

# Personality Measures in Personnel Selection: Some new contributions

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**With the increasing use of personality, several measurement issues have been raised. The papers included in the special section of this journal, across three issues, address some of these concerns. In this post-script, we summarize some of the major themes and conclusions that appear across papers published in the special issue. Questions around the magnitudes of validity coefficients associated with personality measures, the efforts to enhance the usefulness of personality assessments, the strategies on administering, scoring and analyzing personality tests, etc., are addressed. Promising directions for future research are delineated.**

## 1. Personality measures in personnel selection: some new contributions

The use of personality variables in explaining organizational behavior has increased over the past decade (George, 1992; Hogan, Hogan, & Roberts, 1996; Hough, Eaton, Dunnette, Kamp, & McCloy, 1990; Hough & Ones, 2001; Hough & Schneider, 1996; Ones, Viswesvaran, & Dilchert, 2005). Yet, some concerns have been raised about the use of such non-cognitive tests in personnel selection (Dilchert, Ones, Viswesvaran, & Deller, 2006): the magnitude of the validity coefficients has been derided as being too low as to be of much practical use (e.g., Morgeson *et al.*, in press). Concerns of faking in high-stakes assessments have been repeatedly raised. Suggestions have been made to use alternate approaches in assessing person-

ality, including using conditional reasoning measures (LeBreton, Barksdale, Robin, & James, 2007), elaboration of self-reported responses as means of reducing faking (Schmitt & Kuncze, 2002), using forced-choice item formats (Heggstad, Morrison, Reeve, & McCloy, 2006), etc. The set of papers in this special issue on personality at work were compiled to advance our understanding around using personality measures in selection contexts.

A brief background on this special issue is warranted here. In the spring of 2005, Jürgen Deller and Deniz Ones hosted an international symposium on 'Personality at Work' with funding from the Volkswagen Foundation. This symposium generated ideas that we felt should be developed and disseminated further. Therefore, contributors to the symposium, and leading researchers in the field of personnel selection and personality were contacted to contribute papers for a special issue that was to be published in three installments (March 2007, June 2007, September 2007) in the *International Journal of Selection and Assessment*. The

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submissions from these sources were supplemented by papers from regular submissions also relevant to the personality at work theme. In this overview post-script, we draw out some common themes and issues across this set of articles appearing in the special issue.

## 2. The magnitudes of the validity coefficients

Barrick and Mount (1991) meta-analytically summarized the validity of personality variables organized in terms of the Big Five factors of personality and concluded that personality variables, particularly conscientiousness measures, have useful levels of criterion-related validity to warrant their continued use in personnel selection. Subsequent meta-analyses confirmed this general conclusion (e.g., Tett, Jackson, & Rothstein, 1991; Salgado, 1997) with additional analyses and new samples. Barrick and Mount (1991) had concluded that conscientiousness, one of the five factors, had generalizable validities across jobs and other factors of the Big Five had useful validities for specified occupations. For example, extraversion was predictive of performance in managerial jobs. Salgado (1997) found similar results in European samples and also found emotional stability to be a generalizable predictor.

The magnitude of the validity coefficients reported in the above analyses was in the .20s and Hertz and Donovan (2000) pointed out that it was based on such magnitudes that Guion and Gottier (1965) had rejected the use of personality variables in personnel selection. Thus, the question becomes whether criterion-related validities of .20 are meaningful. A related question is whether the actual magnitudes of the validity coefficients for job performance are much higher. Ones *et al.* (2005) as well as Hogan (2005) argue that the validities are much higher (.40s) if compound traits such as integrity (Ones, Viswesvaran, & Schmidt, 1993) are used.

Alternately, arguments can be made based on utility analysis (Schmidt, Hunter, McKenzie, & Muldrow, 1979) that even validities in the magnitude of .20s are useful and important. Finally, attempts have been made to increase the validity coefficient with several analytic, administrative and scoring strategies. A set of papers presented in this special issue discuss and test some of these strategies.

Benson and Campbell (2007) explore two strategies empirically. First, they explore whether non-linearity in personality–performance relationships exists. They demonstrate an inverted *U*-function between personality variables and leadership in two different samples using two different inventories. Complex, non-linear functions substantiated by theory need to be explored more extensively in this area. A second strategy that

this paper brings to our attention is the possibility of bipolarity in personality measurement. Specifically, future research should address whether the role of positive traits in predicting performance is also reflective of how negative traits derail performance.

Interactionist psychology has always stressed that behavior is determined by both environmental and individual traits (Hogan, 2005). In assessing the criterion-related validities of many personality variables, the context could affect the magnitude of the validities. Arguments have been made (Murphy, 1989) that the tenure of the employee on a job affects the importance of a trait in predicting performance. Broadly, this issue has been referred to as criterion dynamicity (Barrett, Cladwell, & Alexander, 1985), and empirical tests have shown that the validity of cognitive ability remains stable over the tenure of employees (Schmidt, Hunter, Outerbridge, & Goff, 1988). However, with respect to personality variables, there is little empirical test of this hypothesis. Hypotheses have been advanced that the validity of personality will increase with time as all employees master successfully the needed skills to perform the job tasks. Murphy (1989) argues that there is a transition stage when cognitive abilities are more predictive and a maintenance stage when personality variables become important.

The possibility of personality variables becoming more predictive over time may not be uniformly true for all personality variables. Specifically, Moser and Galais (2007) present interesting data (in this special issue) that the possibility of higher validities in the maintenance stage may perhaps be true only for some personality variables. Using data from sales insurance agents, Moser and Galais find that self-monitoring is valid for predicting job performance early in the tenure of employees, but not as valid at later stages. This is an interesting finding and the boundary conditions of the trajectory of validities of personality variables over time need further theorizing and empirical verification.

In discussing the importance of personality variables, the utility equation developed by Brogden (1949) has been used to translate correlation coefficients to dollar terms (or productivity units). Vinson, Connelly and Ones (in this special issue, 2007) point out that to the extent conscientiousness is related to both performance and turnover, the utility estimates may need to be revised. First, we have the direct positive effects of conscientiousness on performance. Second, there is an indirect effect to be considered: more conscientious employees may be more likely to turn over. Hence, the higher levels of organizational switching by more conscientious individuals might affect the overall utility of assessing conscientiousness.

Klehe and Anderson (2007) explore the possibility that the validity of personality measures will be affected by cultural and social factors. They explore how

personality variables could influence social loafing under typical and maximal performance conditions. The effects of collectivism and power distance on moderating the effects of personality on social loafing are presented. The typical and maximal performance distinction (Cronbach & Gleser, 1965) has usually been assumed to indicate that personality will be a predictor of typical but not maximal performance. Klehe and Anderson (2007) suggest that personality–performance relations can be modified by other variables such as power distance. This is an intriguing avenue of research that will suggest ways to maximize the validity of personality by manipulating organizational variables.

Finally, another approach to enhance the validity of personality measure is to explore the possibility of compound traits that could yield greater validity, hypothesized by some to have emergent properties. Dilchert (2007) examines whether personality profile patterns are useful in predicting managerial interests. ‘New’ personality variables are ever introduced in the literature, but one such variable, Emotional Intelligence, has garnered considerable research attention in recent years (Goleman, 1995). Van Rooy and Viswesvaran (2004) meta-analytically explored the validity of emotional intelligence and found substantial validity over the Big Five factors. Byrne, Smither, Reilly and Dominick (2007) present evidence of the validity of the Emotional Competence Inventory for predicting several variables such as peer nominations of influence. Research should continue to explore the feasibility of such new predictors in the coming years.

### 3. The question of faking

Voluminous research has been published on the issue of faking in personality measurement with self-reports (cf. Dilchert *et al.*, 2006). The primary concern is that in high-stakes testing, individuals may provide responses so as to portray themselves in a desirable manner to secure valued rewards than in a truthful manner. Different schools of thought exist on this issue. Some researchers (Hogan, 2005) have argued that providing desirable responses is a sign of an adjusted individual and as such should not be a concern in personality assessments at work. However, it is important and interesting to note that individual differences in socially desirable responding as captured by social desirability scales are not predictive of performance (cf. Viswesvaran, Ones, & Hough, 2001).

It has also been pointed out (e.g., Ones *et al.*, 1993) that personality scores assessed in high-stakes situations (e.g., job applicants) have demonstrated considerable criterion-related validity. The fact that these scores obtained under high-stakes situations are still correlated with individual differences in the criterion of

interest is indicative that personality assessment is useful in organizational settings. It is true that laboratory studies have shown that when directed to fake, college students can increase their personality scores (Viswesvaran & Ones, 1999), but the ecological validity of these directed faking studies is questionable and the generalizability of findings from directed faking studies to high-stakes assessments in organizational settings is problematic. Ones, Viswesvaran, and Reiss (1996) meta-analytically cumulated the literature and found that partialling out socially desirability scores does not affect the criterion-related validity of personality measures. Other researchers (e.g., Ellingson, Smith, & Sackett, 2001) have shown that socially desirable responding does not affect the construct validity of the measures either.

Despite these encouraging findings that criterion-related validities of personality measures are not destroyed among job applicant samples, practitioners and researchers have continued to express concern about the potential effects of faking in personality assessments (e.g., Donovan, Dwight, & Hurtz, 2003). Others (e.g., Mueller-Hanson, Heggstad, & Thornton, 2003) have expressed the concern that while the validity coefficients remain robust, the rank ordering of individuals at the top end of the distribution will be affected (i.e., faking will affect who gets hired). Arguments have also been made that the problem is with the construct validity of the extant social desirability scales. The argument is that these scales are deficient and do not capture the actual faking behavior.

To combat the perceived threat of faking among job applicants, suggestions have been made to use forced-choice scales (Villanova, Bernardin, Johnson, & Dahmus, 1994) and/or to rely on warnings to test-takers against faking (Vasilopoulos, Cucina, & McElreath, 2005). Given the centrality of this issue to personality assessment in personnel selection, the differing views around faking need to be aired, discussed and evaluated.

Some of the articles in this special issue of personality at work have also tackled this continuing question. Kuncel and Borneman (2007) suggest a new method of identifying fakers. Reminiscent of empirical keying methods to scoring biodata items, their approach rests on comparing the distribution of responses to individual items between honest and faked responses. The central idea is to model how assessed individuals will balance competing demands of looking good, sounding plausible, etc., to obtain the most advantageous score. Future efforts should explore and refine this framework.

Connolly, Kavanagh and Viswesvaran (2007) examine whether observer ratings can be substituted for self-ratings. Their results suggest that the two correlate substantially, but sources of unique variance also exist. This is in line with , Barrick and Strauss’ (1994) finding

of incremental validity for observer ratings of personality above self-reports. However, the empirical evidence for the incremental validity of the two sources beyond the other is scant and future empirical research is needed to illuminate this area. Connolly *et al.* (2007) also note an interesting paradox: as the level of acquaintanceship of the observer with the participant increases, the convergence with self-ratings is higher, but as the level of acquaintanceship increases, so does the motivation of the observer to distort the ratings. Finally, Berry, Page and Sackett (2007) point out the interactive effects of socially desirability components (self-deceptive enhancement and impression management) with personality variables.

#### 4. Conclusion

The set of papers presented in the three installments of this special issue (March 2007, June 2007 and September 2007) have attempted to address important questions in the use of personality at work. Another noteworthy feature of these articles is the diversity of samples collected from different continents and measures. We have authors and samples from Germany (Moser and Galais, 2007), Australia (Carless, Fewings-Hall, Hall, Hay, Hemsworth, & Coleman 2007), Thailand (Smithikrai, 2007), the Netherlands (Klehe & Anderson, 2007) and the United States. Understanding the role of personality variables in explaining organizational behavior is an international effort and this special issue, just as the Lueneburg conference that gave rise to it, has retained the global view. The *International Journal of Selection and Assessment* has continually strived to facilitate scientific communication across borders and this special issue continues that trend. Personality at work is an important issue in most countries and cultures, and the role of personality is likely even more complex with the addition of contextual factors. We hope that future research and practice will find the set of papers presented as part of the special issue to be informative and useful.

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