

## COMMENTARIES

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# On a Nomenclature for Emotional Intelligence Research

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In this response to Cherniss (2010), I further clarify the distinction between a definition of a psychological construct and a model of a psychological construct. I recommend that *emotional intelligence* (EI) be defined as the ability to purposively adapt, shape, and select environments through the use of emotionally relevant processes. I also argue that Cherniss' proposed emotional–social competencies (ESC) is of questionable scientific and practical utility because it is too broad to realistically afford opportunities to develop meaningful theories of behavior or cognition, as well as too broad to realistically obtain the desired internal consistency reliability level for comprehensive application in industry. Next, I introduce the concepts of maximal EI performance and typical EI performance to the conceptualization of EI, a distinction that I argue is preferable to the commonly made “ability-based model” and “mixed-model” distinction. Finally, I describe a multimethod approach to the assessment of EI.

### Psychological Constructs

Katzell (1957) defined a *construct* as a “postulated attribute which is not operationally defined and for which only fragmentary or imperfect criteria exist.” Properly

defined constructs in psychology tend to be relatively abstract and general in nature (Bacharach, 1989; Spector, 1992). Consequently, psychological construct definitions should not predicate the number and nature of behavioral and cognitive dimensions that constitute the model associated with the construct nor should they imply the measurement method that may be used to generate numerical quantities to represent individual differences across the continuum of the construct of interest.

Based on the work of Buss (1961), Spielberg and Reheiser (2003) submitted the following exemplary definition of a psychological construct: “Aggression as a psychological construct is defined as destructive or punitive behavior directed toward other persons or objects in the environment” (p. 76). In contrast to the Spielberg and Reheiser definition of a psychological construct, consider the Mayer, Salovey, and Caruso (2000) definition of the construct of EI endorsed by Cherniss: “the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others” (p. 396). The Cherniss-endorsed definition of EI is not very abstract or general because it describes precisely the number and nature of dimensions of EI measured by the Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, Caruso, & Sitarenios, 2003). Consequently, the endorsed definition of EI by Cherniss may not be considered

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appropriate, based on the nomenclature elucidated in this commentary.

Other good definitions of psychological constructs include Spearman's (1927) and Sternberg and O'Hara's (1999) definitions of intelligence. Spearman defined *intelligence* abstractly as "the eduction of relations and correlates" (p. 165). Less abstractly, Sternberg and O'Hara defined *intelligence* as "the ability to purposively adapt to, shape, and select environments" (p. 251). Sternberg and O'Hara's definition of intelligence seems just as appropriately applied to EI as it is to the more conventional conceptualizations of intelligence. Of course, Sternberg and O'Hara's definition is so general that, although it applies to virtually any intelligence, it fails to distinguish between intelligences. Consequently, for the purposes of distinguishing EI from other intelligences, EI could be more precisely defined as the ability to purposively adapt, shape, and select environments through the use of emotionally relevant processes.

### **Hypothesized Models of Psychological Constructs**

Although a good definition of a psychological construct should be described in relatively general terms, a model of a psychological construct describes the nature and number of dimensions associated with the construct of interest. The specification of a model hypothesized to be representative of a psychological construct should be viewed as an important intermediary step toward the operationalization of a construct. In contrast to the definition of a psychological construct, a hypothesized model representative of a construct can be tested empirically (e.g., confirmatory factor analysis).

Cherniss contends that there is now a respectable amount of consensus on a model of EI (actually, Cherniss said the definition of EI, but see above). This may be considered a remarkable achievement, given that EI has been researched for approximately only 20 years. By contrast, the area of personality, despite its much longer history, is still subject to debates about the

number and nature of its dimensions. In my opinion, the relatively rapid progress and popularity of EI has been achieved, in part, because the construct and corresponding model are relatively narrow, which should be considered one of its attractive qualities (Gignac, Jang, & Bates, 2009). I would predict that an ESC construct of the kind advocated by Cherniss will never result in a clearly defined model for which there is any appreciable consensus. If a representative model of a construct cannot be determined, then the prospect of developing insightful theories of behavior and cognition relevant to the construct of interest seems highly unlikely.

### **Measurement for Prediction in Practice**

In contrast to the unlikelihood of facilitating the development of theoretical contributions to the literature, it is conceivable that a measure based on a model of ESC may predict performance more substantially than a measure of EI, as alluded to by Cherniss. However, such results would likely have little implication for industrial–organizational (I–O) practitioners because of the emphasis they should be placing upon test score reliability. If a model of a construct incorporates an amalgamation of diverse trait- and competency-related dimensions, such as the ESC model proposed by Cherniss, then it will very likely do so at the expense of internal consistency reliability. In fact, a survey of the literature does not reveal any mixed-model or ESC-like assessments that have been shown to be associated with an internal consistency reliability of .95 or higher<sup>1</sup>: the desired level specified by Nunnally and Bernstein (1994) for applied settings. Neither the Bar-On EQ-i nor the ECI provide total score reliability estimates within their technical manuals, presumably

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1. It should be noted that estimates of internal consistency reliability reported in the literature are typically over estimates because they violate the assumption of no correlated residuals associated with Cronbach's alpha (see Gignac, Bates, & Yang, 2007).

because total score interpretations are not meaningful, as some of the subscales are relatively disparate in nature. In contrast to the ESC approach, the more construct “pure” EI approach endorsed by Genos EI and the MSCEIT, for example, does allow for the meaningful combination of subscale scores into a total EI score. Perhaps not coincidentally, the Genos EI total score has been shown to be associated with an internal consistency reliability equal to .96 (Gignac, 2008). An ESC-type assessment will probably not be afforded such a possibility as it is too broad in scope.

Although the maximum prediction of a dependent variable such as job performance may be considered interesting and potentially consequential, researchers of constructs such as EI should not be fixated upon a single dependent variable. Theoretically, EI should be expected to have implications on a wide variety of life’s experiences.

Sackett, Zedeck, and Fogli (1988) made several important contributions to the concepts of maximal and typical performance. First, unlike Cronbach (1960), they specifically applied the concepts of maximal and typical performance to job performance. Secondly, applied to the context of job performance, higher levels of typical performance could now be considered legitimately desirable. That is, the regularity with which one performs on the job may be argued to be a desirable attribute. In fact, higher levels of typical job performance may be regarded as more important than maximal job performance, as most indicators of job performance tend to be based on data points collected across time (e.g., average monthly sales). Cherniss’ proposition of ESC, which incorporates facets of behavior as diverse as emotional expression, optimism, and delay of gratification, may be better conceptualized as a quasi or incomplete theoretical model of job performance or achievement rather than a construct in its own right. Although the constructs of achievement and job performance may be important areas within psychology, they should not be the central concern to the development of any other construct.

## Maximal EI Performance Versus Typical EI Performance

A relevant concept missing from the Cherniss article, and the broader EI literature more generally, pertains to whether a measure of EI is focused upon “maximal performance” or “typical performance.” Such a distinction applied to the area of EI may be considered particularly useful, as there is already a rich literature of theoretical and empirical research upon which the area of EI can draw (see, e.g., Klehe, Anderson, & Viswesvaran, 2007). For example, the distinction between maximal and typical performances predicts the absence of a substantial correlation between self-report measures of EI and the MSCEIT.

Cronbach (1960) broadly classified psychometric tests as indicators of maximal and typical performances.<sup>2</sup> Maximal performance test scores represent the highest level of ability that can be manifested by an individual at a particular time. By contrast, typical performance test scores represent how an individual is most likely to behave, think, or feel across a broad class of situations. Cronbach stated that higher scores on maximal performance tests are considered desirable, whereas there was no such notion associated with typical performance scores. Within Cronbach’s conceptualization, commonly regarded examples of maximal performance indicators include intelligence tests and achievement tests. Examples of typical performance indicators include personality inventories and attitude surveys.

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2. Two clarifications may be useful, here. First, Cronbach (1960) used the term “maximum performance” not “maximal performance.” However, as the word *typical* is an adjective that can modify the noun *performance*, it may be considered more approximate to use the adjective *maximal* in the same way (the word *maximum* is a noun). Secondly, Cronbach appreciated the fact that a given psychometric test could yield both maximal performance scores and typical performance scores (e.g., Porteus Maze). Thus, it may be more accurate to state that Cronbach classified psychometric scores (not tests) as indicators of maximal performance or typical performance.

This highlighted section should be read after the last paragraph of this page.

Cherniss argues that a problem with the multiple-definitions model of EI is that the models are so empirically independent from each other ( $r = .20$  to  $.30$ , between the MSCEIT and the Bar-On EQ-i) that the concept of EI may potentially become meaningless. However, based on research in the area of maximal and typical performances, relatively weak correlations are to be expected. For example, Sackett, Zedeck, and Fogli estimated correlations of  $r = .14$  and  $r = .32$  between maximal and typical performances in two large samples of cashiers engaged in the processing of supermarket items, thus the weak correlations between the MSCEIT (an inventory designed to measure maximal EI performance) and the Bar-On EQ-i (an inventory that shares some communalities with a measure of typical EI performance<sup>3</sup>). This commentary is not arguing in favor of several models of EI (i.e., the number and nature of dimensions associated with EI). Instead, it is arguing for the adoption of two largely distinct perspectives, maximal EI performance and typical EI performance. Doing so helps support the expectation of a modest convergence between measures such as the MSCEIT and the Bar-On EQ-i. In addition, the adoption of the maximal–typical perspective in favor of the more common “ability-based model” and “mixed-model” distinction in the EI literature is attractive because it facilitates the classification of an inventory such as Genos EI. That is, Genos EI is neither a mixed-model measure nor an ability-based model measure. Instead, it was specifically designed to be a measure of typical EI performance (Gignac, 2008; Palmer, Stough, Harmer, & Gignac, 2009).

### Modes of Measurement

Cherniss does not offer a specific delineation of possible modes of measurement of EI, instead three common types of EI

measures currently in the literature are described and evaluated. The three types of measures are (a) ability measures (e.g., MSCEIT), (b) self-report measures (SREIT, Bar-On EQ-i), and (c) alternative measures (i.e., multirater, ECI, Genos EI). However, in light of the maximal EI performance and typical EI performance distinction, a more appropriate mode of measurement classification, may be (a) task-oriented, (b) self-report; (c) observer-report, and (d) physiological. Based on this mode of measurement classification, any four of the methods could, theoretically, be used to develop instruments to measure maximal EI performance or typical EI performance.

Cherniss suggests that the observer-report method of EI assessment appeared to be promising, as it did not rely upon an individual's self-perceptions. An additional reason why the observer-report method may be considered attractive is that it more directly satisfies Sackett et al.'s (1988) criteria for typical performance measurement: (a) the individual is not aware of the evaluation, (b) the individual is not consciously attempting to perform at his or her highest level, and (c) the measurement of performance takes places over a long period of time. Although the third criterion may be satisfied specifically in some cases (repeated observer ratings over time), a typical EI measure can be constructed in such a way that respondents are instructed to consider the target individuals, regular behavior over time rather than any specific occasion.

Interestingly, both self-report and observer-report scores of typical EI performance support the same model of EI (Gignac, in press), and self-observer scores converge to a moderate degree (Gignac, 2010). Furthermore, both self-report and observer-report scores appear to be associated with predictive validity (e.g., Gignac, 2008; Gignac, Harmer, Jennings, & Palmer, in press). Such results correspond well with the broader typical performance literature. For example, Jaramillo, Carrillat, and Locander (2005) reported that both self-rated job performance and supervisor-rated job performance correlated with objectively

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3. The Bar-On EQ-i may be considered to measure a combination of a typical EI performance, personality attributes, and thinking styles because it incorporates several subscales outside the scope of the dimensions of EI recognized by Cherniss.

measured job performance. Based on my own multiple regression analysis of the Jaramillo et al. (2005) correlation matrix, both self-reported job performance and supervisor-reported job performance were associated with statistically significant standardized beta weights and semi-partial correlations as predictors of task-oriented typical performance. These findings help underscore the importance of a multi-method approach to the assessment of a psychological construct, including maximal and typical EI performances.

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