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Problems of Questions in Event Knowledge Tests

When reviewing application possibilities of event knowledge tests (GKT, CIT, EKT), all authors (Abrams, 1989; Ben-Shakhar and Elaad, 2002; Krzyscin, 1998; Lykken, 1981; Matte, 1997; Nakayama, 2002; Soshnikov et al., 2008) state that the application of event knowledge tests is limited due to the following:

1. It is difficult to formulate a sufficient number of relevant questions;
2. The number of questions reduces because the information about the details of an event is publicised in the media and sometimes it is made public by incompetent criminal police investigators or prosecutors.

We have been unable to find in any literary sources any descriptions of experiments on the impact of the information about a criminal event which

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was made public on the results of polygraph testing. We are planning to collect more experimental data about this phenomenon and when we are ready to comment on the results they will be announced.

Polygraph testing is aimed not only at identifying the perpetrator. The major target is to objectively determine the circumstances and the actors of the crime. When a polygraphist is assigned a task and starts working with a subject examined, he does not know whom he/she is facing – a person completely unrelated to the event, a witness, an accomplice or a perpetrator of a crime. In cases when several people committed a crime, each of them may have contributed to the crime in a different way.

We prepared two tactics of questions and tested them in the investigations of criminal offences.

PERPETRATOR IDENTIFICATION TACTICS. It has been already mentioned that we do not recommend using the so-called direct questions and answers in EKT tests (Salžiūnas and Kovalenko, 2008). The following example illustrates the aforesaid. Investigators have to find out who stabbed a victim with a knife. A question and multiple-choice answers are formulated in the following way:

Who stabbed the victim with a knife?

0. Walter
1. Otto
2. Ivan
3. Peter
4. Simas
5. Arthur
6. Someone else.

The names: Walter, Otto, Ivan, Peter, Arthur are foreign, and only Simas is Lithuanian.

The polygraphist is examining Simas who claims that he does know who stabbed the victim. The circumstances of the event under investigation have been discussed with Simas. He is aware that the investigation conducted concerns the murder of Mr. K., he knows the time, place of the murder and how the victim was murdered. The polygraphist reads out the question and explains that during the polygraph testing he will be told several names and if he does not know some of the names or is not sure that this person committed this crime, he has to respond – NO. Due to the fact that according to Simas he does not know who the murderer is, it may be assumed that he will say NO to each option of the answer. Option 0 contains the name of a person

who certainly could not commit the murder (Salžiūnas and Kovalenko, 2008). Option 6 says “Someone else” and according to Y. Kholodny, E. Lewandovski and L. Lewandowski (2008) it should close the entire circle of suspects.

Possible results:

1. The polygraphist records the strongest psychophysiological response after the answer NO to the name Simas. There is a response, however, the polygraphist cannot make any conclusions. The psychophysiological response may be elicited because he is the murderer or only because of the subject's fear of polygraph (Ekman, 1992) (In this paragraph and further in the article other potential stimuli that could elicit a psychophysiological response are not considered (Salžiūnas, Kovalenko and Soshnikov, 2009).
2. The polygraphist records two strong psychophysiological responses after the answers NO to the name Simas and “someone else” or another one. The polygraphist may assume that the other person may be associated with the crime, however, it is completely unclear what was Simas' role in the crime (a perpetrator, an accomplice, a witness) due to the aforementioned reasons.
3. The polygraphist records the strongest psychophysiological response after the answer NO to any of the names with the exception of the subject's own name. If this is backed by responses to certain options of the answers to other questions, the polygraphist may conclude that it is the name of a potential murderer.
4. The polygraphist does not record any significant psychophysiological responses. It is very likely that Simas is neither a witness nor a perpetrator.

It is not possible to judge about Simas' role in this crime on the basis of the question-answer example and the analysis of responses demonstrated above. Therefore, we modified the answers to the question:

Who stabbed the victim with a knife?

0. Walter
1. Otto
2. Ivan
3. Peter
4. Robert
5. Arthur
6. Someone else

The name Simas was replaced with Robert, i.e. the answers do not contain the subject's name. After the polygraph testing, if the polygraphist records

the strongest response after the answer NO to option 6 – Someone else – the conclusion may be drawn that the crime was committed by the subject examined or a person whose name is not on the list. Undoubtedly, the final decision is made only when the results of the entire complex of polygraph testing questions are obtained (Salžiūnas and Kovalenko, 2008). When assessing the subject's psychophysiological responses one should not forget about the effect of waiting for a "dangerous" option of the answer which has been already discussed (Salžiūnas and Kovalenko, 2008). We suppose that when using the combination of both techniques of multiple-choice answers demonstrated above, more detailed information may be obtained about the person who committed the crime.

When we started applying the **PERPETRATOR IDENTIFICATION TACTICS**, we thought that we may face a problem when working with persons of low intellect, i.e. they might not understand the last option – Someone else. We had to examine a barely literate suspect of Roma origin from the rural area of the country. To our great joy, he understood the option of the answer and the tactics proved right.

PERPETRATOR ROLE IDENTIFICATION TACTICS. We prepared this tactics on the analogy of the classical SKY test (Abrams, 1989; Matte, 1997) and situational sequencing test (Javorski, 2006). The roles of a witness and a perpetrator are distinguished in these tests.

The application of this tactics is illustrated by the following example. The perpetrator or several perpetrators injured a person with a knife and the injured bled to death. Post-mortem experts usually identify the number of blows with a knife, yet very seldom due to certain reasons they are not successful in this. We suggest formulating two questions with the options of answers in the following sequence.

Do you know how many times the perpetrator (perpetrators) stabbed the victim with a knife?

0. 6 (six) times
1. 5 times
2. 4 times
3. 3 times
4. Twice
5. Once
6. Not a single time

How many times did you jab (stab) the victim with a knife?

0. 6 (six) times

1. 5 times
2. 4 times
3. 3 times
4. Twice
5. Once
6. Not a single time

The polygraphist reads out the questions to the suspect and when conducting polygraph examination gives the answers in succession and the suspect responds to them YES or NO.

Possible results

1. The polygraphist does not record any significant psychophysiological responses neither to the answers of the first question nor to the answers of the second question. It is highly probable that the subject under examination did not commit the crime and did not see how the crime was committed.
2. The polygraphist records the psychophysiological responses to the same answers of both questions, for example 4. It may be assumed (if it is proved by other questions) that the examined subject thinks or remembers that he delivered the number of blows indicated in these answers (twice according to the example). In such cases the examined subject nearly always responds YES to the sixth answer of the second question and after this answer the psychophysiological response is also recorded.
3. The polygraphist records the psychophysiological responses to one of the answers to the first question (to answers 1–5 in the example) and does not detect any reliable psychophysiological responses to the answers of the second question. If this is backed by further examination, the examined subject is a witness or an accomplice.
4. The polygraphist records the psychophysiological responses to the answers of both questions which are not the same (for example, answer 3 to the first question and answer 2 to the second question). In this case a deeper analysis is required. In the event when the crime was committed by several perpetrators, it may be identified how many blows with a knife each perpetrator delivered by analysing the responses to the answers. Sometimes the suspect vaguely remembers the event or does not remember how many times the victim was stabbed. Due to this reason, there may be discrepancies between the responses to the answers of the first and the second questions. Due to the same reason, the number of blows with a knife may not correspond to the

number of blows established during the post-mortem examination. There may be other reasons as well (Salžiūnas, Kovalenko and Soshnikov, 2009).

Both tactics broaden the possibilities for EKT test application and help criminal investigators to identify more circumstances of the crime. Such an explanation is easily understood and accepted by participants of legal proceedings – lawyers, prosecutors and judges.

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