

## Behavioral Analysis of Suspects

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### *Abstract*

Behavioral analysis is a method used in conducting a targeted interview with suspects, where the ultimate goal is to obtain reliable information. The main task of the behavioral analysis is to distinguish the sincere from the insincere subject on the basis of their behavior. It can also be used by experts as a preliminary interview, during which the verbal, non-verbal and para-verbal behavior of the subject is analyzed. It is also very useful in screening procedures, in which there is lack of sufficient information in relation to the specific case at hand, and at the same time there are many suspects. This article presents the essence of behavioral analysis, basic guidelines for the procedure of conducting it, and a comparative analysis of the reactions of sincere and insincere suspects.

*Keywords:* behavioral analysis, nonverbal communication, pretest interview, polygraph.

### 1. History of behavioral analysis

The first reports of Reid and Arthur from the distant year 1953 are the basis of behavioral analysis. The authors refer to the behavior of the individual when he/she is under the conditions of a polygraph examination (Reid & Arthur, 1953). Research on the pretest interview gave the beginning of the development of behavior analysis. In 1994 large-scale studies have been carried out on these methods, and a number of experiments have been carried out (Horvath et al., 1994).

Three experts, a polygraph examiner and two psychologists, aimed to make an independent assessment of suspects in a real situation. Video and audio recordings were used during the interviews. The task of the experts was to give independent assessment on the basis of only one channel of information (video, audio or written) and to determine whether the examined person had anything to do with the crime. The procedure included:

1. Analysis of written responses from the protocol for behaviorally provoking questions asked of suspects;
2. Analysis of non-verbal behavior of suspects from the video footage only, not including the audio;
3. Observation of verbal and non-verbal behavior through audio and video recordings simultaneously.

The analysis made by Horvath and colleagues (Horvath et al., 1994), showed a significant difference between the behavior of guilty and innocent suspects in terms of their verbal, paraverbal, and nonverbal behavior. Sincere persons used more often illustrative gestures accompanying the speech, nodded more often, maintained direct eye contact with the speaker, etc. Also, sincere individuals used a greater amount of expressions and phrases that were more descriptive in nature. Findings of the study indicated that in real-world settings, assessment of verbal and nonverbal behavior observed during behavior analysis can be useful to the profession. The main finding was that there is a significant correlation between verbal and non-verbal behavior called synchrony.

### 1.1 *Rationale behind behavioral analysis*

The knowledge of guilt and the memories of specific actions committed during a crime of persons involved in a given criminal act underlie the differential attitudes and behaviors of innocent and guilty suspects (Horvath et al., 2008).

The main difference between an interview and an interrogation is that the purpose of the interview is to gather information, while the purpose of the interrogation is to obtain confessions. The two processes are interconnected, but at the same time fundamentally different (Vladimirova & Todorov, 2020).

The internal barriers that guilty suspects place on themselves, as well as the inability to share information, leads to specific verbal and nonverbal responses to the interviewer's questions. Here we may observe an increase in manipulative gestures and soothing behaviors that aim to reduce the high levels of stress and tension in such an unusual situation. The immediate response of the limbic system in the brain, which is responsible for the basic fight, flight or freeze reactions, is also activated here. These limbic responses lead back to our origins as a species. They are deeply rooted in our nervous system and for this reason they can hardly be masked or eliminated. For example, it is impossible for us to suppress startle responses to hearing a loud noise or fear responses. Limbic behavior is organic in a sense and can be relied on, as it is a manifestation of our true feelings, intentions and thoughts (Navaro & Karlins, 2008). When we talk about nonverbal behavior, the limbic brain is considered the genuine brain (Goleman, 1995).

## 2. Behavioral analysis. Types of questions

### 2.1 *Conducting a behavioral analysis*

To conduct a professional behavioral analysis, there are mandatory conditions that must be met. First of all, it is necessary to have an environment with no distracting signs, elements and windows. It is good for the interviewer to sit in front of the subject at a distance of about 2 meters (Horvath et al., 2008). Here, the main goal is for the expert to have complete visual contact and not to lose any of the channels of communication and information. In the initial minutes of the interview, the rapport is built. One of the techniques for establishing a strong rapport between an interviewer and a suspect is by asking neutral questions that do not elicit an emotional response from the subject, as well as the "Mirror" technique, where the interviewer reflects the body position and non-verbal communication of the suspect in general. Pace of speech, intonation, and ups and downs in the paraverbal channel are also essential in building trust. Another mandatory condition is that the expert does not use an accusatory tone and does not attribute emotions of guilt. If these conditions are not met, the probability of an accurate and objective assessment of the suspect's behavior is drastically reduced.

During the interview the interviewer can take notes in relation to the answers to the questions asked by him, as well as on the non-verbal reactions of the suspect (Horvath et al.,

2008). An important condition here is that the interviewer does not record only at certain moments, but throughout the interview, because otherwise it can increase the defensive response, increase the vigilance of the suspect and interrupt free and casual communication.

In the first few minutes of the interview, as a rule, general, biographical information about the suspect is collected. Collecting this type of demographic, biographical information allows the interviewer to assess and establish the suspect's baseline behavior (Horvath et al., 2008). This can be, for example, the duration of eye contact, the time required to respond and react to a given stimulus, the presence or absence of tension, etc. Each individual has his own unique style of communication, which makes the establishment of norms of behavior particularly important (Ekman, 2011). Without it, the interviewer cannot be sure when and under what circumstances a change from this norm occurs and what exactly it may be related to. Very often non-confident individuals change their line of behavior in cases where they are asked relevant questions that have too much subjective meaning, or in other words, topics that they would not like to discuss. This change very often manifests itself when it comes to concealing sensitive information in connection with a specific case.

## 2.2 Types of questions

During the behavioral analysis of the suspect, three different categories of questions are asked. This happens in separate, precisely defined time intervals. Broadly speaking, these questions are: initiating, probing and behavior eliciting questions.

1. Initiating questions – these concern neutral topics, questions regarding style of life, past experience, etc. They are asked at the beginning of the conversation and their main purpose is to establish a rapport;
2. Investigative questions concern things like the suspect's actions, assessment, motivation, and propensity to committing a crime;
3. Behavior-provoking questions – those are used to elicit certain verbal and non-verbal responses that differ significantly between innocent and guilty suspects. They are developed and substantiated based on empirical observations. Specific guidelines determine the interpretation of test subjects' responses during behavioral analysis (Reid, 2018).

General benefits of using the three types of questions in behavioral analysis is the following.

- **Assessing deviation from the norm in the suspects' behavior**

It is good to know here that there are no specific indicators of behavior that are directly related to claims of innocence or guilt. It is important to assess the totality of non-verbal signs and signals, as well as the specific moment at which they begin to be observed and manifested. The more often a change from the norm is observed when asking subjectively threatening questions, the greater the probability that the person is hiding the truth in relation to the topic under investigation (Horvath et al., 2008).

- **Assessment of synchrony or asynchrony between verbal and nonverbal behavior**

The presence of asynchronous, asymmetric gestures, lack of timing, manipulator gestures, etc.

- Be aware of **hidden factors** that would affect the validity of the analysis. Examples of these are the seriousness of the crime, what the suspect knows

about it, his current emotional state, the cultural and social environment in which he operates (Horvath et al., 2008).

### *2.3 A comparative analysis of the reactions of truthful and deceptive suspects*

Below, the most common responses of truthful and deceptive suspects to behaviorally provoking questions related to theft will be discussed. The data was collected from separate interviews conducted by the authors of this article with suspects, in connection to a theft. In order to adhere to ethical norms and rules and maintain confidentiality regarding the identity of the suspects, their names are replaced with the name “John”.

#### **I – the interviewer**

#### **S – Suspect**

*I: John, what do you think is the reason for you being here today?*

*S (Innocent): Well, yesterday morning, the manager of our company informed us that an amount of BGN 5,000 was missing from the cash register in our office. However, I am sure that the day before I put the whole amount in the safe. The reason I’m here today is to prove that I didn’t steal the missing money.*

*S (Guilty): Well, I guess a colleague might have lost the money and I’m only here to help with what might have happened.*

*I (behavior-provoking question): What do you think the perpetrator of such a crime deserves? Would you give him a second chance?*

*S (Innocent): The perpetrator deserves what is due to him by law. I wouldn’t give him a second chance.*

*S (Guilty): I don’t know, but I would give him a second chance. Maybe there’s a reason he did it.*

*I (behavior-provoking question): If someone said that you stole the money, how would you react?*

*S (Innocent): I would be angry; I wouldn’t like it.*

*S (Guilty): It is normal in this situation for someone to think it’s me. However, I have nothing to do with this thing.*

*I (behavior-provoking question): If someone said that you stole them, what would you do?*

*S (Guilty): I will want from that person to prove that it’s me. For example, I will want to see the cameras.*

*I (behavior-provoking question): Do you suspect any of your colleagues?*

*S (Innocent): I can’t throw an accusation just like that. I don’t suspect any of my colleagues.*

*S (Guilty): To be honest, people with a dirty past work here, it is possible that a colleague of mine stole it.*

### 3. Analysis

Since the examples are presented in written form, we can make a linguistic analysis of the statements of the truthful and the deceptive suspect.

In the statement: “*S (Guilty): Well, I guess a colleague might have lost the money and I’m only here to help with what might have happened.*”, we see from a linguistic point of view the distance that the guilty suspect creates, directing the interviewer’s attention to another person, diverting suspicion from himself. This behavior is characteristic of individuals who are insincere about the relevant topic.

In the statement: “*S (Guilty): I don’t know, but I would give him a second chance. Maybe there’s a reason he did it.*”, similar type of responses to the behavior-provoking questions are indicative for individuals who are connected to the committed crime, because in this way they try to minimize the consequences of their actions and do not want to engage in a conversation about the criminal act. Here one sees a drive for rationalization on the part of guilty suspects, trying to find a justifiable reason for such criminal acts.

In the statement: “*S (Guilty): It is normal in this situation for someone to think it’s me. However, I have nothing to do with this thing.*” Innocent people would never say that it is normal to doubt them first. The authentic reaction of an innocent person when unjustly accused can be one of anger and resistance. The sentence: “*I have nothing to do with this thing*”, shows a desire for depersonalization and minimization of what was done. In comparison, innocent persons would use the direct meaning of the words, saying something like: “*I have nothing to do with this terrible theft, crime, etc.*”

In the statement: “*S (Guilty): To be honest, people with a dirty past work here, it is possible that a colleague stole it.*” – here we see again an attempt by the guilty suspect to divert attention from himself and direct it to a colleague. Honest people rarely would shift the blame to others, even in cases where they have real facts and arguments, they tend to keep their doubts and suspicions to themselves.

### 4. Conclusion

The information professionals collect from the behavioral analysis give a very serious direction to the investigating authorities in their work with perpetrators of serious criminal crimes. In combination with the polygraph examination, the analysis of verbal and non-verbal behavior greatly increases the reliability of the conclusion. However, the observations from the behavioral analysis alone should not be considered a basis for a final opinion regarding participation in a given crime. Additional studies are needed in this direction, both in practice and in laboratory conditions.

Much attention should be paid to how best to simulate a real-life situation in a laboratory setting. It is believed that in such an environment it is difficult to simulate the motivation and consequences of actions that exist in real life. In fact, it is the difference between these two environments that is at the heart of the controversy over how best to interpret empirical data. If research is protected in a laboratory setting, it will lead to optimization of behavioral analysis observations (Horvath et al., 2008).

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