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Are Situational Judgment Tests Better Assessments of Personality than Traditional Personality Tests in High-Stakes Testing?

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Personality, Situational Judgment Tests, and Faking

Traditional personality assessments, such as the International Personality Item Pool (Goldberg, 1999), provide respondents with a list of behaviors (e.g., work hard, feel comfortable around people) and they are asked to rate the accuracy with which each statement describes their behavior. In high-stakes testing situations in which decisions are made based on test results (e.g., admissions decisions in the case of educational tests, and employment decisions in the case of personnel selection testing), applicants are likely to be motivated to respond to achieve a favorable score. For example, using a traditional personality assessment, people applying for a sales job may present themselves as more extroverted and sociable than they really are. Faking has been studied extensively in non-cognitive self-report measures, such as personality inventories, biodata inventories, and integrity tests (e.g., Alliger & Dwight, 2000; Becker & Colquitt, 1992; Douglas, McDaniel, & Snell, 1996; Graham, McDaniel, Douglas, & Snell, 2002; Ones, Viswesvaran, & Reiss, 1996). Research makes it clear that personality tests can be faked.

Two major research streams have addressed situational judgment tests (SJT) and faking. One research stream addresses the maximum limits of faking using lab studies where students are instructed to fake (Juraska & Drasgow, 2001; Nguyen, Biderman, & McDaniel, 2005). Nguyen et al. found that when instructed to fake using behavioral tendency questions, the faking effect ranged from $d$ of 0.15 to 0.34. The authors concluded that, “... in practice, SJT scores obtained under the knowledge
The response format could be treated as being relatively immune from faking. Essentially, the scores on the SJT knowledge response format will be as high as the applicant can make them regardless of the inclination to fake” (p. 257).

The other research stream focuses on typical levels of faking in real-world settings, often comparing students, applicants, and incumbents (Peeters & Lievens, 2005; Ployhart, Weekley, Holtz, & Kemp, 2003). In a comparison between applicants’ and incumbents’ responses to a paper-based personality measure and a paper-based SJT, Ployhart et al. (2003) found that differences were significantly greater for personality measures of conscientiousness and emotional stability than for SJT items. Peeters and Lievens (2005) investigated the use of SJTs to supplement student admission procedures. Using a sample of 293 psychology students, they found that scores of students who were instructed to fake were significantly higher than those of students in the honest condition. Lievens, Peeters, and Schollaert (2008) concluded that faking has less impact on SJTs than on personality inventories.

Hooper, Cullen, and Sackett (2006) reviewed existing literature on faking and SJT mean scores, and drew three important conclusions. First, SJTs might be prone to faking with effect sizes ranging from 0.08 to 0.89. Second, this large variability could be explained by several moderating variables: (a) when SJTs had a stronger cognitive loading, they were less fakable; (b) more transparent items were more fakable; and (c) behavioral tendency response instructions led to greater levels of fakability than knowledge instructions used (Nguyen et al., 2005). Third, they concluded that SJTs are less fakable than personality inventories. In sums, research shows that faking has less impact on SJTs than on personality inventories (Lievens, Peeters, & Schollaert, 2008).

In their study comparing mean SJT scores of applicants and incumbents, MacKenzie, Ployhart, Weekley, and Ehlers (2010) found that, in contrast to most non-cognitive predictors, applicants obtained lower scores on SJTs than incumbents in all six organizations studied. A practical implication of this finding is that SJTs will more effectively distinguish among applicants than alternative non-cognitive predictors, such as personality.

Depending on how the SJT is designed, people may respond to item alternatives in several ways. They may indicate which actions they would most and least likely perform; they may select which responses are the best and worst actions; or they may rate the effectiveness of each response. The response approaches to SJT items fall into two categories (McDaniel, Hartman, Whetzel, & Grubb, 2007). Respondents can be asked to describe their behavioral tendencies (e.g., which of these responses would I likely do?) or they can be asked to display their knowledge (e.g., which of these responses is the best thing to do?). We offer that knowledge instructions are faking-resistant because both the faking and honest respondents have the same goal, that is, to use their knowledge to select the best answer. This assertion is supported by Nguyen et al. (2005). Although some research suggests that faking might improve SJT scores somewhat (Hooper et al., 2006), we assert that SJTs with behavioral tendency instructions and personality tests can be easily faked, but SJTs with knowledge instructions are substantially faking-resistant. Thus, in high-stakes situations, in which applicants are motivated to fake, we suggest that SJTs with knowledge instructions will yield less faking-distorted assessments than traditional personality measures.
Do SJTs Measure Personality?

McDaniel et al. (2007) reported the relationship between the two types of SJT response instructions with cognitive ability and personality. They found that SJTs correlate in varying degrees with the Big Five personality traits (Digman, 1990), and that the magnitude of these correlations is moderated by the SJT response instructions. SJTs with behavioral tendency instructions tend to be more correlated with personality and less correlated with cognitive ability than SJTs with knowledge instructions. Further evidence of the SJT as a measure of personality is provided by Arthur, Glaze, Jarrett, White, Schurig, and Taylor (2014). Using a knowledge-based set of instructions, they found that the SJT correlated 0.31 with Agreeableness, 0.34 with Conscientiousness, and 0.24 with Emotional Stability. In summary, in situations in which there is little motivation to fake, SJTs with behavioral tendency instructions would capture the most personality variance. However, in high-stakes testing situations, we assert that SJTs with knowledge instructions will yield more accurate assessments of personality due to their faking resistance.

We note that the assessment of personality using SJTs comes with some drawbacks. Factor analyses of SJT items often yield solutions that are difficult to interpret (McDaniel & Whetzel, 2005; Schmitt & Chan, 2006), and many attempts to develop SJTs that measure particular constructs have had only limited success (e.g., Oswald, Schmitt, Kim, Ramsay, & Gillespie, 2004). One problem is that a single SJT item can assess multiple constructs (McDaniel & Whetzel, 2005). This situation makes forming homogeneous scales from SJT items unlikely. Thus, if the goal is to create homogeneous scales of personality traits, personality tests are preferred. If the goal is to measure personality in high-stakes testing situations, we assert that SJTs are preferred.

Although homogeneous scales are rare in SJT applications, there have been attempts to construct taxonomies for SJTs. Based on the work of Huffcutt, Conway, Roth, and Stone (2001), Christian, Edwards, and Bradley (2010) used a taxonomy of criterion constructs (contextual, task, and managerial performance) and identified a taxonomy of SJT content (leadership, interpersonal, and managerial skills). They found that SJTs measuring interpersonal, teamwork, and leadership skills had higher validity than a heterogeneous composite (SJTs that could not be classified by construct). They also found that SJTs measuring leadership and interpersonal skills were more valid for measuring managerial performance. In sum, there is ample research evidence showing that SJTs are correlated with personality and are faking-resistant when knowledge instructions are used. However, few explanations have been provided about why SJTs predict job performance.

SJT as a Measure of Procedural Job Knowledge

One plausible explanation for the relationships among SJTs and personality variables is that SJTs can be used to assess personality indirectly through procedural job knowledge. Campbell (1990) and Campbell, McCloy, Oppler, and Sager (1992) provided a model of job performance in which performance is a function of declarative knowledge
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(knowledge of facts, rules, principles, and procedures), procedural knowledge and skill (knowing what to do), and motivation (the choices to expend effort, the level of effort to expend, and persist in the expenditure of effort). Individual differences in stable traits, such as personality, are indirectly related to job performance through their effects on these direct determinants. As such, personality affects procedural knowledge (e.g., agreeable people are likely to understand how to negotiate with others), and procedural knowledge affects job performance (e.g., knowledge of how to negotiate with others affects job performance). As another example, someone who has learned that expressions of emotional stability are more effective than expressions of neuroticism in situations that involve interactions with clients has more knowledge about how to act effectively in a consulting job, assuming that a calm demeanor toward clients is more effective than a nervous disposition in that job. An SJT item that measures procedural knowledge of team management is shown in Table 15.1.

Those who have procedural knowledge of team management may understand that goals set jointly among members of a team are more likely to be accepted by the team and that accepted goals are more likely to be met. Those who are agreeable may have this knowledge and may be more likely to select option A. Thus, people who are more agreeable are more likely to have procedural knowledge of how to manage a team, and successful management of a team may be required to perform a particular job. These examples describe how SJTs measure personality indirectly through procedural job knowledge.

Consistent with this model, SJTs have been developed to measure diverse procedural knowledge domains such as teamwork knowledge (McClough & Rogelberg, 2003; Morgeson, Reider, & Campion, 2005; Mumford, Van Iddekinge, Morgeson, & Campion, 2008; Stevens & Campion, 1999), aviation pilot judgment (Hunter, 2003), employee integrity (Becker, 2005), call-center performance (Konradt, Hertel, & Joder, 2003), academic performance (Oswald et al., 2004), personal initiative (Bledow & Frese, 2009), conflict resolution (Olson-Buchanan et al., 1998), customer service (McHenry & Schmitt, 1994; Weekley & Jones, 1997), and passenger relations (Jones, 1987).

Hunter (1986) made an analogous argument in the cognitive ability domain. He showed that the more distal construct, cognitive ability, had a relationship with job performance through job knowledge. The interaction between Hunter’s (1983) model showing how cognitive ability predicts task performance through the intervening variable of job knowledge, and Motowidlo, Borman, and Schmit’s (1997) model showing how personality predicts contextual performance through the intervening variable of...
contextual knowledge, is shown in Figure 15.1. In sum, prior research suggests that personality is related to job performance as mediated by job knowledge, and this job knowledge (procedural, contextual) can be measured using SJTs.

Lievens and Sackett (2012) provided evidence for this model using four samples ($N = 723$) of medical students. They used a video-based SJT to assess procedural knowledge of interpersonal behavior at the time of admission to medical school, and then assessed internship performance seven years later and job performance nine years later. They found that the SJT showed incremental validity over cognitive factors. They concluded that there is a conceptual link between procedural knowledge of interpersonal behavior and how that knowledge translates into actual behavior in internships and job performance.

The idea that SJTs measure procedural job knowledge was further corroborated by MacKenzie et al. (2010). They found that across six organizations studied, cognitive ability was a stronger correlate of SJT scores for incumbents than applicants. This led the authors to conclude that incumbents with greater cognitive ability more effectively acquired and used organization-specific knowledge.

Evidence further supporting the model was provided Bergman et al. (2008), who studied support staff working with agents who sell financial and insurance products ($N = 148$). Using a test battery that included personality (i.e., openness and assertiveness) and an SJT that measured knowledge of customer relations, they found that openness to experience was related to customer service knowledge, as measured with their SJT, which was related to service performance. In a study with human factors professionals (HFPs), Motowidlo, Martin, and Crook (2013) created an SJT that measured contextual knowledge of HFP service encounters. They showed that conscientiousness was significantly related to knowledge about effective and ineffective behavior in simulated service encounters.

Further evidence of the indirect relationship between using SJTs to measure personality and the prediction of job performance are provided using single-response SJTs (Motowidlo, Crook, Kell, & Naemi, 2009). Examples of such items are
provided in Table 15.2, in which one item describes effective behavior and one describes ineffective behavior. In a study with administrators of volunteer agencies, Motowidlo et al. (2009) found that SJT scores representing procedural knowledge about work effort were significantly correlated with ratings of work effort performance, demonstrating the construct validity of the single-item SJT. They further found that conscientiousness was correlated with work effort procedural knowledge, and that this procedural knowledge was significantly correlated with ratings of work effort performance. However, conscientiousness was not directly correlated with work effort performance, thus supporting the indirect relationship of personality with job performance.

Crook et al. (2011) conducted two studies investigating single-response SJTs as measures of job knowledge. In the first study of museum tour guides, they developed an SJT to measure procedural job knowledge and computed effective and ineffective SJT scores. They correlated the SJT scores with a measure of Big Five personality traits and job performance. They found that personality was significantly related to job knowledge as measured by the single-response SJT; however, knowledge did not account for incremental variance after personality was accounted for. In their second study of volunteers, they found that knowledge as measured by the single-response SJTs was significantly correlated with volunteer performance, and that personality traits were related to job knowledge. Unlike the first study, they found that job knowledge was an intervening variable between personality traits and job performance, as knowledge accounted for significant variance in performance after personality traits were accounted for. These results provide support for the notion that job knowledge is an intervening variable in the relationship between personality, as measured by SJTs, and job performance.

In sum, we argue that SJTs provide a better prediction of job performance than traditional personality measures because they measure personality indirectly by assessing procedural job knowledge. This is important because procedural job knowledge should not be fakable. Similar to tests of cognitive ability, either one has the knowledge or one does not.

### Recommendations for Future SJT Research

This chapter has offered evidence that SJTs may be a better approach to measuring personality in high-stakes testing situations than traditional personality tests. We do not anticipate that those with commercial and scholarly investments in traditional personality
tests will wholeheartedly embrace this position. We offer a few issues best addressed by future research that may help to resolve differences in perspectives on this topic.

A key issue in resolving whether SJTs or traditional personality tests are better at assessing personality in high-stakes testing situations is the need for clear knowledge of a respondent’s personality. Self-reports of personality likely include inaccuracies due to impression management and self-deception. The reports of others with respect to a person’s personality are also likely to have some inaccuracies. The reporting other may lack full and accurate knowledge of the target’s personality and may have motivations to distort the personality of the target.

One approach to sidestep the issue of a true knowledge deficit is to determine whether an SJT or a traditional personality measure best predicts in a high-stakes testing situation. From a prediction perspective, such a horse race is both informative and serves to guide practice. However, the SJT and the traditional personality measure may not be tapping exactly the same personality traits, and the SJT may be better in prediction due to constructs outside of personality (e.g., most SJTs measure, in part, cognitive ability).

Evaluating the relative merit of SJTs and traditional personality tests in high-stakes testing would benefit from greater knowledge of SJTs and their role in prediction. One relevant topic is to better understand the nature of procedural knowledge and skills. For example, procedural knowledge regarding interpersonal interactions are probably different for different audiences (e.g., when dealing with clients vs. co-workers) and different situations (e.g., conflict management vs. teambuilding). One possible method for developing a better understanding of what kind of knowledge is measured by SJTs is to use think-aloud protocol analysis, where respondents are asked to describe aloud what they are thinking as they respond to an SJT item.

Finally, Ployhart (2006) offered a process model for situational judgment measures. The predictor response process (PRPR) model suggests that interpreting and responding to an SJT item requires four distinct processes: comprehension, retrieval, judgment, and response. Individual difference variables, such as cognitive ability and personality, may differentially affect one’s responses to SJTs. For example, cognitive ability is likely related to how effectively and how quickly one comprehends and retrieves relevant examples of appropriate behavior from memory. The judgment and responses that one makes could be driven by personality and implicit personality theory (Motowidlo, Hooper, & Jackson, 2006) (e.g., those who are more agreeable are more likely to rate agreeable actions favorably than people who are less agreeable). Decomposing the response process by introducing an interference task and assessing participants’ memory may be one method for understanding the psychological processes underlying SJT responses, and may inform the debate over whether SJTs are better assessments of personality than traditional personality tests in high-stakes testing situations.

References


