

**Thayer R E.** Measurement of activation through self-report.  
*Psychol. Rep.* 20:663-78, 1967.  
[California State College, Long Beach, CA]

Factor analyses involving self-ratings of activation states have yielded four factors, General Activation, Deactivation-Sleep, High Activation, and General Deactivation, that correlate substantially with physiological variables. Reliably predicted from self-ratings are diurnal sleep-wake cycles, day to evening variations, and differences in activation due to college exams. Theoretical issues relating to function and measurement of activation states are discussed. [The *Social Sciences Citation Index*® indicates that this paper, cited in over 150 publications, is among the 12 most cited for this journal.]

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"This article was originally rejected for publication by a major psychology journal. The editor explained that even though the article was methodologically sound, it was not of sufficient interest for publication. Fortunately, that judgment proved incorrect. The article has now been reprinted in full and in part in a variety of books and journals, and its rate of citation continues to be high almost two decades after its original publication.

"I believe that these ideas have retained their importance, not only for psychologists, but also for a wider group of biological and behavioral scientists. Their importance arises from the hard evidence provided that psychophysiological activation or arousal states can be assessed at a number of levels of function; that is, arousal states that result in cardiovascular, respiratory, and skeletal-muscular changes also are identifiable through conscious awareness, and people can make meaningful self-ratings of these

states. In fact, a point originally suggested in the article, that self-ratings may be better indications of global arousal states than are individual physiological measures, has now been supported by a wide variety of research in my laboratory and in others.<sup>1</sup> In this age of electronic sophistication of measurement, there is some satisfaction in the knowledge that it is still valuable to ask people how they feel.

"This article provided the theoretical measurement base (Activation-Deactivation Adjective Check List [AD ACL]) for evaluating an underlying dimension of behavior relating to intensity. In addition to being greatly impressed by the biological analyses of such scientists as Walter Cannon, Donald Hebb, Elizabeth Duffy, and Robert Malmö, I came to a personal understanding of the potential importance of the intensity continuum through self-observations that most days had predictable high and low periods. In some relationship to the elemental sleep-wakefulness cycle, I noted that my feelings of alertness and energy were high at times and low at others irrespective of situations and events. As an inveterate self-observer, I also noted that, among common emotions, mild states were related to strong reactions by an intensity continuum, and these differences seemed to affect all manner of behaviors. There was a predictability of response whatever the intense emotion. These initial self-observations have now been supported with a great deal of published research employing the AD ACL.

"The self-rating scales provided in the article have been translated into many foreign languages and continue to be widely used. However, as research progressed, it became increasingly clear that the original conceptualization of a unidimensional activation or arousal continuum had to be modified to a multidimensional model.<sup>2,3</sup> I believe that this model, which outlines a complex relationship between a general arousal dimension and a somewhat different type of preparatory-emergency arousal, is useful in accounting for a variety of everyday motivational circumstances relating to feelings of energy and tension."

1. **Thayer R E.** Activation states as assessed by verbal report and four psychophysiological variables. *Psychophysiology* 7:86-94, 1970. (Cited 70 times.)
2. -----, Toward a psychological theory of multidimensional activation (arousal). *Motiv. Emotion* 2:1-34, 1978. (Cited 30 times.)
3. -----, Factor analytic and reliability studies on the Activation-Deactivation Adjective Check List. *Psychol. Rep.* 42:747-56, 1978. (Cited 20 times.)