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COMMENTARIES

Remaining Issues in Emotional Intelligence Research: Construct Overlap, Method Artifacts, and Lack of Incremental Validity

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The article by Cherniss (2010) represents an overdue examination and discussion of some of the core problems in and potential contributions of the study of emotional intelligence (EI). Although there is much to like about this article as an assessment of the state of field in EI research, we feel that specific limitations in research concerning the relationship between emotion-based constructs and important outcomes such as leadership and performance need to be more fully addressed. Further, we are skeptical of using emotional–social competencies (ESCs) as a possible answer to the numerous problems in the field of EI. Consequently, we raise critical issues regarding applied EI research and offer possible suggestions for the future of the field.

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Prior Research Relating EI to Performance and Leadership

In an oft-cited meta-analytic review, Van Rooy and Viswesvaran (2004) found that EI showed a significant relationship to academic and job-related performance outcomes. A recent meta-analytic review by Harms and Credé (2010) also found a significant relationship between measures of EI and transformational leadership. However, the Harms and Credé meta-analysis also revealed a potential concern with the applied EI literature as a whole. Although there was an overall effect for the relationship between EI and transformational leadership, the analyses also revealed that ratings source was an important moderator of that relationship. When ratings of EI and leadership both came from the same source (e.g., both were self-ratings), the relationship was substantial. When ratings of EI and leadership came from two sources (e.g., self-ratings of EI and follower ratings of leadership), the relationship between the two constructs nearly disappeared. As the substantial majority of research concerning the relationship between leadership and EI has used single-source data, this previously undiscovered common method

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effect has resulted in a false impression by many researchers in the leadership field that EI was substantially related to effective leadership.[1] Consequently, a more realistic appraisal of the relationship between EI and leadership would be that there is, at best, a small relationship when other factors are not taken into account.

The Predictive Validity of EI Beyond the Effects of Cognitive Ability and the Big Five

Despite the frequently voiced concerns that EI may not explain variance in important criteria (e.g., work performance and academic performance) over and above the variance explained by scores on measures of general cognitive ability and Big Five personality traits (e.g., Antonakis, 2004; Schulte, Ree, & Carretta, 2004), very few authors have examined this issue empirically. Indeed, our searches of the literature revealed only six articles in which the authors either explicitly examined the incremental validity of EI scores over measures of both cognitive ability and Big Five personality traits in predicting either academic or work performance, or presented data in a manner that allowed examination of this issue. Not one of these six articles (Barchard, 2003; Newsome, Day, & Catano, 2000; O'Connor & Little, 2003; Rode, Arthaud-Day, Mooney, Near, & Baldwin, 2008; Rode et al., 2007; Rossen & Kranzler, 2009) showed a significant contribution for EI in the prediction of performance after controlling for both cognitive ability and the Big Five.

Given the relative paucity of information regarding the incremental validity of EI constructs over Big Five traits and cognitive ability, we also compiled an overall correlation matrix for the relationships among the Big Five traits, general cognitive ability, EI, and work performance by using separate meta-analytic estimates from a variety of published meta-analysis. Specifically, we relied on the following sources: correlations of EI with performance, cognitive ability, and Big Five dimensions were obtained from Van Rooy and Viswesvaran (2004); correlations of Big Five dimensions with performance were obtained from Barrick, Mount, and Judge (2001); correlations among Big Five dimensions were obtained from Mount, Barrick, Scullen, and Rounds (2005); and correlations of Big Five dimensions with cognitive ability were obtained from Ackermann and Heggested (1997). We also constructed two alternate meta-analytic correlation matrixes: one based on correlations involving ability-based measures of EI and the other based on correlations involving trait-based measures of EI. Correlations for these alternate matrixes were based on the studies noted above and those from Van Rooy and Viswesvaran (2005).

The meta-analytic correlation matrixes were used to conduct hierarchical regression analyses in which the Big Five variables and general cognitive ability are entered first, followed by EI. The usual caveats for conducting analyses from separately obtained meta-analytic estimates of relationships apply to this analysis (see Becker and Schram [1994] for a discussion), but the findings at a minimum serve to illustrate the incremental validity problem.

For correlations involving the overall EI construct, EI explained almost no incremental variance in performance ($\Delta R = .00$). Findings were identical when considering only cases involving an ability-based measure of EI, with EI explaining no incremental variance in performance ($\Delta R = .00$). Trait-based measures of EI explained small

1. It should also be noted that no measure of EI, trait based or ability based, performed well when tested using multisource methods. Scores on ability-based measures such as the Mayer–Salovey–Caruso Emotional Intelligence Test (MSCEIT), which have been thought to be the most resistant to rating effects, showed the smallest relationship with transformational leadership. It could be argued that the finding that ability-based measures of EI are more weakly related to outcomes than trait-based measures supports Cherniss's argument that higher EI leads to greater ESCs, which in turn predict positive outcomes. Future research concerning the predictive power of EI and ESCs should test this proposed mediation model.

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amounts of incremental variance ($\Delta R = .011$, $\Delta R^2 = .014$) in work performance.

Utilizing the meta-analytic matrixes generated for assessing the incremental validity of EI measures for predicting job performance and that of Harms and Credé (2010) and Bono and Judge (2004), we also created a matrix to address whether EI measures would add incremental variance above and beyond measures of the Big Five personality traits when ratings of leadership and the ratings of personality and EI did not come from the same source. The results for the relationship to leadership were strikingly similar to those found for performance outcomes. Even without controlling for cognitive ability (because of the lack of an available meta-analytic estimate of the leadership–cognitive ability relationship) EI explained no unique variance in leadership after controlling for Big Five traits.

Personality Beyond and Beneath the Big Five

The construct overlap issues surrounding EI, ESC, and personality traits along with the general lack of evidence that EI predicts outcomes beyond Big Five traits and cognitive ability raise two further issues that are important for future research in this area to take into account. The first is that there is a widespread tendency among researchers to believe that collecting data on a short measure of the Big Five constitutes accounting for "personality" as a whole, and that showing incremental validity beyond the Big Five constitutes achieving a magical threshold of uniqueness and that what they are measuring is not accounted for in current personality models. However, before one can make the claim that a measure predicts any outcome beyond the effects of "personality," one must take into account all aspects of personality, not just traits. Current models of personality such as the neo-socioanalytic model (Roberts, Harms, Smith, Wood, & Webb, 2006) argue that personality also consists of motives, abilities, interests, goals, values, attachment styles, and life narratives and that these constructs are not subsumed under Big Five traits. Showing incremental validity beyond the Big Five personality traits constitutes an important first step, but it does not constitute a final, crucial threshold of incremental validity for new constructs or measures.

The second issue is one that Cherniss (2010) raises in his review about EI. That is, that proofs of validity seem to come from measuring constructs that have existed for a long time and are simply being relabeled and recategorized. For example, one of the proposed measures of ESC, the Trait Emotional Intelligence Questionnaire (Mikolajczak, Luminet, Leroy, & Roy, 2007), makes use of measures of assertiveness, social competence, self-confidence, stress management, and impulsivity among other things. Most, if not all, of these constructs are firmly embedded in and well-accounted for by well-designed measures of personality traits such as the Hogan Personality Inventory (Hogan & Hogan, 1992) and the Multidimensional Personality Questionnaire (Tellegen & Waller, 2008). The substantial relationships observed between these ESC and trait-based EI measures, and personality inventories, bears this out. It therefore appears that the predictive validity of ESC or EI measures may be accounted for in large part by the degree to which they assess subfacets of higher-order traits relevant to the outcomes being predicted. For example, Cherniss (2010) relates that two studies of self-discipline showed them to be significant predictors of academic performance and then criticizes Landy (2005) for not taking them into account in a review of studies of "social intelligence." Given that self-control (or impulse control) is widely regarded as a major subfacet of conscientiousness (Roberts, Chernyshenko, Stark, & Goldberg, 2005) and that numerous studies have linked Conscientiousness with academic performance, that there is a link between a facet of Conscientiousness and academic performance is hardly news. Moreover, it would seem that Landy made the correct decision when deciding to exclude these studies from his analysis.

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This example raises another substantial issue regarding the concept of ESCs. If competencies are simply defined by whether or not they relate to important outcomes and emotional competencies are simply those competencies linked to the experience or perception of emotions, could any characteristic with an emotional component be described as an ESC? For example, there is a substantial emerging literature linking self-conscious emotions such as guilt and shame to trait Conscientiousness (for a review see Roberts, Jackson, Fayard, Edmonds, & Meints, 2009). In this literature, it appears as though emotions may be construed as either a driver of conscientious behavior or simply as a component of Conscientiousness itself. Given the substantial relationship between Conscientiousness and outcomes such as job performance (Barrick & Mount, 1991), academic performance (e.g., Lievens, Coetsier, De Fruyt, & De Maeseneer, 2002), and leadership (Bono & Judge, 2004), would Conscientiousness fit the definition of an ESC? And if so, what characteristics would not? It would seem that the introduction of ESCs as a concept may simply result in the same criticisms leveled against EI in the past (Locke, 2005; Mayer, Salovey, & Caruso, 2008): that ESCs are overinclusive and atheoretical.

Conclusions

Although there is much to admire in Cherniss's (2010) review of EI literature, we feel that his efforts have fallen short of what is necessary to put the house of EI back in order. Recent research has demonstrated that EI measures simply do not predict important outcomes very well. This lack of predictive power becomes even more pronounced when well-designed measures of personality and cognitive ability are taken into account. Although it may seem that the addition of a more proximal predictor (ESCs) may help solve the problem of distal measures (EI) failing to show significant effects, the conceptualization of ESC leaves much to be desired.

That said, the future of research on EI is not completely bleak. In the future, it is possible that better assessment tools of EI may be developed. Another area of improvement for future research would be to focus on study design. To date, poorly designed, small sample-size studies appear to be the norm rather the exception, and proper validation studies are almost completely absent. If the field is going to gain any credibility in the future, this will need to change. One final point to consider in future research would be to have a greater awareness of the fields of personality and ability research. It appears that a great deal of construct confusion has been caused by a simple lack of understanding or awareness of the structure and breadth of these fields and the measurement tools used to assess them. These are simple challenges to overcome but necessary. Consequently, we are optimistic that research in this area will continue and that the ongoing debate over EI will continue to clarify, refine, and strengthen the empirical basis of this field.

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