

## **WHAT IS LVA TECHNOLOGY?**

LVA technology is based on a proprietary set of vocal parameters found, through field & academic research, to correlate with key human emotions and in various combinations to be able to identify deceptive intentions in “real life” scenarios. These vocal parameters were identified from a large repository of audio files captured in different languages and numerous life situations, from police interrogations, through contact centers to controlled experiments. Many of the parameters Nemesysco’s technology users are new to the world of phonetics, and focus on the uncontrolled and, yet, phonetically unexplained properties of the human voice.

LVA is a security-level technology designed to serve professional investigators in their line of work, by providing indications that further directs the investigation procedure to the relevant path. LVA analysis can be performed in real-time (using a microphone or on a telephone conversation) as well as off-line on previously recorded material. LVA-i system is using the LVA technology in a highly controlled manner using scripted conversations, which enables the system to “understand” what emotional reactions are expected in each part of the call (as well as which emotional reactions are not).

## **IN THE SIMPLEST WORDS, WHAT IS LVA?**

LVA-i is a professional voice analysis tool designed to meet the needs of organizations of any size in need for proper vetting and pre-employment veracity tests, as well as “Honesty maintenance” programs and periodical security evaluations.

## **IS LVA-i A "LIE-DETECTOR"?**

Professionals in the field of Truth Verification know there is no such thing as a real "Lie Detector", as lying is not associated with a single specific mental state, and human reactions are highly dependent on the test context. LVA-i is an emotion detector, identifying reactions in the tested party’s voice in response to pre-scripted carefully designed sets of questionnaires. Its output, the “Risk Level” detected per topic, is calculated based on plurality of indications surrounding the specific topic, which makes it stand out from the rest of the test. Such unique and intensive reactions typically indicate a problem that should be further explored by the interviewer.

## **CAN I COMPLETELY RELY ON THE "LVA-i" FINDINGS?**

LVA-i is an excellent decision-support tool, and in combination with your own judgment and common sense, can be of great assistance. However, like any automated system, it is not 100% accurate all the times, and errors may and will occur from time to time due to various circumstances, such as sudden background noises during the test, impaired hardware, unique mental states of the tested party or other errors. Therefore, it is important that you do NOT reach a decision based solely on the LVA-i report. Use LVA-i to identify problematic issues in a conversation that may need further exploration or clarification via other means.

## **HOW ACCURATE IS THE LVA-i?**

LVA-i accuracy is dependent upon several factors:

- First and foremost, the emotional involvement and jeopardy of the tested party with regard to what is being analyzed.
- Jokes and lies of minimal involvement will produce a very limited emotional reaction, and the calculation of risk will rarely show indications on such jokes.
- The quality of the input and signal to noise ratio. High noise levels, bad phone connection, too low or too high input volumes (beyond the sound card's ability to record) will produce erroneous results.
- The test settings and possible uncontrolled interferences or environmental distractions.
- "Border line" personality issues or clinical conditions of the tested party may cause strange or inaccurate results.

Essentially, if the quality of the voice is reasonably good and the operation and preparation is proper, the emotional analysis component will be extremely accurate. If the intention to deceive or conceal the truth is genuine and poses jeopardy on the tested party, then the Risk Calculations will also be very accurate.

**IS THE VOICE ANALYSIS TECHNOLOGY LANGUAGE-DEPENDENT?**

No. LVA technology does not interpret the words that are spoken. Rather, it looks for unique anomalies in the vocal waveform of the person speaking. These anomalies are caused by the brain as a response to a "Stimuli" (emotions and stress) that are experienced when a person knowingly provides false information. These phenomena occur regardless of the language or dialect spoken. You may find that individuals from different cultures may show more or less excitement or stress in certain situations. However, internal reactions associated with honesty and deception are universally the same.

**IN WHAT LANGUAGES IS LVA-i AVAILABLE TODAY?**

LVA-i is currently available in English, Spanish, French, Portuguese, German, Dutch, Afrikaans, Zulu, Chinese, Russian, Hebrew – and more languages are added as needed. If the language you need is not yet available, we will gladly work with you to make this version to meet your needs.