



Designation: E 2035 – 03

## Standard Terminology Relating to Forensic Psychophysiology<sup>1</sup>

This standard is issued under the fixed designation E 2035; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This is a compilation of terms and corresponding definitions used in forensic psychophysiology. Legal or scientific terms that generally are understood or defined adequately in other readily available sources may not be included.

1.2 A definition is a single sentence with additional information included in notes. It is reviewed every five years, and the year of the last review or revision is appended.

1.3 Definitions identical to those published by another standards organization or ASTM committee are identified with the abbreviation of the name of the organization or the identifying document and ASTM committee; for example, ASME is the American Society of Mechanical Engineering.

1.4 Definitions of terms specific to a particular field are identified with an abbreviation.

### 2. Significance and Use

2.1 These terms have particular application to the scientific discipline of forensic psychophysiology. In addition, a hierarchy of sources of definitions are used in the development of this terminology. The hierarchy is as follows: Webster's New World Dictionary, Third College Edition; technical dictionaries; and, the Compilation of ASTM Standard Definitions. The subcommittee developed a suitable definition after all of the sources in the hierarchy are found wanting.

### 3. Terminology

#### 3.1 Terms and Definitions:

**artifact**, *n*—a change in a PDD tracing that is not attributable to a review test question, stimulus, recovery, or homeostasis.

**cardiovascular tracing**, *n*—a display of physiological patterns of the subject's relative blood volume and pulse rate. The cardiograph component records this activity.

**comparison question**, *n*—type of question, the physiological responses from which are compared to those generated by the relevant questions.

**counterintelligence-scope polygraph (CSP)**, *n*—screening examination administered by the Federal Government on individuals with sensitive security clearances to detect and deter espionage, security breaches, sabotage, or other acts against the government. Sometimes referred to as a *loyalty* examination.

**Daubert v. Merrell Dow Pharmaceuticals, Inc.**, *n*—although not a PDD case, the Daubert case set aside the landmark Frye rule's "general acceptability" provisions in favor of the Federal Rules of Evidence. This paved the way for the admissibility of PDD evidence in most jurisdictions. See: Daubert v. Merrell Dow Pharmaceuticals, Inc. (1992), 509 U. S. 579, 125 1. Ed 2d 469; United States v. Frye 54 App D.C. 46, 293 F 1013.

**deception indicated (DI)**, *n*—deception indicated is a conventional term for a PDD outcome. A decision of DI means that the physiological data are stable and interpretable and that the evaluation criteria used by the examiner concluded that the examinee was not being completely truthful to the relevant issue. Deception indicated corresponds to the term "Significant Physiological Responses," or SPR.

**electrodermal tracing**, *n*—the display of physiological patterns of either skin resistance or skin conductance obtained through exosomatic recording with a galvanograph component.

**false negative**, *n*—misclassification of a deceptive person as truthful.

**false positive**, *n*—misclassification of a truthful person as deceptive.

**forensic psychophysiology**, *n*—the scientific discipline dealing with the relationship and applications of PDD tests within the legal system. It encompasses the academic discipline that provides the student, the practitioner, and the researcher with the theoretical and applied psychological, physiological, and psychophysiological fundamentals for a thorough understanding of PDD tests, and the skills and qualifications for conducting PDD examinations. The modifier "forensic" delineates and delimits this discipline from the broader discipline of psychophysiology.

**homeostasis**, *n*—a complex interactive regulatory system by which the body strives to maintain a state of internal equilibrium.

<sup>1</sup> This terminology standard is under the jurisdiction of ASTM Committee E52 on Forensic Psychophysiology and is the direct responsibility of Subcommittee E52.06 on Terminology.

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