

YOUR BODY REVEALS YOU

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Abstract: *Detecting deception is one of the most important skills for professionals to use in the field of their profession. These skills are capable of being improved over time in direct proportion to experience by scanning essays on the subject and having a lot of practice. Reading body language cues is a practical study that can be applied in every minute of daily life. We can catch a lot of useful tips by examining the people around us like our family and our friends in the business, park, bus stop or a restaurant.*

Keywords: *nonverbal communication, body language, lie detection, stress detection.*

THE MOMENT THAT THE HOMICIDE CASE IS SOLVED

A sudden phone call informed of a homicide to the police. The Police Chief and his staff went to the crime scene in order to investigate the case. In the open field, there was a common fountain which has a small pool for the cattle to drink water. In this pool, filled up with water, there was the corpse of a woman who was half naked. In her possessions, there was nothing else but a soaked mobile phone to learn her identity. With the help of a cellular repairer, the phone is started again. The identity of the woman and the last person whom she spoke with was learned. The Police decided to go to the suspect's house.

In homicide cases, the importance of fast action is undisputed, because while time is passing by, the suspect can spoil the evidence and make up a fake alibi. For this reason, the same afternoon, the police force raided his house with permission from the prosecutor. The suspect was at the house with his family. When he encountered the police, he behaved very cool when the staff started to search the house, the police chief took the suspect to the police car to conduct a private interview. The suspect seemed very relaxed and was answering the questions in a calm manner. The police chief mentioned the name of the woman without mentioning the homicide, "Do you know Fatma Turna?" When the suspect heard the name, in a moment, his looks has changed. His mouth went dry and he tried to say that he didn't know a woman with this name. Because of the dryness in his mouth, he couldn't even answer properly. After approximately ten seconds, he returned to his calm manner. A whole day long, he was interrogated. At the end of his custody, although it had been proven that he committed homicide with the help of the evidence and witnesses, he never confessed. But the "momentary" expression was enough for the police officers to be sure they were on the right track.

The suspect had known why the police came for sure and he had prepared himself for this. But, hearing the name of the murdered woman caused some involuntary behaviors in his body which were easily observed.

1. NONVERBAL BEHAVIORS AND NONVERBAL COMMUNICATION

Nonverbal behaviors, with its narrow meaning, refer to the behaviors other than talking (Mehrabian, 2007:1). In this concept; facial expressions, gestures, postures, positions and foot / leg movements can be

included. It is commonly known as body language and there are many books which are written by practitioners about it. When it is used in the broad sense of the non-verbal movements, the body language concept is not enough; the concept of nonverbal forms of communication is more correct. Because in this field; body language (kinesics),

proximity and use of space (proxemics), tactile (haptic), environmental factors (eg, architectural style, odor, color, temperature, lighting, noise, and traces of the previous movement), physical properties (general attractiveness, breath odor, length, weight, and hair-tan), paralanguage (voice pitch, loudness, speaking rate, intensity, silent pauses, speech mixed with sounds, speech disorders), artificial items (perfumes, clothes, lipstick, glasses, tattoos) should be included (Knapp & Hall, 1978).

The pioneering work of non-verbal communication belongs to Charles Darwin. In his distinguished book, "Expressions of emotions in man and animals", he tried to establish the common facial expressions of humans and animals. In his book, Darwin stated that these expressions are innate and universal. Since then, thousands of studies have emerged in the most interesting and mysterious field of communication science, but in this issue, there is at least one further topic to be investigated.

2. NONVERBAL LEAKAGE

Darwin stated that "Based on the habitual movements that are associated with certain situations can be partially controlled. The muscles that can be controlled at least in this case exposes the most credible statements, and we accept them descriptive" (Darwin, 1965). With this statement; he means that the movements which the sender (source) can't control, will tell to the receiver the truth.

Freud, in a manner that is more poetic, *"He that has eyes to see and ears to hear may convince himself that no mortal can keep a secret. If his lips are silent, he chatters with his fingertips; betrayal oozes out of him at every pore"* (Freud, 1959:94) referred to the same subject.

As is proved by the above scientific judgments, during a dialogue when we don't tell the truth, our bodies will often betray us. Because, we cannot control our non-verbal behavior as much as we control our verbal behavior (Pennycook, 1985:264). Mimic is related with our emotional world and is open to our routing attempts. However, the

deliberate use of facial muscles might cause the emergence of opposing signals, for example, can cause a false smile. This smile is not a symmetrical one like a genuine smile. We try to give a friendly and respectful greeting, but a number of muscles that signal contempt emerge. Mostly we want to look relaxed during communication, and want to control our facial expressions and gestures, but a nervous foot shake may reveal us (Schober, 1996:39).

Voluntary or involuntary movements are executed by our brain. The human brain can be examined in three parts: reptile brain, the mammalian brain (limbic system) and the human brain (neocortex) (MacLean, 1952). The limbic system is the reason for the body's spontaneous movements for our survival; the emotions of fear, disgust, tension always emerge in this part. If our heart beats speed up and our breathing frequency increases when we hear the footsteps behind us, while walking down a deserted street at night; it is the result of the limbic system. This part of the body is the honest one because we don't have any dominance over it. It means, while the neocortex refutes a crime that we committed; the limbic system expresses the truth to the counterpart by giving signals like sweating, motion freezing, dry mouth, etc. (Navarro, 2008:25).

In connection with this matter, channel capacity should be mentioned. Channel capacity refers to the amount of information that a communication tool can transfer per unit of time (Cherry, 1966:178). According to Ekman and Friesen, the body parts with the lowest channel capacity, provide the most cues on deception (Ekman, Friesen, 1969). Our faces, comparing to our hands and our hands comparing to our feet can transfer more data per unit time. In that case, our legs reveal more cues to deception than our hands and hands give out more than face.

Everyone, who communicates knows that his/her facial expression is being read permanently and for this reason he/she tries to dominate these expressions. In this case, the signals which emerge as far as possible from our faces reflect the actual state of mind. The relationship of the face and foot movements, is

as follows: “*Being away from our heads, we forget to control our feet while we are in a excited conversation or while we are trying to make up a lie. So, the feet are the most realistic limb of our body. Whatever facial expression; unconscious movement of our feet exposes the real mood of ours.*” (Schober, 1996:39).

Former FBI agent and body language expert Joe Navarro, proves the same argument by expressing that the most honest part of the body is the feet and legs (Navarro, 2008:63). Navarro, in his book, contrary to the common manner, recommends to read the signs of body language upward, starting from the feet (Navarro, 2008:63).

Albert Mehrabian, after the experiments he conducted on "nonverbal leakage" or a general sense "lying signs", has reached the following conclusions:

- When people lie, a greater amount of negative feelings are expressed by nonverbal behavior.
- Facial expressions, are less effective in revealing the lie, because our control on the face is stronger.
- A happy facial expression incompatible with the social environment, can be a deceptive act to soothe the other person.
- Over-stressed or introvert people smile less when lying, so they are less likely to conceal the cues to lie.
- People are likely to limit their talking time while lying. People who lie or are stressed, slip of the tongue and speech disorders like stuttering increase.
- While lying, affirmative nodding and foot/leg movements are reduced.
- Volume level, shows self-confidence and dominance. People who lied or are stressed decrease the volume level.
- Swinging movement while sitting and increasing the foot/leg movements, shows the comfort level of the person (Mehrabian, 2007:98). But fidgeting can be sign of stress.

The responses of the body while lying are caused by differences in reality and rhetoric. Those skilled at lying are the ones who can make himself believe the fiction he/she designed in the mind at the beginning. When

fiction is believed, or the liar is able to convince himself/herself, the body naturally will not give any signal to the other party.

3. THE MOST COMMON BEHAVIORS OF LIE AND STRESS

Closing Mouth: Brain instructs to suppress the lies unconsciously. While closing the mouth in children is an obvious sign, more subtle closings occur with age, more and more fingers lightly cover up is encountered. Sometimes there can be people who gently hold their hands in their mouth in the form of coughing.

Touching Nose: "Smell and Taste Treatment and Research Foundation" in Chicago has identified that, chemicals called *catecholamine* release in a person who lies and the tissues of the nose filled with more blood. As a result of the experiments made with special cameras, showed that lying people's nose grew slightly which cannot be seen visually and this is named "Pinocchio Effect". We cannot see the nose growing with eyes, but we can see the effect of the increase in blood circulation in the form of the person gently touching his nose.

Scratching Nose: In contrast to lightly touching the nose, people who lie can scratch their nose in a more prominent way.

Scratching Eyes: This can be done by people who do not want to scratch their noses. This is the brain's effort to prevent the lie or to hinder seeing the thing which the person does not want to be seen.

Scratching Neck: In general, it is seen in the form of scratching the side of the neck by the index finger. It may indicate instability and uncertainty.

Collar Adjusting: In the event of stress or telling a lie, sweating increases due to the increase of blood circulation. This is the main reason of the collar detraction. (Pease, 2006:148).

4. RESEARCH RESULTS CONCERNING LIE DETECTION RATES

Even There are many studies concerning judicial and law enforcement personnel's lie

detection rates in the world. Through this research, the accuracy of detecting the verbal or non-verbal signs of lies by the expert or supposed to be expert is aimed. In most research, the accuracy of lie detection is stated to be close to chance. (DePaulo, 1994, 1998; DePaulo *et al.*, 1985; Zuckerman *et al.*, 1985).

In the meta analyses of the 37 researches' results which were conducted to detect the cues of deception, accuracy rate is between 45% and 60% and the average accuracy is 57%. It actually shows that people are not good at lie detection. (Vrij, 2000). Another research showed that the professional lie detectors could not catch the high accuracy rates of lie detection comparing with the ordinary volunteers from the university students. (DePaulo *et al.*, 1986; Ekman *et al.*, 1991; Ekman *et al.*, 1999; Köhnken, 1987; Vrij, 1993; Vrij *et al.*, 1997; Vrij *et al.*, 2001). Ekman & Sullivan have stated that only American secret service personnel could get better results than the university students. (Ekman *et al.*, 1991).

Two methods are used for the detection of lying through interviews and interrogations: **Direct evaluation** (Is this person lying?) and **Indirect evaluation** (Did this person get in too much trouble to respond?). In direct evaluation, the observer focuses on the signs of lies and tries to evaluate the signs according to this. In indirect evaluation, a person focuses on psychological assessments for the results rather than signs of lying. In direct evaluation, the question "Is this person lying?" leads us to result but in indirect evaluation, the reply is taken by the question "Does the speaker really like the person that he mentioned". (Vrij *et al.*, 2001). All of the research shows that only indirect evaluations have more accuracy and accuracy rates of these kinds of evaluations are more than chance. (Anderson, DePaulo 1999; DePaulo, Jordan *et al.*, 1982).

Another study has been conducted to detect deception cues according to the style of interrogating (Vrij *et al.*, 2007). In this research the techniques of

(i) **incriminating interrogation** and

(ii) **information collecting interrogation** were evaluated.

In incriminating interrogation, law-enforcement officers directly divert incriminating types of questions against the suspects. (For example, "Your responses suggest that you're hiding something"). In information collecting interrogation, they ask the suspects open-ended questions in order to make them to explain the whole story. (For example, "What did you do between 3 pm and 4 pm?", "You told me that you were at the gym last night, who else was there with you?"). As it can be easily seen in incriminating interrogation short answers are taken from the suspect (for example "I am not hiding anything") whereas more long answers are taken in information collecting interrogation. As the words are the verbal cues, it is indisputable that detecting the signs of lie is more possible in longer answers. As a result of the research, information collecting interrogation, exposes more verbal signs of lying rather than incriminating interrogation. Also incriminating conversation could not expose any clues of verbal signs (Vrij *et al.*, 2007).

Some of the results obtained from the results of the research are as follows:

- If law enforcement personnel cannot confirm what the suspect told, they prefer to read nonverbal signs: rather than verbal statements during the interview.

- Assessing a person as telling a lie, only makes sense when performed by professionals. Even in this case, all of the assessments will not be correct. (Ekman *et al.*, 1999).

- When a law-enforcement personnel interviews with the suspect through incriminating interrogation, if he thinks that he "knows" or is "sure" the suspect is "guilty"; he/she does not change this prejudice and he tends to put pressure on the suspect to confess. This can cause an innocent suspect to take the responsibility of a crime. (Kassin, 2005).

Professional lie detectors, such as law-enforcement personnel do not easily think that the suspect is telling the truth (Vrij *et al.*, 2005). Furthermore sometimes they tend to be prejudiced toward the suspect as guilty. While the law-enforcement staff is getting more experienced and having more training in lie

detection; they tend to be a prejudiced that the suspect is guilty (Meissner *et al.*, 2002).

5. CONCLUSION

Matters that I mentioned above may be the cues which can be used for detecting the signs of lying. However, the following should also be noted that these kinds of cues can be caused by tension or discomfort of the other part at that time. For example, if a person is frequently scratching his nose, this may be just because of flu. Detecting deception is a demanding effort. Many experiments which had been carried out on students and law-enforcement personnel showed that the accuracy of detecting the cues of lie is almost equal to chance rate. Unfortunately, the misunderstood behaviors which were mostly thought to be the indicators of deceit were generally caused by the stress and pressure. (Ekman, 1991:187). Judicial officials should imagine the stress of the suspect who is accused of murder in the court hall, approach the suspect without prejudice and try to make assessments within this framework.

BIBLIOGRAPHY

1. Anderson, D.E., DePaulo, B.M., Ansfield, M.E., Tickle, J. J., & Green, E. (1999). Beliefs about cues to deception: Mindless stereotypes or untapped wisdom? *Journal of Nonverbal Behaviour*, 23, 67–89.
2. Cherry, C. (1966). *On human communication*. Cambridge, Mass: M.I.T. Press.
3. Darwin, C. (1965). *The expressions of the emotions in man and animals*. (First published 1872). Chicago: The University of Chicago Press.
4. DePaulo, B.M., Jordan, A., Irvine, A., & Laser, P.S. (1982). Age changes in the detection of deception. *Child Development*, 53, 701–709.
5. DePaulo, B.M., Stone, J.L., & Lassiter, G.D. (1985). Deceiving and detecting deceit. In B. Schlenker (Ed.), *The self and social life*. New York: McGraw Hill. 323-370.
6. DePaulo, B.M., & Pfeifer, R.L. (1986). On-the-job experience and skill at detecting deception. *Journal of Applied Social Psychology*, 16, 249–267.
7. DePaulo, B.M. (1994). Spotting lies: Can humans learn to do better? *Current Directions in Psychological Science*, 3, 83–86.
8. DePaulo, B.M. (1998, May). Deceiving and detecting deceit: Insights and oversights from the first several hundred studies. *Invited address presented at the annual meeting of the American Psychological Society*, Washington, DC.
9. Edelman, R.S., Luten, Tanya L., Ekman, P., Goodman, G.S. (2006). Detecting lies in children and adults. *Law and Human Behavior*. Vol.30. No.1. pp.1-10.
10. Ekman, P. & Friesen W.V. (1969). Nonverbal leakage and cues to deception, *Psychiatry*, 32, 88-106.
11. Ekman, P. (1991). *Telling lies: Clues to deceit in the marketplace, politics and marriage*. New York: W.W. Norton & Co.
12. Ekman, P., & O'Sullivan, M. (1991). *Who can catch a liar?* *American Psychologist*, 46, 913–920. Freud, S. Fragment of an analysis of a case of hysteria (1905), in *Collected papers*, Vol.3. New York: Basic Book.
13. Ekman, P., O'Sullivan, M., & Frank, M.G. (1999). A few can catch a liar. *Psychological Science*, 10, 263–266.
14. Goman, C.K. (2008). *İşyerinde beden dili*. Alfa Yayınlan.
15. Howard, A.S. Nonverbal communication in teaching. *Review of Educational Research*. 1979. Kassin, S.M., (2005). On the psychology of confessions: Does innocence put innocents at risk? *American Psychologist*, 60, 215-228.
16. Knapp, M.L. & Hall, J.A. (1978). *Nonverbal communication in human interaction* (2nd edition). New York: Holt, Rinehart, & Winston.
17. Köhnken, G. (1987). Training police officers to detect deceptive eyewitness statements. Does it work? *Social Behaviour*, 2, 1–17.
18. Mehrabian, A. (2007). *Nonverbal communication*. New Jersey: Aidine Transaction.

19. Meissner, C.A., & Kassin, S.M. (2002). "He's guilty!": Investigator bias in judgments of truth and deception. *Law and Human Behavior*, 26, 469-480.
20. Molcho, S. (2007). *Çocuk beden dili*. Delta Yayınları.
21. Navarro, J. Dr.Karlins, M., (2009). *Beden dili*, Alfa Yayınları.
22. Pease, A. and B. (2006).*The definitive book of body language*. Bantam Books..
23. Pennycook, A. (1985). Lauder than words: Paralanguage, communication, and education. *TESOL Quarterly*, Vol.19, No.2.
24. Schober, Otto. (1996). *Beden Dili (Davranış Anahtarı)*. Arion Yayınevi.
25. Talwar, V., & Lee, K. (2002). Development of lying to conceal a transgression: children's control of expressive behavior during verbal deception. *International Journal of Behavioral Development*, 26, 436-444.
26. Vrij, A. (1993). Credibility judgments of detectives: The impact of nonverbal behavior, social skills and physical characteristics on impression formation. *Journal of Social Psychology*, 133, 601–611.
27. Vrij, A., Edward, K., Roberts, K., & Bull, R. (2000). Detecting deceit via analysis of verbal and nonverbal behavior. *Journal of Nonverbal Behavior*, 24, 239–263.
28. Vrij, A., & Mann, S. (2001). Telling and detecting lies in a high-stake situation: The case of a convicted murderer. *Applied Cognitive Psychology*, 15, 187–203.
29. Vrij, A. (2005). Cooperation of liars and truth tellers. *Applied Cognitive Psychology*, 19, 39-50.
30. Vrij, A. Mann, S., Kristen, S., Fisher, R.P. (2007). Cues to deception and ability. To detect lies as a function of police interview style. *Law and Human Behavior*. 499-518.
31. Wilson, A.E., Smith, M.D., & Ross, H.S. (2003). The nature and effects of young children's lies. *Social Development*, 12, 21-45.
32. Zuckerman, M., & Driver, R.E. (1985). Telling lies: Verbal and nonverbal correlates of deception. In W.A. Siegman & S. Feldstein (Eds.), *Multichannel integration of nonverbal behavior*. Hillsdale, NJ: Erlbaum. 129-147.