

LAW ENFORCEMENT MANAGEMENT INSTITUTE

NONVERBAL COMMUNICATION IN DETECTION OF DECEPTION

A RESEARCH PAPER  
SUBMITTED IN PARTIAL FULFILLMENT  
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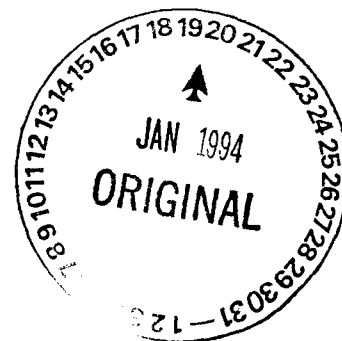
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### STATEMENT OF RESEARCH PURPOSE

The purpose and objective of this research paper is to improve communication knowledge of not only administrators but every officer within a police organization. The ability to detect when someone is being untruthful by any means is strongly beneficial in the communication process.

Management personnel communicate with subordinate staff, potential employees, and officers on a daily basis. Young officers and experienced veterans and investigators alike confront citizens and suspects regularly. The ability to better determine whether someone is being deceitful in most of these circumstances is essential and in some instances lifesaving. Studies have shown that many people display nonverbal communication signals/cues during conversations. The ability to detect and understand these nonverbal communication signals/cues can strongly aid in determining whether an individual is being deceitful.

## REVIEW OF THE LITERATURE

Several authors have written books on interviewing personnel and suspects. These authors contributed, in part, to detecting and identifying ways of determining whether individuals are possibly being deceptive. Some of these authors deal with verbal communication skills as well as nonverbal communication skills. Psychiatrists have also contributed in these writings. Most criminal investigative books and literature address interviewing suspects and depicting ways of identifying possible deception. Experienced investigators have also written books and articles addressing nonverbal communication and its usefulness in reaching conclusions concerning deception.

All of these writers address particular areas of the body and its movements in identifying these nonverbal communication signals/cues. Only a few have addressed the overall picture.

My research will address the entire body movement and its signals/cues in determining when individuals are being deceptive. It will include the study of kinesics, representational systems, paralanguage, and proxemics.

**STATEMENT OF PROPOSED METHODOLOGY**

My research has been conducted in a traditional manner. I have examined the literature of several authors, psychiatrists, and experienced investigators to identify a wide range of possible nonverbal signs given during stressful conversations in detecting possible deception.

I attempted to furnish specific examples to enable the reader to more clearly understand nonverbal communication skills. I further illustrated possible differences in nonverbal communication when persons may be deceitful as well as when they may be telling the truth.

## NONVERBAL COMMUNICATION IN DETECTION OF DECEPTION

Throughout history people have been aware of nonverbal communication. Dating back as far as 900 B.C., researchers found that an observer wrote on papyrus depicting nonverbal signs he observed while the person was lying: "He does not answer questions, or gives evasive answers; he speaks nonsense, rubs the great toe along the ground, and shivers, he rubs the roots of his hair with his fingers. (Goleman 1982)

In 1948, a polygraph examiner, John Reid, observed that some persons react differently when giving truthful answers as opposed to when they provide deceptive ones. He later developed the behavior analysis interview theory. He further concluded through this theory, that observing a person's behavior during an interview could offer some insight into whether that person was telling the truth or being deceptive.

Police officers have to understand that poor communication affects not only the officer but their perspective departments and law enforcement as a whole. It is essential that officers receive specific training in the communication process. They must realize that their ability to relate to the public and others directly affects every action they take. They must also realize that sometimes it is not what they say but how they say it.

Their actions, tone of voice, posture, and general attitude, in addition to what they are saying, send information to the receiver. Often their actions send stronger messages than their actual voice.

It is imperative that all officers be familiar with verbal and nonverbal communication in order for them to communicate effectively. It should not matter whether the officer is communicating with the public or the administrator to his/her staff. The nonverbal signals that the officer displays will either be accepted or rejected. The receiver may conclude whether the officer is interested, concerned, professional, and truthful. When officers have the ability to observe and understand this nonverbal behavior, they should more effectively complete their assigned tasks. This knowledge is extremely helpful when interviewing and interrogating persons on the street. In some circumstances it could even be lifesaving. Investigators can also interpret nonverbal behavior for detecting deception. By analyzing verbal statements and nonverbal behavior the investigator will more readily obtain the truth.

The analysis of nonverbal behavior is beneficial in many ways. Deception, throughout the text of this paper, will have two definitions. First and foremost, it is defined as being untruthful or lying.

However, more significantly, it is also defined as giving false impressions or displaying behavior which often is contradictory to what the communicator is saying.

The four categories of nonverbal behavior that will be discussed are proxemics, paralanguage, kinesics, and representational systems. Proxemics, in nonverbal communication, is the study and understanding of personal and social space. The study of voice tone, pitch, and inflection is paralanguage. Kinesics is the basis for the study of nonverbal behavior. It includes behavior dealing with the head, face, eyes, mouth, body, and lower extremities. Representational systems will deal specifically with eye movements as the brain interprets what you are feeling and about to say at a particular time.

Another important aspect of nonverbal behavior to discuss is cultural considerations. Studies have shown that persons from different parts of the world and of different cultures exhibit different behavioral patterns.

Persons who understand verbal behavior and nonverbal behavior, which is communicated consciously and subconsciously, may communicate more effectively. They have learned how to match certain behavioral patterns to certain situations. They realize that when a person is challenged as to whether he or she is deceptive, their emotional state may turn to anger and hate.



When they are not free to leave, they may conclude that the only way to retaliate is to deceive successfully. When these deceptions are questioned, the person will get tense and nervous which causes their bodies to respond, giving off signals or behaviors suggesting possible deception. These signals or behaviors are associated with deception, and this information assists the communicator in discovering the truth. (Harrison 1986)

These signals or behaviors are intended to give the knowledgeable person an indication that the interviewee is being deceitful by placing the interviewee in a tense and stressful environment. However, we must continue to realize that these signals or behaviors must not be taken alone to determine whether someone is being deceptive. Verbal and nonverbal behavior when properly analyzed and observed is a strong indication as to whether a particular person is truthful, deceptive, concerned, and/or interested.

## PROXEMICS

In order to communicate effectively, everyone needs to understand and comprehend the importance of social and personal space or proxemics. The four categories of ones individual space are: intimate, personal, social, and public. Intimate space is defined as that space from actual contact outward to within six (6) to eighteen (18) inches. Generally, we allow only close personal friends to enter this particular space. From eighteen (18) inches outward to approximately forty-five (45) inches is considered your personal space. This space is regarded as good for conducting business with professionals alike making them feel relaxed and comfortable. Social space is from forty-five (45) inches to twelve (12) feet. This space is allowed for social contacts and informal business communication. From twelve (12) feet outward is regarded as public space. It is important to understand these ranges of spaces because when persons tend to invade a space that you do not accept you tend to become defensive, nervous, and have a sense of being overcrowded.

An invasion of an individual's personal space produces anxiety, and most people find it increasingly difficult to lie when they feel crowded. Therefore, police officers who adeptly manipulate spatial relations when conducting interviews or interrogations will most likely enjoy greater success in ferreting out the truth. (Pritchett 1993)

Some authorities suggest that for interviewers to be successful they should create a level of anxiety and stress by beginning the interview at a safe distance and discussing general information. The interviewer should then move closer into that protected space area during questioning and then again move out. This continued movement throughout the interview generally has a tendency to make some persons feel cooperative in responding to specific questions.

If one accepts the above concept of proxemics, it can be extremely important when setting up for an interview or an interrogation. The interview room's chairs should be properly positioned close together to provide the officer with a full view of the suspect while invading that person's private space. The room should be free of all distractions. The officer should pay close attention to the person while observing his or her reactions, motions, and body movements. The officer should sit close to the subject and carry out a conversation not related to the investigation or the subject matter to get truthful responses while observing his or her face, eyes, hands, arms, legs, and feet. Any questions relating to background information may be used to attempt to get truthful responses.

The officer with experience in nonverbal communication or body language is familiar with movements of the body in conjunction with stress which may be a sign that the person is being deceitful. When a person is challenged as to whether he or she is lying, their emotional state turns to anger and hate. They are not free to leave and they know that the only way to retaliate is to lie successfully. When these lies or inconsistencies are questioned, the interviewed person will get tense and nervous which causes their bodies to respond, giving off or showing signs and signals. These signs and signals are associated with deception, and this information assists the investigator in discovering the truth. (Harrison 1986)

These signs or cues are intended to give the officer knowledge of when a person is being deceptive by placing that person in a tense and stressful environment. However, these cues are not intended to be used alone to determine deception.

## PARALANGUAGE

An individual sends messages not only through language and words but also by tone of voice, pitch, and inflection. (Pritchett 1993)

This involves understanding the importance of how someone says something more than what the subject has actually said -- in other words, examining how the person speaks in regards to tone, pitch, and emphasis and not through language. Emotions can be expressed in paralanguage as well as in nonverbal communication. Variations in paralanguage if analyzed correctly can indicate deception.

Studies have shown that active emotions, such as anger and fear, can be characterized by rapid speech, loud volume, and high pitch. Sadness or depression can be characterized by a slower rate of speech, lower pitch, and lower volume which is conducive to passive emotions. Grief can be characterized as speech that is greatly interrupted by pause time while anxiety creates hindrance of speech. A deceptive person will often times be less fluent and stutter more frequently. Their responses may become broken or hesitant and contain more fillers. During deception the person becomes stressed and nervous. Their voice becomes higher in pitch with longer hesitation and sometimes a slower rate of speech filled with breakers which may be characterized as being deceitful. Their responses will not be readily

volunteered.

### KINESICS

The study of nonverbal behavior is through kinesics. Over the years scientists have learned that facial expressions, gestures, posture, and other body movements transmit messages that either reinforce or contradict the spoken message. The directions in which a person gestures can sometimes determine if he/she is being truthful. Deceptive persons will tend to gesture toward themselves while truthful persons will gesture away from themselves or their bodies. Nonverbal behavior further communicates information which can determine the communicator's personality and further consolidates the ongoing communication process. Research has further shown that nonverbal behavior expresses emotion.

The theory of kinesics is the process of observing and evaluating nonverbal behavior which is exhibited or not exhibited by certain body movements. In order to explain these nonverbal behaviors of the body, we must first dissect the body into specific sections and explain in detail, what behaviors can be associated with truthfulness and deception. The specific sections of the body that need to be discussed are the face, forehead, head/neck, mouth, eyes, the body, and the lower extremities.

## THE FACE

The face includes the voice, forehead, eyes, mouth, lips, head, and facial muscles that show signs of stress, nervousness, and tension that can be associated with deception. Experts have concurred that the face alone is the least helpful in the interpretation of deception because it is the easiest to control. Expressions of the face are sometimes difficult to read because people have learned since childhood how to control their expressions. Furthermore, over a period of time, expressions become automatic and misleading. The face is capable of showing more than one emotion at a time. It can show happiness in the mouth, anger in the eyes, and a surprise in the eyebrows and forehead all at the same time. The face conveys emotion while the body conveys the intensity of motion. (Evans 1990)

When facial expressions are spontaneous, muscle movements tend to be about the same on both sides of the face; but when muscle movements are deliberate, such as when a subject is deceitful, the muscles on the left side of the face move more than those on the right. (Aubry and Caputo 1980)

## THE FOREHEAD

An experienced officer will frequently notice the skin color of the person's head, face, and neck. It tends to become paler or redder during periods of deception.

The increase in the normal flow of perspiration is an indication of heightened nervousness and tension produced by the increased activity of normal body functions. The most noticeable locations are between the eyes and on the upper lip where the perspiration will first appear and become noticeable on the forehead, where perspiration will appear in little beads of moisture just below the hairline, the palms of the hands which exude perspiration, and in the area of the armpits. (Aubry and Caputo 1980)

A person's eyebrows should also be observed. If they appear raised this could be a sign of surprise or that the person is being truthful. Confusion can normally be detected if one of the eyebrows appear to be raised higher than the other. If they are squeezed together, as in frowning, the person may be confused, concerned, worried, or possibly angry.

### THE HEAD AND NECK

The position of the head can give the interviewer insight on how comfortable and cooperative the person will be. If the head is tilted, the person is usually being truthful, cooperative, and/or interested. If the chin is up and the head forward with no tilt, the person may become, if not already, unyielding, aggressive, and/or angry. If the person hangs his head toward his chest, he is exhibiting signs of distress, boredom, or possibly lying.



This is also a sign that the person is at a point where he/she is about to give up or confess.

The neck may become paler or redder in color when a person is being deceitful. The veins will pulsate more as the person's blood pressure rises because of stress or anxiety. The Adam's apple will also tend to move erratically. A person who is being truthful will usually nod or shake their head more frequently. A deceptive person's head movement will usually be steady with less movement than that of a truthful person.

#### THE MOUTH

A person who displays a happy, smiling face with harsh angry words is one example of how the interpretation of the face should be taken in context with other body signals to give more accurate readings of deception. Smiling, in itself, is one of the most misleading nonverbal signs. Persons who are good at being deceitful know that smiling can cover up your true emotions and most often any lie. Persons who are deceptive will oftentimes fake a cough, sneeze, or clear their throat. A liar might be careful about how he/she phrases a lie, and may even tend to smile, but he/she has trouble in disguising an angry voice.

(Goleman 1992)

A person who exhibits a dry mouth and constant licking of the lips is usually extremely nervous and tense. They may also chew on their bottom lip. Other signs of nonverbal signs will oftentimes be readily visible. All of these signs and signals could be associated with deception.

### THE EYES

Looking someone directly in the eye is comparable to looking in that person's soul. Statistics have shown that ninety (90) percent of all facial information comes from expressions of the eyes. Persons who are deceptive tend to look away breaking eye contact, feeling that guilt or deception can be seen. Normal eye contact is generally thirty (30) to sixty (60) percent of the time; however, women generally keep longer eye contact than men. A truthful person's eyes will be open wider displaying more of the white portion and will be more attentive to what is being discussed. Deceitful persons break eye contact often. They may exhibit a distant stare and the white portions of the eyes will be less visible.

When a person is deceitful, the eyes tend to blink more rapidly than normal. Under close observation the eyelids will tend to quiver. The eyes may also appear to be more widely open. The person will tend to have less direct eye contact.

Direction of eye movements can also be a sign of deception. They move differently when you are trying to remember than when you are trying to create or lie.

(Ditzler 1988)

Eyes tend to look off to the right when you are creating or lying and to the left when you are remembering or telling the truth. This along with the eyes that never tend to look directly at you or the eyes that stare off into space, can easily be detected as deception. We have all experienced this in our early life or with our own children.

There are three (3) representational systems of perception in dealing with someone's eyes. The three (3) systems of perception are visual, auditory, and kinesthetics or feelers. This concept is somewhat complex and differs from some of the above mentioned eye signals. In order to properly identify and evaluate these eye systems, this topic will be completely discussed as a separate identifiable deception technique.

### THE BODY

The body, which includes the hands, arms, fingers, and body movement, is considered the best source of interpreting deception because it is the most uncontrollable. A confident assured person uses his hands comfortably to emphasize words and avoids touching the face or head,

gestures that betray uncertainty. (Evans 1990)

Perspiration quite frequently occurs and is detected on the person's hands, sometimes even prior to an interview. Shake the subject's hand when you first greet him/her. He/she will believe that you are being friendly when in fact you are trying to interpret one of their nonverbal signs.

A person's hands may be cool, clammy, or moist in a stressful situation. They will have erratic hand movements to the face, head, hair, or other parts of the body displaying a nervous state. They will pick up and fumble with items in front of them or within reaching distance. They will also pick at their clothing and other objects on their bodies. Tapping of the fingers, running the fingers through the hair, hands covering the mouth or supporting the chin could be regarded as some deceitful reactions.

Body posture should also be taken into consideration. A truthful person will sit upright and comfortable. They will lean forward with interest. They are relaxed and casual but may exhibit some nervousness. They will make smooth posture alignments without any type of pattern. Deceptive persons tend to sit slumped in their chair, have erratic patternistic posture changes, and cannot sit still. Their elbows will be close to their sides with their hands folded on their lap. They will unconsciously retreat from a threatening position.

If the arms are crossed across the chest with the elbows tucked to the sides of the body, they are showing signs of defense which may be associated with deception. Usually a person who is being truthful will be relaxed sitting upright with their elbows away from the body. Deception research indicates that the self-manipulation increases when deception occurs. (Harrison 1986)

Excessive perspiration from the armpits when the room is cool can be associated with deception. When the subject places his or her head down with their hands resting in place, this may be a good indicator that the person is about to concede and tell the truth. A person that is under stress tends to become restless and will shift in their seat on a more regular basis than of a truthful person will. When a person is deceptive, they may also tend to lean forward or have their shoulders slumped.

There are numerous other body signals that a deceitful person may display. If the person is calm and in a relaxed state, then he/she could probably be telling the truth. However, if the person is tense, nervous, or displaying movements that he/she did not exhibit when they were being questioned on a subject not relating to the criminal case, then he/she is more than likely showing signs of deception.

### THE LOWER EXTREMITIES

The lower extremities, which contains the legs and feet, can be one of the least recognized by the officer in identifying deception. This will especially occur when the investigator interviews or interrogates a person at their desk where he/she cannot fully observe the person. When the experienced criminal or streetwise person is able to control all other areas of the body, they will normally forget about their legs and feet. Nervous twitching of the legs and of the feet frequently occur when the person is being deceitful. This is one of the first motions you may observe; however, you must be in a position to observe it.

When a seated subject is well aware that he is being monitored and may be attempting control, the movement of the feet and legs may well disclose pertinent information to the investigator. (McKinnon 1982)

If the person crosses his/her legs he/she may be displaying a defensive position towards your questioning. This could be gender related, for women naturally tend to cross their legs. Constant swinging of a crossed leg or foot is associated with nervousness and stress. Nervous wiggling of the toes and/or feet is another indicator that the subject maybe being deceitful.

A person could be showing indications of deception if he/she moves or places his/her feet under their chair. However, if he/she moves their feet forward or has one foot tucked under the other then he/she is probably being truthful. (Evans 1990)

## REPRESENTATIONAL SYSTEMS

Representational systems are the way you perceive and code the memories you bring back from your perceptions through one of the five systems. The five systems dealing with the entire body are: visuals, auditories, kinesthetics, olfactories, and gustatories. The most important part of our system is that we tend to trust one of the systems more than the others and will tend to use that particular system the most in our everyday lives. The communication process generally involves more visual, auditory, or kinesthetic information than gustatory or olfactory. (Hess 1993)

The world we live in is structured differently by every one of us. Observations and insights into this process can be gained by watching the different ways our eyes move as we perceive and remember. Deviations from these observations reflect stress and nervousness which can be associated with deception.

### VISUALS

When persons are in situations or surroundings where they tend to use their eyes instead of their ears or feelings, they are in the visual mode of perception. Visual



persons tend to select pictures from memory when they are trying to interpret what is going on around them. Visual persons' eyes will look upward usually to the right or left at forty-five (45) degree angles. They will sometimes defocus straight ahead. Visual persons become irritable when others stare at them and don't permit them to look upward or defocus. A use of visual words is regularly used by visual perceiving persons. They tend to use statements such as, "I see what you mean" or "I get the picture." Their voice is usually high pitched with shortness of breath because they tend to breathe high in their chest. Their voice tempo is usually faster than that of auditory or feelers. They can recount colors or shapes or descriptions with remarkable accuracy.

### AUDITORIES

Auditories do not trust their feelings. They are often proud of their voices and are usually musicians. They trust only sounds even though the sounds keep changing. They tend to breathe in the middle of their chest and speak in even rhythmic tempo. They can remember hearing a person's name, but they cannot recall their face. They tend to use phrases such as, "I hear what you say" or "that rings a bell." The auditory person's eye movements will be horizontal, from side

to side, looking either to the left or to the right. They may also tend to look downward at a forty-five (45) degree angle to the left.

### KINESTHETICS

Kinesthetics or feelers are persons who breathe deeper and speak slower. Their voices are generally lower in pitch than that of visuals or auditories. They think before they speak to allow them the time to check out their feelings. They seem to enjoy almost everything. They will explain their thoughts in terms of how they feel at that particular time. They trust their feelings and yours more than just hearing words or sounds. They have trouble remembering person's names or faces, but they can recall whether they liked that person or not. Their eye movements when they are remembering is at a forty-five (45) degree angle, downward, to the right.

Eye movements systematically reflect what the brain is doing. Eye movements show whether you are using a visual, an auditory, or a Kinesthetic representational system at a particular moment. (Bennett 1992)

Everyone is not totally visual, auditory or kinesthetic. It depends on your conscience mind and the situation. On a conscience level we tend to move from one system to the other.

When interviewing persons, begin by asking informational questions that require the person to think or remember. The person will then exhibit one or more of these representational systems. You may only be able to observe it for a brief moment but it will be clearly visible. Most often they will have a predominant system. During interrogations or interviews if the person displays a predominant system and changes or departs from that predominant system, he/she may be exhibiting signs of deception. This alone is not a concrete test for determining deception. However, when taken into context with other nonverbal signs or signals, it is an excellent cue for signalling that person is being deceitful. Once you have determined what system the subject refers to when he/she is deceitful, the subject will normally continue to refer to that system during deception.

### CULTURAL CONSIDERATIONS

The United States is a multicultural nation drawing citizens from around the world. Personal ambitions and the pursuit of individual freedoms enable the United States to continue to draw persons from different cultures. In the past individuals far and wide settled in the metropolitan areas. Nowadays persons from different cultures can be found in urban and rural areas as well. These persons have different ways of expressing themselves both verbally and nonverbally.

Body contact causes the most problems in the identification of nonverbal behavior with persons of different cultures. Some cultures recognize body contact, closeness, and frequent gesturing as part of their communication process. Some examples of these are: Arabs, Southern Mediterraneans, and Latin Americans. Other cultures communicate from a distance and impede physical contact. Some examples of these cultural persons are the English and Northern Europeans. It is said that Anglo-Americans fall somewhere in between contact and noncontact cultures but more often lean toward contact culture. Orientals do not feel that it is polite to maintain eye contact with persons who are in authority.

It is important for officers to understand the communication patterns of persons from different cultures to enable them to accurately interpret their nonverbal behavior as well as their verbal behavior.

## CONCLUSION

Whenever officers confront supervisors, fellow officers, or the general public, they must fully understand that their actions speak louder than their words. The receivers will form an opinion of them, most often, before they speak. Their nonverbal behavior will and has a significant impact on their professional image and their chosen profession. Their behavior further affects the receiver's view of the officer, the police department, and as a whole, the general attitude toward law enforcement. Persons will be able to interpret when the officer is interested, concerned, truthful, and/or possibly deceptive. They may readily observe when the officer is being deceptive in the sense that the officer is displaying nonverbal behavior that is contradictory to what he/she is actually saying.

The interpretation of verbal and nonverbal behavior has been more often used by criminal investigators to determine whether suspects are being truthful. A successful criminal investigator does not exist who has not used or observed some nonverbal communication to detect deception. Many offenses go unsolved because of the lack of knowledge in the interrogation process and in the observance and interpretation of verbal and nonverbal behaviors.

Interrogation creates anxiety, nervous tension, and a state of mental aggravation in the subject. The subject will have to deceive or attempt to deceive the interrogator if he hopes to escape the consequences of the crime that he has committed, that is, he will have to lie successfully to the interrogator. These attempts at deception will generally fall into one or more or a combination of physical, emotional, and mental symptoms. (Aubry and Caputo 1980)

Experienced officers and investigators are fully aware that when a suspect is confronted with discrepancies and inconsistencies in his/her statements they will usually confess. Officers who have the knowledge to interpret nonverbal communication to detect these discrepancies and inconsistencies can use this information in confronting the suspect or witness and regularly obtain the truth.

Persons often express their emotions through nonverbal behavior and over periods of time they subconsciously learn this behavior that generally becomes customary in their communication process.

Remember that no single nonverbal communication cue can be used in detecting deception. When analyzing behavior it must be evaluated for timing, and it must be consistent. These behavioral patterns when used in conjunction with other information, evidence, or statements are positive assurance that the subject is being deceitful. The officer who can properly identify, interpret, and evaluate nonverbal communication will frequently obtain the truth. They will successfully evaluate persons who are being deceptive, holding back information, or displaying behavior that is

contradictory to what the person is actually saying.



BIBLIOGRAPHY

Aubry, Arthur S. Jr. & Caputo, Rudolph R. Criminal Interrogation, Springfield, Illinois, 1980

Bennett, Margo, Federal Bureau of Investigation, Quantico, Virginia. Interviewed by author, August 1992

Brougham, Charles. "Nonverbal Communication." Law Enforcement Bulletin, July, 1992

Buckwalter, Art. Interviews and Interrogations, Woburn, Massachusetts, 1983

Cheatham, T. Richard and Erickson, Keith V. The Police Officer's Guide to Better Communications. Glenview, Illinois, 1984

DePaulo, B.M., Stone, J. and Lassiter, G.D. "Deceiving and detecting deceit." The Self and Social Life, 1985, 323-370

Ditzler, Lolita. "Eyes: The Body's Lie Detector." Police Magazine, September 1988

Evans, Daniel. "10 Ways To Sharpen Your Interviewing Skills." Law And Order, August 1990

Goleman, Daniel. "Can You Tell When Someone is Lying To You." Psychology Today, August 1982

Goleman, Daniel & Freedman, Jonathan. What Psychology Knows That Everyone Should, Lexington, Massachusetts, 1981

Gorden, Raymond L. Strategy, Techniques and Tactics, Homewood, Illinois, 1980

Harrison, Robert. "Use Of Nonverbal Cues To Detect Deception." Law And Order, September 1986

Hess, John, Federal Bureau of Investigation, Quantico, Virginia. Interviewed by author, August, 1992

Inbau, Fred E. & Reid, John E. Criminal Interrogation and Confessions, Baltimore, Maryland, 1967

Inbau, Fred E. and Reid, John E. Criminal Interrogation and Confessions, Baltimore, Maryland, 1986

Kennish, John W. "Finding The Truth." Internal Auditor, December 1989

Kestler, Jeffrey L. Police Interrogation and Confessions: Essays in Law and Policy, Ann Arbor, Michigan, 1982

Link, Frederick and Foster, Glen. The Kinesic Interview Techniques, Anniston, Alabama, 1982

McKinnon, Dr. Murlene E. "A Guide to Nonverbal Deception Indicators." Law And Order, January 1982

Neil, Thomas C. Interpersonal Communications for Criminal Justice Personnel, Boston, Massachusetts, 1980

Pritchett, Garry L. "Interpersonal Communication - Improving Law Enforcement Image." Law Enforcement Bulletin, July 1993

Salhany, Roger E. The Police Manual of Arrest, Seizure, and Interrogation, Toronto, Canada, 1986

Stewart, Charles J. and Cash, William D. Interviewing Principles and Practices, Dubuque, Iowa, 1982

Tolor, Alexander. Effective Interviewing, Springfield, Illinois, 1985

Van Meter, C.H. Principles of Police Interrogation, Springfield, Illinois, 1973

Yeschke, Charles L. Interviewing; An Introduction to Interrogation, Springfield, Illinois, 1987