Practical Polygraph: Managing the Respiration Sensors During the Polygraph Pretest Interview

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Respiration sensors are a rich and important source of information during polygraph testing. Standardized field practice requirements today include the use of two respiration sensors, scored together as a single component. Effective introduction and management of the respiration sensors during the polygraph pretest interview – including the explanation of the sensors and attachment of the sensors to the examinee – is an important aspect of a successful and effective polygraph exam.

Potential problems associated with the respiration sensors stem mainly from the fact that it is relatively easy for examinees to notice and voluntarily control their respiration activity during testing, resulting in potential distraction of attention away from the test stimuli. Respiration activity may also affect the quality of other polygraph measurements, and the occurrence of these potential problems may lead to data of suboptimal interpretable quality.

Polygraph examiners will first introduce and discuss the respiration sensors during early stages of a structured

or semi-structured pretest interview, prior to obtaining the informed consent of the examinee to undergo the polygraph procedure. Informed consent requires that a professional provide reasonable, correct and satisfactory information to an examinee, so that the examinee knows what they are consenting to. In other words, what will the examiner do to them and how might that affect them during and after the test. It is important that this information and explanation is provided before the examinee signs an informed consent form.

Informed consent does not require an examiner to educate the examinee about the name of the respiration sensor or the underlying technology, signal processing, or analytic methods. It should not be necessary, if the polygraph test is a scientific test, for the polygraph professional to go to great lengths to impress the examinee about prowess or professional competence. Similarly, it is not necessary to explain to the examinee the physics or mechanics of respiration (though professional examiners will want to be familiar with both the physiology and physics of respiration). In fact, excessive discussion of respiration during the pretest interview has been shown to be correlated with increased perceptions of problematic respiration activity during testing. For this reason, we suggest that examiners limit or forgo the use of the words "respiration" and "breathing" altogether, unless unavoidable. All that is necessary is to show or display the sensors to the examinee, and explain where and how they are attached to the examinee's body, along with a brief explanation of what they sensors do and the fact that they are non-restrictive.

For example:

These sensors are placed on your upper and lower body area. They monitor and record movement in your upper and lower body areas during the test. It is important that you sit still during the test. For example, keep your arms and feet still and look straight ahead so that you do not move your head and your body during the test. Please remember that having a successful test depends on two things: my ability to give you clear instructions, and your effort toward following those instructions. Do you have any questions about these sensors?

Attachment of the respiration sensors

Respiration sensors are generally attached one at a time, beginning with the lower sensor, with the examinee remaining seated. It makes no difference to the validity or effectiveness of the test if the sensor connections are placed on the right side or left side.

Standards of practice and strict rules are necessary where they affect or support the validity and effectiveness of the polygraph test. Where it does not affect the validity of the test or the ethics of the test, rules serve only to make professionals vulnerable to criticism with no benefit in return.

Respiration sensors have been shown to work well over clothing, and there is never any need to request an examinee to be in a state of undress. Polygraphs are conducted successfully in every geographical and climate zone and every season, including those in which heavier clothing is worn in colder seasons and colder climates. Of course, the polygraph testing environment must itself be of normal comfortable temperature. Casually dressed male examinees can often be asked to remove a jacket without any problem. However, it may be more appropriate to permit ranking officers to remain wearing a jacket that is part of a uniform. In this case, simply place the respiration sensors over the uniform jacket. Similarly, it may become socially awkward and unacceptable to ask female examinees to remove part of carefully selected ensemble such as a business suit or stylish jacket if removal of the article of clothing might produce a sensation or perception of reduction to a partially dressed state. Of course, heavy winter clothing can and should be removed during testing, as long as the examinee remains fully dressed for indoor activities.

It is important for the examiner to maintain professional boundaries while attaching the sensors, avoiding "bear-hugging", and avoiding asking the examinee to assume an awkward, compromising, uncomfortable or unusual position. At times, it may be useful to for an examiner to stand in front of the examinee and using himself or herself to demonstrate how to attach the respiration to oneself. Attaching the sensors from a position behind the examinee may make the examinee feel intimidated or uncomfortable. Examiners should practice attaching the sensors to persons of different physical size. Although the examiner will most often attach the sensors to the examinee, some examiners may also wish to practice and become familiar with how to instruct an examinee to attach the respiration sensors to themselves, if necessary. Additionally, examiners may want to ask the examinee to move the sensor to the center, once it is attached, rather than moving it themselves.

Discussion

Although most examinees will deny attempting to access information about the polygraph prior to the ex-

amination date, many may have, in fact, read information or have spoken to others about the test, including the sensors, test data, testing process and test questions. Examinees who have sought out information on the polygraph may attempt to voluntarily regulate their respiration activity under the believe that this may help them to have better results (e.g., people may believe that slow or controlled breading is associated with a low-stress or low-anxiety state, and may attempt to create or feign an appearance of tranquility in attempt to increase their chance of passing the test.)

Voluntary regulation of respiration activity is ill-advised. Studies have generally shown that attempts at countermeasures during polygraph testing have little effect on guilty examinees but can have adverse effects for innocent persons. Examiners whose goal is to conduct the polygraph test to a precise result will want to provide clear and concise instructions with a minimum of discussion on the topic of breathing or respiration. Some examiners choose to explain that the respiration sensors as activity or movements sensors. This is acceptable so long as the information is factual. For example: "these sensors monitor and record movement in your upper and lower body areas."

Some examinees may be concerned about the actual purpose of the respiration sensors, and some others may ask directly if their respiration pattern may affect the test result. It is advisable for examiners to answer these questions in a factual and neutral manner that neither exaggerates nor minimizes the actual purpose of the respiration sensor. Ideally, information and discussion during the early stage of the pretest interview will provide sufficient information to obtain the examinee's informed consent for testing and minimize the likelihood of remaining unanswered questions. It is preferable to instruct and discuss with the examinee what he or she should do to have a successful test - instead of discussing what not to do (e.g. do not think about your breathing).

Use of "tricks" such as using an unnecessarily high level of pressure in the cardio sensor or other methods to distract the examinee's attention away from his or her respiration is not advisable. This strategy, may achieve the objective of drawing attention away from respiration activity, but also diverts attention away from the test stimuli. Attempts at convincing the examinee that the respiration sensors do not measure respiration activity, or that respiration, will not affect the test result, is a hazardous strategy that will serve only to damage the exam-

iners rapport and credibility for those examinees who have already acquired information on the polygraph. Again, a factual and neutral explanation of the respiration sensors during the early stages of the polygraph pretest interview should serve to help the examinee to understand what to do in order to achieve a successful test result, and the potential consequences of not following instructions during testing.

Of course, some examinees are intent on attempts to disrupt the test as a strategy to either conceal the fact that they are being deceptive or in attempt to distort the polygraph test data to achieve a favorable result. In these cases, there may be nothing that will deter an examinee from a determined course of action. Effective explanation and management of the respiration sensors, in the form of clear information and simple instructions, will provide the professional polygraph examiner an opportunity better observe whether an examinee is capable of, and willing to cooperate during testing. For innocent and truthful individuals who desire to cooperate and produce favorable testing outcomes, skillful management of the respiration sensors can help to contribute to an effective rapport between an examiner and examinee. This will help the examinee to achieve and maintain the calm, relaxed, awake and alert psychological states that are known to be associated with more effective attention, concentration, cooperation, memory, comprehension, and communication.