

This Week's Citation Classic

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Zuckerman M. The development of an affect adjective check list for the measurement of anxiety. *J. Consult. Psychol.* **24**:457-62, 1960.
[Institute of Psychiatric Research, Indianapolis, IN]

A test was developed to measure transient 'states' of anxiety, and another form was constructed to measure general levels of the affect (trait anxiety). The reliabilities of both forms were assessed and the sensitivity of the state form to the stress of classroom examinations was demonstrated. [The *Social Sciences Citation Index*[®] (SSCI[™]) indicates that this paper has been cited over 160 times since 1966.]

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"In 1958 John I. Nurnberger, then director of the Institute of Psychiatric Research of the Indiana University Medical Center, asked me for a test that could be used to measure changes in anxiety. The test was needed for various studies being conducted at the Institute such as hypnotic induction of anxiety, changes during pregnancy, and changes produced by new tranquilizing drugs.

"The standard objective tests of anxiety being used then were designed to measure anxiety as a general trait. They asked subjects how they 'often' or 'usually' felt rather than how they felt at a given time. Such tests were bound to be insensitive to temporary changes in mood induced by suggestion or transient stress. Investigators doing experiments usually resorted to non-standardized, ad hoc, one-item self-ratings of dubious reliability and validity.

"I decided to develop a test which could be used to measure anxiety either as a state, a

trait, or something intermediate such as a daily, weekly, or monthly level. The adjective check list lent itself to this kind of temporal specificity since the same items could be used for trait or state by a simple alteration of instructions: 'how do you generally feel'; or 'how do you feel now' or 'today.'

"This distinction between 'states' and 'traits' was first clearly formulated in this paper and elaborated in later work by myself and Charles D. Spielberger.^{1,2}

"The test was developed using the empirical method of item selection. Items that anxious patients responded to differently than normals, and that also showed changes in frequency of checking by normals in hypnotically suggested anxiety states, were incorporated in the test scale.

"The sensitivity of the test was demonstrated by giving it to a class of students on examination days, just prior to the exams, as well as on non-examination class sessions. Scores predictably rose prior to examinations and dropped on non-examination class days. The amount of increase on exam days was related to the grades students received on the exams.

"The test provided a standardized self-report method for assessing state anxiety which was widely employed by many investigators. A few years later we developed similar trait and state scales for depression and hostility³ and these, together with the anxiety scale, were incorporated in a published test: The Multiple Affect Adjective Check-List.

"The frequent citation of this first study is not due solely to the wide utilization of this new method in research. The distinction between traits and states in assessment of emotions and motives was an idea whose time had arrived."

1. **Spielberger C D.** Theory and research on anxiety. (Spielberger C D, ed.) *Anxiety and behavior*. New York: Academic Press, 1966. p. 3-20.
2. **Zuckerman M.** The development of an affect adjectives check list for the measurement of anxiety. *J. Consult. Psychol.* **24**:457-62, 1960.
3. **Zuckerman M & Lubin B.** *Manual for the multiple affect adjective check list*. San Diego, CA: Educational and Industrial Testing Service, 1965. 24 p.