nonverbal behavior of participants in the courtroom, attractiveness of the parties, evidence, arguments, and juror attitudes about the crime. Speakers who have the appearance of giving planned responses are usually perceived as more deceptive than speakers with more spontaneous responses. "Hedging" (use of vocal qualities and words such as "uh," "um," "well," "I think," "I guess," "kinda," "sort of," and "you know") can also cause a listener to perceive a speaker as less credible.

Pitch and speech rate are also cues used by observers to assess deceptive communication. For example, people perceive a high-pitched voice as a sign that the person is less truthful, less persuasive, and more nervous than a lower pitched voice. People also think that a slower pace makes a person less believable. A study found that a message delivered at the rate of 191 words-per-minute produced more listener agreement with a speaker's views than did the same message delivered at the normal rate of 140 words-per-minute or at a slower rate. Thus, a speaker with a fast rate and low pitch is perceived as having more knowledge, being more trustworthy, and being more competent than slower speakers with high pitches who were perceived as being less truthful and persuasive.

There are various cues used by jurors to perceive *truthful* testimony. Table Three lists the cues people generally associate with truthful communication.

TABLE THREE

Cues People Perceive are Indicators of TRUTHFUL Communication

vocal

faster vocal pace

lower vocal pitch

body and face

close distance

direct body and facial expressions

forward lean

increased eye contact

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pleasant facial features
smiling
nodding
frequent gestures
pleasant facial expressions

Nonverbal cues such as close distance, direct body and facial expressions, forward lean, increased eye contact, smiling, nodding, frequent gestures, pleasant facial expressions, fast speech rate, loud volume, and intense vocal behaviors are perceived by observers as enhancing the persuasiveness of a communicator. In addition, strong fluency, and more intonation are associated with strong persuasiveness.

Problems Associated With Juror Dependence on Their Perceived Cues

Although research consistently cites the deceptive and truthful cues listed in the above section as cues people generally depend on in perceiving credibility, there are other factors that affect juror perception. These additional factors signal that perceived cues to deception may be different, if not drastically different, from the actual cues used during deception. An important factor to add to the equation is that stereotypical cues that are associated with deceit may be the same cues that speakers try hard to control and manipulate to hide detection of their deceit. Since many witnesses are aware that certain cues (such as shifty eyes and bodies) are perceived as deceptive, witnesses often try to avoid using such behaviors in order to appear truthful. Research also shows that other factors affect the perception of witness credibility. If a person is labeled an "expert," such a label can change a juror's interpretations of credibility. For instance, an "expert" who hesitates may be perceived as concentrating, whereas a non-expert witness may be perceived as hedging, a cue often associated with perceived deception. As one author noted,

jurors place undue emphasis on eyewitness testimony, regardless of its accuracy, that they wrongly equate eyewitness confidence with accuracy, that they tend to make credibility decisions based upon social status, speech style, clothing, or occupation, and that, in criminal cases, jurors tend to assume that a defendant is guilty if he has been charged with multiple offenses or has a criminal record.

Jurors also look to witness confidence to determine credibility--a factor that "correlates weakly with veracity and accuracy."

Humans are not good lie detectors. Most perceived cues of deception are not reliable in determining actual deception, and various factors incorporated into a courtroom setting affect perception accuracy. Because there are more perceived cues to deception than there true cues used during deception, the logical conclusion is that people perceive far too many nonverbal cues as being deceptive cues when they are not. People rely on a large number of facial and body cues, easier nonverbal cues to manipulate, when making assessments of deception, while focusing on relatively few vocal characteristics, harder cues to manipulate.

Correlations With Perceived Cues, Legal Perceptions of Perjury, and Actual Cues

There are a few perceived cues (cues people perceive are indicators of deception) that luckily correlate with cues that psychological studies show are actual indicators of true deception (actual cues). Some actual cues also are found to correlate with the legal field's stereotypical associations with perjurers. Nonfluencies, "um's" and "er's," and slow rate of speech are proven as perceived cues that are some of the strongest predictors of actual deception; and speech nonfluencies (in addition to statements of dislike) serve as perceived as well as actual cues to deception. These vocal nonfluencies are also regularly associated in the legal field with perceptions of perjurers. Also, "the hemming and hawing that our culture tends to associate with equivocation and deception does indeed appear to figure prominently in people's judgments about deception, and it also appears to characterize some of the kinds of lies that have been studied by psychologists."

Blumenthal noted that certain cues people use to detect deception correlate with the legal system's expectations for demeanor evidence:

Consistent with popular and legal conjecture, for example one of the strongest correlations was a perceived avoidance of gaze: when speakers avoided others' gaze, observers predicted deception significantly more often than not. Other perceived predictors included decrease in smiling, increase in postural shifts in the visual channel, and all auditory cues except for response length. These perceived predictors correspond to those behaviors accepted by the legal profession as indicative of deception or perjury. These cues that combine perceived, actual, and legal cues are those cues that are stereotypically known to signal deception. A large problem arises, with these cues. Witnesses generally know that these stereotypical cues signal deception; therefore, careful witnesses work to avoid such cues. Some witnesses are good at controlling certain deceptive cues while displaying others that

are associated with veracity. Thus, while some nonverbal indicators of deception seem helpful at first glance, when looking at implications of these correlations between perceived cues, actual cues, and cues associated with perjury, it appears obvious that such information might not be as helpful if witnesses can easily mask these cues. This is the art of deceit. Blumenthal adds:

Sometimes the cues that people should be using ... are cues that they do not even notice. Other cues that might potentially be quite informative may be noticed, but regarded as insignificant and therefore ignored, or -- worse, yet -- used in exactly the wrong ways This less-than-perfect correspondence between cues that really are indicative of deception (actual cues) and cues that are believed to be indicative of deception (perceived cues) has important implications If a completely innocent truth teller happens to engage in behaviors that others perceive as signs of deception ... that person risks being labeled a liar.

Thus, while several types of nonverbal cues are useful in a courtroom environment to make valid judgments of credibility, stereotypical cues associated with perjury and deception may prove ineffective.

Not only can stereotypical cues associated with perjury be masked relatively easily, the legal system's interpretation of "demeanor evidence" and juror interpretations of "demeanor evidence" are generally different. It is this combination of incorrectly perceived cues, easily masked stereotypical cues, and vague instructions for juror use of "demeanor evidence" that rests at the base of the problem of juror inability to accurately detect deception.

As noted earlier in this paper, the legal definition of "demeanor" points toward body, facial, as well as vocal cues; whereas the layperson's definition of demeanor is generally associated primarily with body and facial cues -- those cues that are easiest for the deceptive witness to mask. Such definitional differences mean that jurors are most likely being misled by deceptive witnesses, falsely interpreting honest testimony as dishonest testimony, and misapplying their common experiences that they have not validated for truthfulness. It is clear that jurors should be trained or instructed in some unbiased and nonprejudicial manner to focus more attention on vocal cues in testimony -- the cues that correlate strongly with actual and perceived cues to deception, and are harder to mask. Vocal cues are even more difficult to mask when a witness is placed under strict scrutiny during cross examination. Thus, although jurors use some vocal cues in generally determining credibility, legal statements focusing jurors to use

"demeanor evidence" may tend to center juror attention more on visual cues, causing jurors to be more easily misled.

It is clear from decades of research that there are more perceived cues of deception than there are actual cues to deception. And not all perceived cues correlate with actual cues. A 1986 study by Stiff and Miller correlated stereotypes of deceptive communication with actual deceptive communication. They found four visual nonverbal cues (blinks, smiles, hand gestures, and posture shifts), three verbal nonverbal cues (pauses, response duration, and response latency), and five content cues (statements of other responsibility, statements of mutual responsibility, mutual references, number of words, and general assessments of verbal content) were used by observers to make decisions about veracity. From this study, none of the nonverbal cues and only two of the content cues (number of words and general assessments of verbal content) significantly correlated with actual veracity. In 1993, the authors of this 1986 study reviewed the literature on deception and concluded that deception studies should focus more on verbal and vocal correlates of actual and perceived deception, because visual cues are not reliable indicators of veracity. Most studies show that perceived communication cues focus on body language, whereas, the best predictors of actual deception are vocal cues.

Studies show that content of testimony and vocal cues are perhaps the only perceived cues that actually tend to correlate with actual deception -- that perceived visual cues are largely incorrect. Deception has been detected in certain speech content: less evaluatively extreme descriptions, more neutral descriptions, fewer self-references, more references of others, and more undifferentiated descriptive terms. DePaulo found that perceivers of deception picked up on these "noncommittal" statements and found that such statements were indicators of actual deceptive communication. Yet, the use of third person language (rather than first person language) was perceived as a cue to deception when this cue has not been proven as an accurate indicator of actual deception. In assessing witness credibility, therefore, it would be useful for jurors to continue to focus on content even when presented with conflicting testimony, while using their rather accurate perceptive abilities to detect deception in vocal characteristics. However, jurors are unlikely to use the content of testimony as a primary tool for assessing credibility when faced with conflicting testimony.

Vocal cues, rather than visual cues, are the best perceived cues for detecting deception, because vocal cues correlate well with perceived deception, actual deception, and legal

stereotypes of perjury. Vocal cues are also harder to mask. Thus, if jurors focus more on vocal cues rather than the many visual cues, jurors may tend to be more accurate predictors of actual deception. Jurors can combine their rather accurate perceptions of vocal cues that they already possess with the content of testimony to enhance their abilities at using demeanor evidence, while focusing less on, but not ignoring, the body and face. In addition, jurors can be instructed what cues are actual cues used during deception to assist them in detecting deceit through the use of vocal as well as visual cues.

Nonverbal Cues That Signal Actual Deception

Studies have examined the following content statements, as opposed to nonverbal communication, to determine deception. self-references (the number of times a subject refers to himself or herself during a response), other-references (the number of times a subject refers to others in a response), mutual references (the number of times a subject mutually refers to herself and others during a response), statements of personal responsibility (the number of statements a subject makes in assuming personal responsibility for an event or outcome during a response), statements of other responsibility (the number of statements a subject makes to assign responsibility for an event on another person), statements of mutual responsibility (the number of statements a subject makes to indicate that responsibility for an event or outcome should be shared by herself and another person), factual statements (statements that are verifiable), hypothetical statements (statements referring to a situation or event that has not occurred, but might occur--"If I get the raise"), and opinion statements (statements made by a subject to indicate her own opinion about something). Verbal content is very manipulative; however, crafty cross-examining lawyers have been able to confuse a deceiver's story to the point that deception leaks out within contradicting narratives. Although juror analysis of testimony is extremely helpful in making credibility judgments of truthfulness, when faced with conflicting testimony and determinations of which story is more correct, jurors look to a witness's nonverbal communication (visual and vocal cues).

As to nonverbal communication, most of the deception/veracity studies analyzed the following nonverbal cues: adaptors (the amount of time either hand is moving while touching the body during a response), hand gestures (the amount of time either hand is moving while not touching the body during a response), indirect eye gaze (the amount of time spent not meeting another's eyes during a response), broken eye contact (the number of times eye contact is

established and broken during a response), eye blinks (number of times a person blinks during a response), smile duration (how long a smile lasts), posture shifts (the number of times the trunk of the body shifts during a response), leg/foot movements (number of times the legs and feet move during responses), audible pauses (the number of times a pause is filled with vocal sounds such as "err" or "um"), silent pauses (number of unfilled pauses exist within responses), sentence repairs (the number of times a sentence or phrase is started, interrupted, and then repeated during a response), response latency (the amount of time before a response is given), and response length (the amount of time it takes to answer one question).

Such studies showed that most of the visual cues (body language) people normally associate with lying are actually not present at all when a person lies. "The studies that have been conducted so far do not support the notion that liars have shifty eyes - nor even shifty bodies; neither glances nor shifts in posture occur significantly more often when people are lying compared to when they are telling the truth." Out of all the visual cues examined in studies, less than half of the visual cues were found to be present when a person actually lied. The use of grimaces or deceptive smiles, "furtive glances," shifty gazes, or nervous blinking generally associated with deception are not present when a person actually lies.

Although a few visual cues are helpful to detect actual deception, there are more content and vocal cues that indicate when a speaker is actually lying. For example, studies showed that lies are accompanied by more speech errors, higher vocal pitch, and slower vocal pace. Few studies found that body language was used in a significant, consistent, and observable manner during deception. Research is inconsistent as to whether increases in shrugs were indicators of actual deception. Although pupil dilation increases during deception, such cues are seldom available to jurors. Observable gross motor movements, such as gestures and body shifts, occurred infrequently during actual deception. Ironically, the lack of body movement during actual deception runs counter to people's perceptions that deceivers have shifting bodies when telling lies.

Although studies analyzed a number of different variables, the general conclusions about cues used during actual deception were quite similar. In 1985, Zuckerman and Driver reviewed the literature and produced a list of cues that consistently indicated deceptive communication: blinking (increased number of blinks during a response), adaptors (touching the body during a response), response length (shorter responses correlate with deception more than do longer

responses), speech errors (more errors in the fashioning of coherent sentences), speech hesitations (more hesitations correlate with deception), and voice pitch (higher pitches correlate with deception). Miller and Stiff determined that "[r]oughly 17% of the commonly studied visual cues have been identified as consistent correlates of deception while 50% of the vocal cues have produced positive results."

Table Four provides the correlations found in various studies between several generally perceived cues (factors people often associate with deception) and cues used when a person actually engaged in deception:

TABLE FOUR
Correlations Between Actual and Perceived Deception

vocal

speech nonfluencies ("um's" and "er's")

slow speech rate

"hemming and hawing" (vocal hesitations, stuttering, frequent pauses)

increased vocal hesitations/pauses within responses

shorter response length

higher vocal pitches

response latency

body or face

increased and nervous hand gestures

content

less evaluatively extreme descriptions

more neutral descriptions

fewer self-references

speech errors (more errors in the fashioning of coherent sentences)

more references of others

more undifferentiated descriptive terms

This is generally positive information, which tells us that jurors are at least partially getting it right. Where they are most likely being misled by witnesses is with juror dependence on body language.

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Almost all of the vocal cues (such as more speech errors, more speech hesitations, shorter response length, higher pitch, slow rate of speech) depended on by people when determining deception are present during actual deception. And social science research demonstrates that tone of voice and hesitations in speech patterns are helpful indicators of actual deception, whereas facial and other physical cues merely mislead.

In 1969, Ekman and Friesen categorized communicative actions into three channels: face, body, and voice -- each as differentially controllable. Their study, and the many studies built on their initial work, show that the face is the most controllable channel and easiest to manipulate for deceptive purposes, and the body is less manipulable than the face. However, the voice is the least controllable, and hardest to manipulate for deceptive purposes. Although the face is considered the most easily manipulated channel, it must be noted that this channel does not always hide deception--it is just the channel that is easiest to manipulate for deceptive purposes. Yet, although deceivers can hide deception by manipulating their face, some involuntary expressions of deception occasionally can leak out, despite several conscious efforts to mask their deception (a process known as "leakage"). "Leakage" is a nonverbal act that reveals deception when a witness is otherwise attempting to deceive.

Table Five lists the three communication channels and the benefits and detriments to deception detection associated with each channel.

TABLE FIVE **Control v. Leaking* in Nonverbal Communication Channels**

face most controllable nonverbal channel
easiest characteristic to manipulate
allows communicator to easily mask deception
any leakage* that occurs is so subtle it is rarely observable
body the second most controllable nonverbal channel
communicators can use the body to mask deception
allows communicators to send false cues associated with truthfulness
allows communicators to mask stereotypically deceptive cues
may unconsciously leak out signals of actual deception when lying
voice the least controllable channel
the hardest channel to manipulate

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tends to leak out uncontrollable cues that signal actual deception

** Leaking or Leakage is the unconscious revealing of messages otherwise being concealed by a deceiver.*

The face is a manipulative channel that can mask deceitful communication. And, the body and tone of voice are more leaky channels than the face, so they are more likely to reveal deception than do facial expressions. Although facial expressions can be masked to hide deception, most facial cues signaling deception are so subtle that most casual observers cannot detect them accurately. For example, there are subtle differences in smiles that can indicate when someone is lying or telling the truth. However, muscular activity around the eyes tends to mean that a person is enjoying oneself rather than attempting to deceive. Receivers of messages tend to treat the sender's voice as leakier than the sender's face. Vocal cues may be the best cues for jury members to focus on in the determination of veracity. Actual deception and perceived deception are found in vocal cues and vocal cues have been proven to reveal deception even when a communicator tries hard to hide it.

It is not necessarily helpful for jurors to look to anxiety or stress of a witness to determine whether a person is lying or telling the truth. Signs of anxiety or stress may be a clue in the determination of whether someone is lying, but it may also be a sign that the person is merely under stress of some type other than that associated with lying. The act of deceiving causes physiological arousal. The higher the arousal the less success the person has at deception. Arousal in speakers facilitates the accuracy of detecting actual deception. However, arousal can occur due to a number of stimuli, and "nervous behavior is not necessarily deceptive behavior." Studies have discovered that the arousal level of truthful communicators is lower than for deceptive communicators. One study by deTurck and Miller found that certain nonverbal behaviors are displayed by people who were both deceiving and showing signs of arousal: adaptors, hand gestures, speech errors, pauses, response latency, and message duration. While these cues distinguished deceivers from unaroused truth-tellers, they also distinguished deceivers from aroused truth-tellers.

Highly Motivated Liars Make The Best Deceivers

Naturally, people who are highly motivated to lie tend to be the best deceivers, because they work to have their behaviors run counter to those behaviors people generally associate with lying. However, Zuckerman and Driver concluded after various studies that deceivers who are

highly motivated to lie display fewer visual cues for the observer to detect deception than do deceivers with low motivation. Although deceivers who are highly motivated to lie may use tricks to make jurors believe they are telling the truth, the vocal cues exhibited by highly motivated liars can give the highly motivated deceivers away, because vocal cues correlate with some of the perceived cues and most of the actual cues to deception.

Highly motivated deceivers use significantly shorter responses to questions, slower speech rates, higher voice pitch, fewer head movements, fewer blinks, fewer posture shifts, and less direct eye gaze than low motivation deceivers. It is mainly the visual cues that these highly motivated deceivers use that will confuse people into thinking that their statements are honest, because people tend to perceive that deceivers use more body movements when, in actuality, true deceivers use fewer body movements. Essentially, deceivers make short overgeneralized responses in a high pitch with a slow speech rate -- perhaps deceivers do this because they believe long responses stated quickly could increase the possibility of contradiction and detection.

Empirical Implications For Finders of Fact

Under American law, the witness is presumed to tell the truth and sworn under penalty of perjury to do so. The law assumes various theories: (1) "dishonest people are more likely to lie in any given situation than honest people," (2) "the character trait of veracity/mendacity is detectable by casual observers in the community, and the community consensus is accurately transmitted among acquaintances," and (3) "ordinary people, properly instructed as jurors, will appreciate the distinction between an inference from dishonest character to untruthful testimony and an inference from dishonest character to criminal conduct." The question these assumptions beg is whether jurors are properly instructed to appreciate the distinction between truth and dishonesty.

Nonverbal behavior, including appearance of a witness, will most likely affect a juror's assessment of credibility and veracity. Jurors use their perceptions of the cues they think will best determine a witness' willingness to tell the truth, her sincerity, and her capacity to know the truth (quality of memory and perception). The Seventh Circuit Court of Appeals noted that the determination of witness credibility and demeanor evidence "is best resolved through giving the judge or jury the opportunity to observe the verbal and nonverbal behavior of the witnesses focusing on the subject's reactions and responses to the interrogatories, their facial expressions,

attitudes, tone of voice, eye contact, posture and body movements, rather than looking at the cold pages of depositions. . . ." Variations on this same quotation have been used by courts.

Research shows that when conflicting testimony is presented, jurors often decide who to believe based on witness demeanor, rather than the substance of the testimony. "Demeanor" consists of a variety of cues, with some cues being more helpful in detecting deception than others. "[T]he legal construct of demeanor evidence ignores this hierarchy and actually assigns the greatest weight to the least helpful cues. To some extent this is due to the historical background of both the demeanor evidence premise and the Confrontation Clause of the Sixth Amendment." This hierarchy is also misconstrued by the legal system. Jury instructions tend to focus juror attention on cues presumed helpful (body language) when they are actually misleading. "Indeed, we go to considerable lengths to provide our impaneled jury with exposure to the voice tones, gestures, and expressions that accompany factual renditions. Not only does the rule against hearsay express a preference for live testimony rendered before the watching jurors, but the Constitution's Confrontation Clause enshrines demeanor evidence among the basic protections of the defendant in a criminal case."

The Fifth Circuit Court of Appeals noted the importance of nonverbal communication, particularly body language, as the main method of unmasking witness veracity:

Only through live cross-examination can the fact-finder observe the demeanor of a witness, and assess his credibility. A cold transcript of a deposition is generally no substitute because it cannot unmask the veracity of a testifying witness clad in a costume of deception; it cannot unveil that a seemingly well-groomed witness is coming apart at the seams: 'that he fidgets when answering critical questions, his eyes shift from the floor to the ceiling, and he manifests all other indicia traditionally attributed to perjurers."

Judges also generally believe that the fact finder's process of determining credibility and detecting deception is not merely sufficient but is, moreover, dependable. Uviller conducted a study wherein all of the surveyed district judges replied that credibility was not one of the most perplexing issues in a trial. Thirty percent of the judges thought that liars are easy to recognize, and almost all of the judges concluded that, in criminal cases, the trial process provides jurors with "essential data" necessary to evaluate credibility accurately.

The American legal system relies greatly on the competence of jury members to determine the veracity or dishonesty of witnesses. Members of the legal system think jurors are

getting it right. The system places much confidence in jurors to determine how much weight to give particular testimony. Directing the jury to observe certain aspects of a witness's testimony, such as "demeanor" or "manner or conduct," is misleading. Most, if not all, of the model instructions imply the importance of "appearance", "manner", "conduct", and other words jurors tend to associate with visual cues; yet the instructions do not necessarily guide a juror to notice vocal cues, the most accurate reflection of actual deception.

People cannot effectively determine veracity and detect deceptive information, and guiding jurors to look to "appearance," "demeanor," or "manner" increases the likelihood of the juror's inability to detect actual deception. Fortunately, no case law "suggests that demeanor is a guide to the actual truth of a witness's testimony, that ideal goal of trial, but to the weight that should be accorded to that testimony."

Like juries, lawyers also rely on nonverbal communication in the courtroom. Lawyers rely on numerous nonverbal cues in exercising peremptory challenges, "including facial expression, dress, demeanor, race, gender, responses to voir dire questions, background information obtained through investigation of prospective jurors, and other available data. Sometimes, particularly in political trials or trials of wealthy defendants, a lawyer may use psychological and sociological data to interpret the available information and to predict the voting behavior of prospective jurors."

In a courtroom, proof of veracity is generally not permitted unless a witness is impeached, then the witness may be rehabilitated with proof of honesty and good reputation. A proponent of nonverbal communication as demeanor evidence noted, "The liar's story may seem uncontradicted to one who merely reads it, yet it may be 'contradicted' in the trial court by his manner, his intonations, his grimaces, his gestures, and the like -- all matters which 'cold print does not preserve' and which constitute 'lost evidence' so far as an upper court is concerned. . . ." However, "the well-worn tools of 'common sense and ordinary experience,' which jurors are enjoined to use in deciding how far to believe the witnesses, may be useless as jurors listen to witnesses and contemplate circumstances far from the paths of their own lives." Although one survey found that judges find the fact-finding duty of jurors adequate for detecting deception, "many courts recognize, for example, that the psychological data reliably suggest that jurors assess credibility inaccurately, [but] they remain in doubt as to whether educating the jury about credibility would improve the accuracy of these evaluations and thereby satisfy the helpfulness

requirement." Thus, it may be that the administrators of the legal system and the creators of the laws and rules understand that jurors are not equipped with the necessary knowledge and skills to accurately detect deception, to use demeanor evidence, or even to understand what "demeanor" actually means. However, no one has implemented, or perhaps even seriously considered, a way to rectify the problem.

Perhaps the legal system depends on expert testimony to serve as the solution. Expert testimony is known to add credibility to a party's case and instruct juries. Experts are seen as credible once a foundation is set to hold the witness up as an expert in an area of specialty. Although experts may lend instruction to juries on particular areas outside the scope of the jurors' understanding, it is rare that courts allow experts in the courtroom to instruct jurors on how to effectively detect deception in the testimony they are about to hear in the trial. Even if courts did allow experts to provide such evidence regarding witness demeanor, the jury might still be confused when conflicting testimony regarding the interpretation of demeanor evidence is presented and such testimony could be construed as biasing the jury.

The legal system needs to improve the uniform jury instructions to reflect both the prevalent psychological and communication research on detecting deception and use of demeanor evidence. If anything, the jury handbooks should provide a more useful definition of "demeanor," "manner," or "conduct," while emphasizing the nonverbal and vocalic cues that most accurately reveal deception.

Another problem with the legal fact-finder's methods of detecting deception and assessing credibility is that some witnesses appear honest when lying, and others appear untruthful when being honest. Wellborn noted:

"The credibility of a witness's testimony depends upon more than the witness's honesty. A sincere witness may innocently convey inaccurate information as a result of an error of perception or memory. Therefore, a trier's overall evaluation of a particular witness may include appraising the validity of the witness's beliefs as well as deciding whether the witness intends to tell the truth. Do the appearance and nonverbal behavior of a witness help the trier to judge the accuracy of the witness's beliefs? On this issue as well, substantial experimental evidence suggests that they do not."

Although it would be impossible for jurors to always accurately detect when someone is telling the truth or lying, the system could definitely be improved to help the jury more

effectively use demeanor evidence. The modern method of misguided, or relatively unguided, jury instructions that encourage blanket "common sense" experiences and knowledge, which has been empirically shown to be largely inadequate in actually detecting deception, is unfortunate. What psychological and communication research over a number of decades indicates is that jurors are frequently discounting the truth-tellers in a system that is grounded in the search for truth.

Conclusion

It is disturbing that most people cannot do better than chance in determining whether someone is lying, while the American legal system assumes that jurors are largely correct when making judgments about a witness' veracity. Several years of studies have indicated that jurors could be stronger detectors of deception if they would focus their detection skills on vocal cues and verbal testimony, while downplaying, but not avoiding altogether, their use of visual cues, which can be easily manipulated. However, in order for jurors to reach this goal, they must be informed of the factors that would allow them to best discover truth.

Jurors are provided little if any instruction as to how to determine whether someone is telling the truth or lying. Jurors essentially use the skills for determining veracity and deception that they learned from common cultural behaviors, life experiences, and common sense. The problem posed by such foundations is that most people do not receive post-test confirmation of their assumptions or professional debriefings about deceptive communication experiences. Thus, many people only assume certain cues are characteristic of deception, without knowing whether those assumptions are correct.

Since the legal system is premised on the search for truth, this system needs to assist jurors in their abilities to correlate truthful communication with credible testimony, while correlating deception with less credible testimony. As the system now stands, social science studies indicate that juror misconceptions about visual cues, which make up most of the cues people use to detect deceit, are misleading juror judgments.

Most, if not all, judges do not provide jurors with any definition of demeanor evidence. Such a definition is needed to best guide jurors in correctly assessing truth and deceit in testimony. The legal definition of demeanor points toward vocal, facial, as well as body cues; whereas the layperson's definition of demeanor is generally associated primarily with visual cues -- those cues that are easiest for a witness to manipulate in order to hide deception. A definition

reflecting social science research of actual cues to deception and truthfulness can provide jurors with more instruction than they are now provided to help in their duty to find truth. The legal system can improve the uniform jury instructions to reflect both the prevalent legal, psychological, and communication research on detecting deception, detecting truthful testimony, and using demeanor evidence. With more precise instructions on demeanor evidence, it is likely that jurors' detection of truthful and deceitful communication will exceed the level of mere chance.

More studies by social scientists should be conducted in a courtroom (or mock court) environment using parallel shadow juries to determine what, if any, instructions to jurors would assist them in accurately detecting deception and assessing overall witness credibility. It would even be helpful for social science studies to simply verify that jurors can be properly instructed to appreciate the distinction between truth and dishonesty in modern courtroom environments. It is unlikely that experts can be used to provide jurors with information about demeanor and veracity in an effort to instruct better instruct the jurors. Such information may be seen as more prejudicial than probative. It would be rare for courts to allow experts in the courtroom to instruct jurors on how to effectively detect deception in the testimony they are about to hear. Even if courts did allow experts to provide such evidence regarding witness demeanor, the jury might still be confused if conflicting testimony regarding the interpretation of demeanor evidence is presented.

The solution of who will provide jurors with such instructions may best rest with the trial judges. While research literature on detection of deception, veracity, and credibility looks at the observer's means of detecting deception and truthfulness (such as naive assumptions by citizens in the jury pool), additional attention by social scientists should be given to the assumptions made by judges in bench trials and in jury trials. It is the judges who are largely responsible for preparing instructions for the juries. Perhaps the best solution to preparing jurors in their search for truth is for professional associations to provide training for judges in understanding the detection of veracity and deception. Judges could become better informed about the social science research concerning the cues that show actual deception, and they might become more accurate themselves as factfinders in bench trials, as well as even more competent than they already are in instructing juries.

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Providing training to judges in deceit detection should prove valuable, because judges repeatedly construct juror instructions, and jurors often serve as a juror only once. Thus, the time spent directly teaching all jurors about deception detection might not prove practical. It would be more practical, however, for professional associations to train judges in how to detect deception, what cues are helpful for juries to know prior to trial in assessing testimony, and, drawing on social scientific research, to craft a model jury instruction based on research presented in this paper as a guide for the judges. Finally, it may prove helpful to the legal system if professional associations, such as state and the national bar associations, to investigate and propose a statement about demeanor evidence for juror handbooks that incorporates the concerns and helpful cues presented in this article.