

**THE BIG FIVE AS PREDICTORS OF PROCEDURAL JUSTICE  
PERCEPTIONS**

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# **THE BIG FIVE AS PREDICTORS OF PROCEDURAL JUSTICE PERCEPTIONS**

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I can do all things through Christ, who strengthens me.

Philippians 4:13

This work is dedicated to my husband Alan Wrenn and to my parents, Deigie Andrews and Dr. Otis Andrews. I know my PhD has been a difficult road not just for me, but for those who are close to me. Alan, you have loved me, encouraged me, believed in me, and even threatened to disown me if I quit. You said and did whatever it took to get me to finish, but you were always willing to distract me from my troubles by reminding me to have a good time. Few people have the opportunity to be in grad school and have a life. You made that possible for me. Thank you. To my parents, thank you for all the years of emotional and financial support. Thank you for answering all of my sobbing phone calls, taking the time to listen to me proclaim for the 47<sup>th</sup> time that I was quitting, and for never believing that I actually would. A small part of this dissertation must also be dedicated to Tanner Andrews Wrenn. You were there for me from grad school applications through graduation. You spent more time by my side than anyone else, keeping me company, loving me, and waiting for me to drop part of my sandwich.

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## **SUMMARY**

This study investigated the Big Five as predictors of procedural justice perceptions.

Perceptions of a personality test, an assessment interview, a cognitive test, and the process as a whole were measured immediately after testing and again after the selection process outcome was known. The strongest pattern of relationships emerged between extraversion and procedural justice perceptions of the personality test and the individual assessment interview. No other personality factors were consistently predictive of procedural justice perceptions. Selection process outcome was not predictive of procedural justice perceptions. Comparisons across measures revealed that applicants perceived the assessment interview more positively than the personality test or the cognitive test and that applicants perceived the process as a whole more positively than the individual measures.

# **CHAPTER 1**

## **INTRODUCTION**

The area of applicant perceptions has received an increasing amount of attention from researchers in recent years. What was previously a largely unexplored area of study is now being investigated as a major factor in the selection process. The blossoming interest in applicant perceptions is due to a number of factors concerning both theory and practice. In terms of theory, interest has been sparked by the examination of applicant perceptions in relation to well established theories and areas of research. For example, researchers in the area of recruitment have begun to appreciate applicant perceptions as an important consideration in the selection process (e.g., Rynes, 1993). Also, the application of such frameworks as organizational justice theory to the area of applicant perceptions (Folger & Greenberg, 1985) has encouraged additional work in the area (Ryan & Ployhart, 2000).

Interest in applicant perceptions has also been encouraged by a developing awareness of the potential impact of these perceptions on important outcomes. Researchers have suggested a number of reasons why organizations should be concerned about applicants' perceptions of selection measures. Possible effects on the validity of selection measures are one reason for concern. The success of a selection system is determined by the ability of a measure to accurately assess the applicants' ability or characteristics. If applicants have negative perceptions of selection procedures, they may have a decreased motivation to do well. Some authors suggest that this may result in the

failure of a measure to accurately reflect their true scores (Rynes, 1993; Smither et al., 1993).

The effect of applicant perceptions on utility is another major cause for concern. Applicant perceptions are posited to affect both pursuit and acceptance of job offers (Smither et al., 1993). Negative perceptions of a selection measure may decrease the organization's ability to attract good applicants. Loss of qualified applicants could occur through a reduced applicant pool or low acceptance rates (Boudreau & Rynes, 1985). Avoiding negative perceptions is also an issue for organizations who are concerned about increasing the diversity of their work force. Employers must consider whether or not particular selection measures will elicit negative reactions from minority members.

Negative perceptions of selection processes may also have spillover effects for the organization. These effects could take the form of recommendations to others or consumer behavior (Hough & Oswald, 2000; Smither et al., 1993). That is, applicants who react negatively to selection processes may be less likely to recommend the employer to others. They may also be less likely to purchase goods or services produced by the organization. Such spillover effects can have an impact on the reputation of an organization (Hough & Oswald, 2000).

The legal consequences of applicant perceptions may also be substantial. Discrimination lawsuits can be very difficult for organizations in terms of financial loss and impact on organizational reputation. A number of theorists have asserted that positive applicant perceptions may help organizations in avoiding such litigation (Hough & Oswald, 2000; Gilliland, 1993; Smither et al., 1993). If applicants, particularly minority applicants, perceive selection processes to be fair and appropriate, they will be

less likely to pursue discrimination lawsuits against the organization. If litigation is pursued, generally positive applicant perceptions may enhance the extent to which a selection measure can be defended (Smither et al., 1993).

### **1.1 Overview of Gilliland's Model of Applicant Perceptions**

The study of applicant perceptions has its roots in justice theory. Researchers have long been interested in fairness and perceptions of fairness. Historically, justice theory has been primarily concerned with two types of justice. According to Colquitt et al. (2001), these are a) the fairness of outcome distributions and b) the fairness of the procedures used to determine distribution of outcomes. The first of these is distributive justice. The concept of distributive justice is most often attributed to Adams' (1965) equity theory. Adams discussed fairness in terms of a social exchange framework. The idea is that people are primarily concerned about the fairness of outcomes as opposed to the outcomes themselves. People evaluate the fairness of outcomes by first calculating the ratio of their inputs to the outcome they received. They then compare this ratio to their perceptions of others' ratios. This comparison determines fairness.

The other commonly discussed type of justice is procedural justice. Thibaut and Walker introduced the idea of procedural justice in 1975. Until this time, the study of distributive justice had dominated the justice literature (Colquitt et al., 2001). Thibaut and Walker stressed the importance of examining the fairness of the process leading up to the outcome and not just the outcome alone. Although their work was primarily conducted in courtroom settings, procedural justice was soon extended into other areas of study. Leventhal (e.g., Leventhal 1980) and Greenberg and colleagues (e.g., Bierhoff, Cohen, and Greenberg, 1986; Folger & Greenberg, 1985) began to apply the concept of

procedural justice to work settings. Since then it has been the topic of much empirical and theoretical study.

A less commonly examined addition to the organizational justice literature is interactional justice, introduced by Bies and Moag (1986). Interactional justice focuses on the way in which people are treated during personnel processes. There is considerable disagreement among researchers as to whether interactional justice is a distinct type of fairness or whether it is a dimension of procedural justice (Brockner, Ackerman, & Fairchild, 2001; Cropanzano et al., 2001). Colquitt et al. (2001) found that all three types of justice, although related, contribute to overall perceptions of fairness. There is a wealth of support on both sides of the debate (Cropanzano et al., 2001).

While it can be said that, historically speaking, theoretical development in the area of applicant perceptions has been lacking (Gilliland, 1993; Smither et al., 1993), several researchers have suggested ways in which applicant perceptions can be conceptualized. According to Gilliland (1993), the majority of these theoretical efforts lack clearly established links to more fundamental psychological theory. In an effort to improve on these theories, Gilliland (1993), proposed a model of applicant perceptions based on organizational justice theory. It has become the predominant theoretical framework in the applicant perceptions literature (Ryan & Ployhart, 2000). Gilliland's procedural justice concept has become the primary focus of the majority of investigations into applicant perceptions. This may be due to the assumption that perceived procedural justice will have a stronger relationship to attitudes and reactions than will perceived distributive justice (Gilliland, 1993; Lind & Tyler, 1988). This assumption is based on the idea that procedural justice perceptions are based on various interactions with people



from the organization or within the selection system while distributive justice perceptions are based on a one-time distribution of outcomes. Gilliland notes that the potential effects of distributive justice depend on applicants' perceived level of procedural justice. That is, applicants will be most dissatisfied with the outcome of the selection process when they feel that their procedural justice rules were violated.

In Gilliland's (1993) model, procedural justice is the fairness of selection measures and processes. Procedural justice is evaluated by applicants based on a set of ten procedural justice rules. Applicants' perceptions of the extent to which these rules are satisfied result in an overall fairness evaluation of the selection system. The first category of procedural justice rules is formal characteristics of the selection system. It includes the rules of job relatedness, opportunity to perform, opportunity for reconsideration, and consistency of administration. Gilliland notes that job relatedness may be the greatest procedural influence on perceptions of fairness. The second category of procedural justice rules is explanation or information offered to applicants. It includes feedback, selection information, and honesty. Interpersonal treatment, the third category, is composed of rules about interpersonal effectiveness of the administrator, two-way communication, and the propriety of questions. Proposed influences on the perceived satisfaction of these procedural rules are the type of selection test used, human resource policy, and actions of human resource personnel.

Gilliland's model also includes distributive justice. Distributive justice is defined as the fairness of the hiring decision and/or test outcome. Gilliland proposed that distributive justice is evaluated by applicants based on a set of three distributive justice rules. These rules are equity, equality, and needs. Perceptions of the degree to which

these rules are satisfied are combined to yield an overall evaluation of the fairness of the selection outcome.

New theories of applicant perceptions continue to emerge, such as Ployhart and Harold's AART theory (2004) which posits that perceptions of selection measures depend on an attributional process. However, their theory still retains Gilliland's original justice rules. These rules serve as the expectation component in the attributional process. That is, applicants compare their perceptions of the selection measure or process to their expectations about how the measure or process should be, according to Gilliland's justice rules.

## **1. 2 Overview of Empirical Findings**

Although Gilliland's model has become a generally accepted framework for the study of applicant perceptions, there has been little adherence to any consistent structure in the empirical investigation of these perceptions. Ryan and Ployhart (2000) cite this as a major concern associated with the area of applicant perceptions. A wide variety of perceptions have been examined, including procedural justice, distributive justice, face validity, perceived predictive validity, job relatedness, and belief in test.

These perceptions have also been linked to a number of various outcomes, most of which do not directly correspond to Gilliland's 1993 framework.. According to Ryan and Ployhart (2000), the premise of applicant reaction research has always been that reactions impact how applicants view the organization, applicants' decisions to join the organization, and subsequent behaviors of applicants. In terms of applicants' views of the organization, a number of variables have been examined. For example, a number of researchers have found that applicant perceptions positively predict organizational

attractiveness (Bauer, et al., 2001; Maertz, Bauer, Mosley, and Posthuma, 2000; Smither et al., 1993) and attitudes toward the organization (Bauer, Maertz, Dolen, and Campion, 1998; Lind and Tyler, 1988).

While the effect of applicant perceptions on decisions to join the organization has been a major topic of discussion, little research has been devoted to examining actual decisions (Ryan & Ployhart, 2000). Rather, intentions to join the organization are typically measured instead of actual behaviors. Maertz, Bauer, Mosley and Posthuma (2000) and Ployhart and Ryan (1997) found that procedural justice perceptions are positively related to intentions toward the organization. Similarly, Macan, Avedon, Paese, and Smith (1994) showed that applicant perceptions of fairness are predictive of job acceptance intentions.

There has been considerably less research into the antecedents of applicant perceptions. Influences that have been studied include the method of assessment, type of job, the amount of information provided to applicants, interpersonal treatment at the test site, and individual difference variables. Chan and Schmitt (1997) found that a video form of a test receives more positive face validity ratings than a paper and pencil version of the same test. The link between the video form of the test and actual performance on the job was more obvious to participants than was the relationship between the paper and pencil test and job performance. A study by Murphy, Thornton, and Reynolds (1990) suggests that the acceptability of a procedure may be affected by the type of job for which it is used. For example, drug testing is seen as more acceptable for jobs where safety is a concern. That is, jobs such as airline pilot and police officer involve responsibility for the safety of others. For this reason, drug testing is seen as appropriate

for individuals seeking those jobs. The extent to which procedural information is provided to applicants can also have an effect on applicants' perceptions of process fairness (Ployhart, Ryan, & Bennett, 1999). Knowing more about how selection decisions were made increased participants' perceptions of the selection process. Ambrose and Rosse (2003) found that the extent to which test administrators express concern for applicants' feelings can also have an impact on perceptions of testing.

Research has shown that there is wide variability in the perceptions of applicants in the same selection systems (Rosse, Miller, & Stecher, 1994; Rynes, 1993). According to Arvey et al. (1990), there is a need to assess whether variability in perceptions is due to individual differences, situational characteristics, or both. However, many researchers have noted that, in general, individual differences as antecedents of applicant perceptions are vastly underexplored (e.g., Arvey et al., 1990; Ryan & Ployhart, 2000). As mentioned by Ryan and Ployhart (2000), research into the influence of individual differences on applicant perceptions is necessary in order to determine the extent to which applicant perceptions are malleable.

A few individual difference variables have been investigated as possible influences on applicant perceptions. Some researchers have stated that applicant perceptions do not vary much by demographic characteristics (Rynes & Connerly, 1993), while others have found evidence that such characteristics do make a difference. For example, Arvey et al. (1990) found that minority applicants had less positive attitudes toward testing than did nonminority applicants. Chan (1997) found that blacks had lower predictive validity perceptions than whites for cognitive ability tests. However, no differences were found between blacks and whites on predictive validity perceptions of

personality tests. Similar results were found for face validity perceptions of cognitive ability tests by Chan et al. (1997). Whites had higher face validity perceptions than did blacks. Chan and colleagues (see Chan et al., 1997) have suggested that the effect of race on applicant perceptions is mediated by previous performance on a parallel test and have found some evidence to support this idea. In one study (Chan et. al, 1997) they found that racial differences in applicant perceptions were a result of racial differences in test performance. Other researchers have suggested that racial differences in test perceptions depend, in part, on the extent to which individuals perceive a “stereotype threat” associated with that measure, that is, whether or not they feel that their racial group is expected to do poorly on that test (Ployhart, Ziegert, McFarland, 2003). Lounsbury, Bobrow, and Jensen (1989) found that Hispanic applicants had more favorable attitudes toward testing than did applicants in other ethnic groups. They also found that younger applicants had more favorable attitudes than did older applicants. The researchers did not provide any potential explanations for their findings.

One individual difference that may have an effect on applicant perceptions is personality. Although personality is not explicitly contained in Gilliland’s 1993 model, individual differences are incorporated as possible influences on applicant perceptions. A number of researchers have indicated a need to examine personality as a possible predictor of applicant perceptions. For example, Ryan and Ployhart (2000) and Bauer et al. (2001) state that it is time to explore personality as a predictor. In Ployhart and Harold’s AART theory (2004) personality is hypothesized to be one of the individual variables that impact individuals’ perceptions regarding the extent to which organizational justice rules are satisfied. Rosse, Miller, & Stecher (1994) also mention

that a promising area of future research is the investigation of the relationship between personality test results and applicant perceptions of tests. As far back as Fiske (1967) researchers have been suggesting that personality might be an influence on the way in which applicants perceive selection tests. While there has been discussion of personality as a possible predictor of applicant perceptions, there has been little empirical work on the topic (Ryan & Ployhart, 2000). There is a need to assess these possible relationships using what is the most universally accepted personality structure: the Big Five personality factors. These factors should be examined in relationship to perceptions of commonly used selection measures.

### **1.3 Current Study**

In the current study, the Big Five personality factors were investigated as predictors of applicant perceptions. Given the call for empirical investigation of the effects of individual differences on applicant perceptions (Arvey et al., 1990; Ryan & Ployhart, 2000), and the suggestion by researchers that personality in particular should be investigated (Bauer et al., 2001, Fiske, 1967; Rosse, Miller, & Stetcher, 1994; Ryan & Ployhart, 2000), the current study has the potential to contribute substantially to the literature. The Big Five personality dimensions of extraversion, emotional reactivity (sometimes referred to by its opposite: emotional stability), agreeableness, conscientiousness, and openness to experience were examined in relation to Gilliland's concept of procedural justice. The focus is on procedural justice, not only because procedural justice is the predominant concept in the applicant perceptions literature, but also because it is the category of perceptions believed to have the greatest impact on important attitudes and behaviors of applicants (Gilliland, 1993; Lind & Tyler, 1988) and

is considered to be the most salient during applicant screening and selection (Gilliland & Hale, 2005). Perceptions of procedural justice toward a personality measure, an individual assessment interview, and a cognitive ability test, as well as perceptions of the selection process as a whole, were measured.

Another gap in the applicant perception literature has been the lack of a comprehensive measure of procedural justice perceptions. Researchers have used a wide variety of measures and in many cases have measured procedural justice with a single item such as “this test is fair.” Due to this inconsistency of measurement, Bauer et al. (2001) and others have expressed a need for a comprehensive measure of procedural justice. The Selection Procedural Justice Scale (SPJS) was developed by Bauer et al. (2001) to measure perceptions of dimensions of fairness related to Gilliland's (1993) procedural justice rules. The SPJS contains eleven subscales: job relatedness, information known, chance to perform, reconsideration opportunity, feedback, consistency, openness, treatment, two-way communication, propriety of questions, and job relatedness content. Because it was recently introduced, the SPJS has not been widely used widely (e.g., Truxillo et al, 2002). Thus, in addition to investigating the relationship between personality factors and procedural justice perceptions, this study will also provide additional information concerning the reliability and factor structure of this relatively new measure.

#### **1. 4 Relationship of Big Five Personality Factors to Applicant Perceptions**

Beginning in the late 1980s, personality began to make a comeback in the psychological literature. The study of personality had been widely criticized in the 1960s and it became increasingly difficult to conduct and publish studies investigating

personality (Hogan & Roberts, 2001). However, in recent years personality has been rediscovered and researchers are beginning to appreciate its usefulness in a variety of settings. With this reemergence of personality theory, there has also been a greater focus on the structure and measurement of personality. The most notable development in this line of research has been the rise of the Five Factor Model of personality, originally attributed to Tupes and Christal (1961). According to this model the multitude of personality traits that exist in the psychological literature can be categorized into five dimensions: Extraversion, Agreeableness, Conscientiousness, Emotional Reactivity, and Openness. While there is still some debate about whether or not the Big Five are the best way to organize personality dimension, the taxonomy has become dominant in the field (Judge, Martocchio, and Thoresen, 1997) and is generally agreed upon by researchers (Hogan and Roberts, 2001) .

#### **1.4.1 Extraversion**

While there has been some disagreement about the specification of the factors in the five factor model, Extraversion is perhaps the dimension that is most often agreed upon (Barrick & Mount, 1991). Extraversion is commonly described using such words as sociable, talkative, outgoing, and adventurous (Judge, Martocchio, & Thoresen, 1997; Mount & Barrick, 1995). Extraverts are often expressive, gregarious, and group-oriented. They enjoy social interaction. In contrast, introverts are reserved, less expressive, and less oriented toward group activities. LePine and Van Dyne (2001) suggest that they extraverts may also be more comfortable and skilled in communicating their thoughts to others than are introverts. Extraversion is often viewed as assertiveness or boldness.



Extraversion has been examined in relation to a number of organizational outcomes. Researchers have found that extraversion is positively related to performance in positions that require social interaction such as sales, customer service, and management (Barrick, Mount, & Judge, 2001; Barrick & Mount, 1991; Furnham & Coveney, 1996; Vinchur, Schippmann, Switzer & Roth, 1998). Judge, Martocchio, and Thoresen (1997) found that extraversion was predicted employee absence. The authors suggested that extraverts had more absences because they considered work as an obstacle to spending time with family and friends.

Extraverts are not shy or afraid to speak up. Because of this, it is expected that extraverts will be participative in the selection process and will actively seek out any information or assistance that they need from the psychologist or the office staff or will at least feel that they have that option. This should result in a more positive perception of the selection process in that extraverts will feel that they were treated well and all of their needs were attended to. Specifically, extraverts may perceive greater openness (e.g., “Test administrators were candid when answering questions about the measures”) and two-way communication (“There was enough communication during the testing process”) than will introverts because they will engage in more communication with test administrators and ask more questions. Introverts may be less willing to ask questions or request assistance. Thus, they may perceive less openness and two-way communication during the selection process.

**Hypothesis 1:** extraversion will be positively related to procedural justice perceptions of the testing process as a whole.

While there has been no research that directly suggests a relationship between extraversion and applicant perceptions, Brutus & Ryan (1998, as cited in Ryan & Ployhart, 2000) found that applicants who prefer to work alone (i.e., who are introverted) do not see selection measures that assess interpersonal skills as job-related. This suggests that more introverted applicants may have negative perceptions of selection procedures which assess social skills or interpersonal style. On the other hand, extraverts should have more positive perceptions of such measures. Because, personality testing provides a chance to express one's personal characteristics and discover more about one's self, and because extraverts perceive that they will do well on such tests (Brutus & Ryan, 1998), they may have positive perceptions of such testing. Specifically, because extroverts perceive personality tests as measures that they will perform well on, they may perceive personality tests as a good indicator of how well they will perform on the job (job relatedness and job relatedness content) and they may feel that they can really show themselves through the personality test (chance to perform). They may also have more positive perceptions of the propriety of the questions. That is, they are unlikely to see the items on the personality test as too personal or private because, as extraverted individuals, they are comfortable sharing this information about themselves. Introverts may find it awkward to convey this type of information about their personal characteristics and may negatively perceive tests which require this type of information.

**Hypothesis 2a:** extraversion will be positively related to procedural justice perceptions of the personality test.

Similarly, extraversion should be positively related to procedural justice perceptions of the individual assessment. That is, extraverts will feel optimistic about their performance

and enjoy the interaction, resulting in more positive perceptions of the job relatedness of the interview, their chance to perform and the propriety of the questions. Introverts on the other hand, may feel uncomfortable with their performance and with the social interaction and thus have negative perceptions of the individual assessment.

**Hypothesis 2b:** extraversion will be positively related to procedural justice perceptions of the individual assessment interview.

No relationship is hypothesized to exist between extraversion and perceptions of cognitive ability testing, because cognitive ability testing does not require the same type of personal disclosure and assessment of interpersonal skills that personality testing and individual assessments involve.

#### **1.4.2 Emotional Reactivity**

According to Judge and Bono (2001), emotional reactivity, commonly called Neuroticism, is the most pervasive trait across personality measures and is present in almost every personality inventory. It is typically described using words such as anxious, insecure, fearful, and apprehensive (Mount & Barrick, 1995). Emotional reactivity represents the “proneness of the individual to experience unpleasant and disturbing emotions and to have corresponding disturbances in thoughts and actions” (Vestre, 1984, as cited in McCrae & Costa, 1990, p. 41). It reflects the tendency of an individual to be emotional, tense, or easily upset and the tendency to experience negative moods (Judge & Bono, 2001). In contrast, those who score low on emotional reactivity can be described as calm, secure, relaxed, stress-tolerant, etc.

Empirical studies have shown that emotional reactivity is remarkably stable over time (Costa & McCrae, 1992). Emotional reactivity has also been found to be predictive

of individuals' subjective well being. People low on emotional reactivity are generally happier and more satisfied with life (DeNeve & Cooper, 1998). Similarly, Judge, Locke, Durham, & Kluger (1998) found that emotional reactivity was negatively related to job satisfaction. Concerning the relationship between emotional reactivity and job performance, results have been mixed. Some studies have found no significant relationship between the two (Barrick & Mount, 1991), while others have found that emotional reactivity is negatively related to performance on the job (Barrick, Mount, & Judge, 2001; Judge & Bono, 1999; Salgado, 1997; Tett, Jackson, & Rothstein, 1991). Barrick, Mount, and Judge (2001) also found that emotional stability (the opposite of emotional reactivity) was predictive of teamwork measures.

Some researchers (e.g., Ball, Trevino, & Sims, 1993) have suggested that applicants high in such negative affectivity may have less fair perceptions of the selection process fairness. This may be because applicants who are high on emotional reactivity react fearfully to selection measures. Hiring situations may result in a considerable amount of anxiety for people who score high on emotional reactivity. As a result, they may have negative perceptions of the selection process. Specifically, because individuals who are highly emotionally reactive react fearfully and anxiously to employment testing, they may perceive less openness during the process (e.g., "Test administrators did not try to hide anything from me during the testing process"). Their anxiety may also translate into less positive perceptions of their treatment at the testing site (e.g., "The testing staff put me at ease when I took the measures."). People low on emotional reactivity, however, are typically described using words such as stable, confident and effective

(Hogan, 1994). They may be less anxious and have more positive perceptions of the openness and treatment that they experience during the selection process.

**Hypothesis 3:** emotional reactivity will be negatively related to procedural justice perceptions of the testing process as a whole.

Individuals who are highly emotionally reactive are also typically more insecure than their less reactive counterparts (Mount & Barrick, 1995). For this reason, they may doubt their ability to perform well on selection measures. The result may be that they do not see the selection measures as appropriate means for predicting job performance. It is well documented that individuals who feel that they do poorly on particular tests have less positive perceptions of those tests (Chan et al., 1998b). Chan and colleagues have attributed this to a self-serving bias mechanism. That is, test takers who have perceptions of poor performance reduce the threat to the self by evaluating the test as not predictive of job performance or not relevant to the job. Thus, it is expected that emotionally reactive applicants will have less positive perceptions of the selection measures, particularly in terms of job relatedness, job relatedness content, chance to perform, and propriety of questions.

**Hypothesis 4a:** emotional reactivity will be negatively related to procedural justice perceptions of the personality test.

**Hypothesis 4b:** emotional reactivity will be negatively related to procedural justice perceptions of the individual assessment interview.

**Hypothesis 4c:** emotional reactivity will be negatively related to procedural justice perceptions of the cognitive ability test.

### **1.4.3 Agreeableness**

Good-natured, trusting, cooperative, and flexible are words often used to describe individuals who score highly on the personality trait of agreeableness (Mount & Barrick, 1995). People that score high on the agreeableness factor typically “get along with others and maintain harmonious relationships” (MPG, 2001. p. 9). According to LePine and Van Dyne (2001), agreeable people also tend to value cooperation and conform to norms. They are more likely to “go along” with things than are people who score low on agreeableness. Those who are low on agreeableness can be described as hostile, unsociable, and antagonistic (McCrae & Costa, 1990; LePine and Van Dyne, 2001).

Though not the strongest predictor of work related outcomes, agreeableness has been found to be predictive of performance in particular types of jobs. For example, in jobs that require a great deal of helping, cooperating, and nurturing agreeableness has been found to be predictive of individual teamwork skills (Barrick et al., 1998; Mount, Barrick, & Stewart, 1998) as well compatibility at the team level (Barrick, et al., 1998). Also, Skarlicki, Folger and Tesluk (1999) found that agreeableness was negatively related to organizational retaliatory behavior such as taking office supplies home without permission or intentionally damaging work equipment.

Because individuals who score highly on agreeableness are trusting, believe the best in others and rarely suspect hidden intent (McCrae & Costa, 1990), they may be less likely to form negative perceptions of the selection process. Agreeable applicants may be more willing to accept that a selection process is fair because they are more likely to trust the organization and the selection personnel. Specifically, they may perceive greater openness (e.g., “I was treated openly and honestly during the testing process.”) than will

less agreeable applicants. In contrast, those that score low on agreeableness may be more suspicious of and more willing to find fault with both the selection process and the selection measures. In a study investigating fairness and retaliation in the workplace, Skarlicki, Folger, and Tesluk (1999) found that agreeableness was positively correlated with perceptions of procedural justice.

**Hypothesis 5:** agreeableness will be positively related to procedural justice perceptions of the testing process as a whole.

Because agreeable individuals tend to be cooperative, trusting, and accepting it is expected that they will have more positive perceptions in terms of each of the eight scales which refer to the specific measures used in the selection process. Their general lack of fault finding tendencies (Zuroff, 1994) will result in more positive overall procedural justice perceptions of the selection measures.

**Hypothesis 6a:** agreeableness will be positively related to procedural justice perceptions of the personality test.

**Hypothesis 6b:** agreeableness will be positively related to procedural justice perceptions of the individual assessment interview.

**Hypothesis 6c:** agreeableness will be positively related to procedural justice perceptions of the cognitive ability test.

#### **1.4.4 Conscientiousness**

Conscientious individuals are dependable, responsible, hard-working, and achievement oriented (Mount & Barrick, 1995). They generally think of themselves as highly competent and tend to be efficient in their work, in part because of their organization skills (McCrae & Costa, 1990). Individuals who score highly on

conscientiousness are also planful and purposeful (Judge, Martocchio, & Thoresen, 1997). In contrast, individuals who score low on conscientiousness are described as undisciplined, spontaneous, and flexible.

One aspect of conscientiousness that seems to be particularly important is achievement orientation (Judge, Martocchio, & Thoresen, 1997). Conscientious individuals strive to excel in everything that they do. Indeed, conscientiousness has even been referred to by some as the “will to achieve” (Digman, Takemoto-Chock, 1981; Judge, Martocchio, & Thoresen, 1997). Thus, it is no surprise that conscientiousness is the personality variable which is found to be most strongly and consistently related to job performance (e.g., Barrick & Mount, 1991; Barrick, Mount, & Judge, 2001; Tett, Jackson, & Rothstein, 1991). Highly conscientious individuals typically perform better on the job than do individuals low on conscientiousness. This relationship has been found across a variety of criterion types and occupations. Researchers have also found that conscientiousness contributes incremental validity over cognitive ability in the prediction of job performance (Avis, Kudisch, & Fortunato, 2002). In addition, conscientiousness has been found to be predictive of grade point average for students (Paunonen & Nicol, 2001). Many researchers believe that high achievement orientation is responsible for these conscientiousness/performance relationships.

Because conscientious individuals have a high need for achievement, they are likely to place more value on situations in which they have the opportunity to be evaluated. They most likely gravitate towards such opportunities and are relatively comfortable with the idea of testing since they perceive themselves to be highly competent. This achievement striving may also have an impact on applicants’



perceptions of selection measures. Achievement oriented applicants may perceive selection procedures that provide an opportunity to demonstrate their abilities and accomplishments as being more fair than those procedures that do not provide such an opportunity. Personality tests do not provide an opportunity for applicants to demonstrate their abilities or achievements. There are no right or wrong answers on personality tests, thus "excelling" on such a measure is not possible. As a result, applicants may have negative procedural justice perceptions of personality tests. Specifically, because the personality test does not provide the opportunity to prove themselves, conscientious individuals may perceive low job relatedness, job relatedness content, chance to perform, and propriety of questions.

**Hypothesis 7a:** conscientiousness will be negatively related to procedural justice perceptions of the personality test.

The individual assessment interview may provide some opportunity for applicants to demonstrate their ability or achievement level, in that it involves discussion of previous education, experience, or accomplishments (see Appendix D). Due to this opportunity to excel in the interview, conscientious individuals may perceive the individual assessment interview positively and have higher perceptions of job relatedness, job relatedness content, chance to perform, and propriety of questions.

**Hypothesis 7b:** conscientiousness will be positively related to procedural justice perceptions of the individual assessment interview.

Cognitive ability tests clearly provide an opportunity for applicants to demonstrate their ability. Conscientious individuals may see these tests as fair because they provide a clear, quantitative measure of achievement. Because they provide a chance for

conscientious individuals to excel, cognitive ability tests may be perceived positively by these applicants, including higher perceptions of job relatedness, job relatedness content, chance to perform, and propriety of questions.

**Hypothesis 7c:** conscientiousness will be positively related to procedural justice perceptions of the cognitive ability test.

Conscientiousness is not hypothesized to have an impact on applicants' perceptions of the selection process as a whole. General perceptions of the selection process refer to the openness, treatment and communication at the test site.

Conscientiousness is not hypothesized to have any impact on these factors.

#### **1.4.5 Openness to Experience**

Researchers typically describe openness to experience as characterized by curiosity, broadmindedness, intelligence, and imagination (Mount & Barrick, 1995).

Individuals who are high on openness value experience for its own sake and feel that it adds meaning to life (McCrae & Costa, 1990). As a result, they are often willing to try new things. They are also curious and place a high value on knowledge and the acquisition of knowledge. They often have a broad range of interests (Barrick, Mount, & Judge, 2001).

Openness to experience has often been found to be related to training performance (Barrick & Mount, 1991; Barrick, Mount, & Judge, 2001; Salgado, 1997). Individuals high on openness generally have a greater interest in training and place greater value on learning new things. The result is that they perform better in training than those low on openness to experience. Consistent relationships have not been found between openness to experience and measures of job performance (Mount & Barrick, 1998). McCrae

(1996) argues that the potential effects of openness to experience are widespread and are concentrated primarily in the social and political domain.

Because of their curiosity and the value that they place on knowledge and new experience, individuals high on openness to experience may have more positive perceptions of the selection process. They may view it as an opportunity to learn more about themselves and about selection methods used by organizations. As a result they may be more inquisitive about the process and more communicative with the test administrator. This, in turn, will result in greater perceptions of openness and two-way communication. In contrast, individuals who have low openness scores tend to be less open-minded and have more focused interests. They have little inclination towards intellectual pursuits (MPG, 2001). Such individuals may not value the selection process as a chance to learn; rather they may be less interested in and less trusting of the process, resulting in less positive perceptions of openness and two-way communication.

**Hypothesis 8:** openness to experience will be positively related to procedural justice perceptions of the testing process as a whole.

Individuals high in openness to experience may be more open-minded when it comes to selection processes and measures. They may be more amenable to and trusting of selection measures, resulting in greater perceptions of job relatedness, job relatedness content, and propriety of questions. Ryan and Ployhart (2000) suggest that openness to experience may be positively related to perceptions of selection processes that are new to the applicant. This implies that openness to experience will have the greatest impact on applicant perceptions when the individual is unfamiliar with the selection measure at hand. Because people who are high on openness welcome new experiences, they will

have positive perceptions of selection measures that are new to them. In contrast, individuals low on openness to experience may be more skeptical of selection procedures and processes, particularly when the procedure is new to the applicant.

**Hypothesis 9a:** openness to experience will be positively related to procedural justice perceptions of the personality test, but this relationship will be moderated by past experience with similar selection measures, such that openness will be more predictive of perceptions when applicants have little or no past experience with personality tests.

**Hypothesis 9b:** openness to experience will be positively related to procedural justice perceptions of the individual assessment interview, but this relationship will be moderated by past experience with similar selection measures, such that openness will be more predictive of perceptions when applicants have little or no past experience with individual assessment interviews.

**Hypothesis 9c:** openness to experience will be positively related to procedural justice perceptions of the cognitive ability test, but this relationship will be moderated by past experience with similar selection measures, such that openness will be more predictive of perceptions when applicants have little or no past experience with cognitive ability tests.

Test performance or knowledge of test performance is also frequently assessed as a determinant of applicant perceptions or as a moderator of the relationship between applicant perceptions and various outcomes. There is empirical evidence that those who do well on a selection measure have more positive perceptions of that measure following outcome or feedback (e.g., Kluger & Rothstein, 1993). Macan et al. (1994) found that candidates who performed well viewed the entire selection process more positively than did those who performed poorly. For this reason, procedural justice perceptions will be

measured both prior to the hiring outcome and following the outcome of the selection process. Such an experimental design will allow for investigation of the relationship between outcome and procedural justice perceptions. Consistent with previous research, it is hypothesized that:

**Hypothesis 10:** those who are offered a job will have more positive procedural justice perceptions of the selection process as a whole than will those not offered a job when perceptions are measured after the outcome is known.

**Hypothesis 11a:** those who are offered a job will have more positive procedural justice perceptions of the personality test than will those not offered a job when perceptions are measured after the outcome is known.

**Hypothesis 11b:** those who are offered a job will have more positive procedural justice perceptions of the individual assessment interview than will those not offered a job when perceptions are measured after the outcome is known.

**Hypothesis 11c:** those who are offered a job will have more positive procedural justice perceptions of the cognitive ability test than will those not offered a job when perceptions are measured after the outcome is known.

Although it is expected that selection process outcome will have an impact on perceptions of procedural justice, it is also expected that the effects of the five personality factors on perceptions of procedural justice (Hypotheses 1 – 9c) will remain even when the perceptions are measured post-outcome and the outcome of the process is controlled for, however the relationships between personality factors and perceptions of procedural justice will be somewhat reduced.

Another interesting line of applicant reaction research is the comparison of perceptions of various types of selection measures. For example, there is evidence that applicants perceive job or work sample tasks to be fairer than paper and pencil tasks (Robertson & Kandola, 1982). Rynes and Connerly (1993) found evidence that interviews, résumé evaluations, and work samples are seen by applicants as more fair than cognitive ability tests. Research also suggests that paper and pencil measures such as ability and achievement tests are considered more job-related than are personality or interest inventories (Smither et al., 1993). Indeed, a number of studies have found that cognitive ability tests are perceived to be fairer than personality tests (Chan, 1997, Rosse, Miller, & Stecher, 1994; Rynes & Connerly, 1993; Smither et al., 1993). Thus, it seems that measures such as work sample tests, interviews, and résumé evaluations are seen as fairer and more job related than cognitive ability tests. Cognitive ability tests, in turn, are seen as fairer and more job related than are personality tests. Thus, it is hypothesized that:

**Hypothesis 12a:** Procedural justice perceptions of the individual assessment interview will be significantly higher than procedural justice perceptions of the personality test and of the cognitive ability test.

**Hypothesis 12b:** Procedural justice perceptions of the cognitive ability test will be significantly higher than procedural justice perceptions of the personality test.

#### **1.4.6 Other Variables that Influence Applicant Perceptions**

According to Ryan and Ployhart's (2000) review of applicant perceptions of selection procedures, there are a number of variables which have been found to be predictive of justice perceptions. These variables should be considered in any study that

examines applicant perceptions. They are: type of procedure, self-assessed performance, type of job for which applicant is applying, information that is provided to the applicant, race, and outcome of the selection process. Type of procedure and outcome of the selection process have been considered and incorporated into the above hypotheses. Information concerning self-assessed performance, type of job, and race will be collected from all applicants and will be considered when examining the above hypotheses. There is no need to statistically control for information about the selection procedure; all applicants will receive the same instructions and identical information concerning the selection measures.

## **CHAPTER 2**

### **METHODS**

#### **2.1 Participants**

Participants at Time 1 were two hundred job applicants (36 female, 161 male) from a variety of industries and companies who underwent a genuine selection process at a small consulting firm in the southeast. The consulting firm has been hired by various clients to test and interview candidates on their behalf. Participants ranged in age from 21 to 59 ( $M = 38.14$ ). Their years of formal education ranged from 12 to 21 years ( $M = 16.56$ ). The majority of participants were Caucasian (94.1%). They were applying for a variety of job types, including sales, staff, management, and executive positions and were from a variety of locations around the country. Participants at Time 2 were sixty-eight of the two hundred participants from Time 1 (12 female, 56 male). They ranged in age from 21 to 59 ( $M = 38.57$ ). Their formal education ranged from 14 to 21 years ( $M = 16.59$ ). The majority of Time 2 participants were Caucasian (92%).

#### **2.2 Measures**

##### **2.2.1 Background Information**

Demographic information (age, race, gender, and education level) was collected from every participant. Each participant also indicated the company and job type for which he or she was applying. For a copy of the background information questionnaire, see Appendix A.



### **2.2.2 Past Experience with Similar Measures**

Each participant indicated his or her prior experience with similar tests by answering three items. These items concerned the measures being used as well as other types of similar measures used for selection or other purposes. For a copy of these items, see Appendix B.

### **2.2.3 Self-Assessed Performance**

Each participant was asked to respond to one item concerning his or her self perception of performance on each measure. Responses could range from 1 ("Well below average") to 5 ("Well above average").

### **2.2.4 Personality**

The Big Five factors were measured using the Business Check List (BCL). The BCL is a 316-item measure designed by a southeastern consulting firm to measure extraversion, emotional stability, agreeableness, conscientiousness, and openness to experience. Each item on the BCL is a word or term that is often descriptive of people in work settings. Applicants are asked to rate each item as it applies to him or her. Responses may range from 1 ("Strongly Disagree. This is definitely not descriptive of me") to 5 ("Strongly Agree. This is definitely descriptive of me"). Raw scores on the BCL are used to form a "standardized ten" (sten) score for each scale. Sten scores range from 1-10, with a mean of 5.5 and a standard deviation of 2. While there are many tests available that measure personality, the BCL was chosen because it was specifically designed for selection settings and it has been validated for such use. The use of a validated selection instrument seems logical given that the focus of this research is applicant perceptions of selection procedures.

The BCL was developed based on the profiles of over 10,000 individuals in a wide range of jobs. Factor analysis of these profiles resulted in the Five Factor structure of personality often observed by other researchers. Construct validation studies using the BCL have found significant correlations between the five BCL personality factors and other accepted personality measures. For example, using a sample of 8,287 people for the 16 PF comparison study and a sample of 3,432 for the Myers-Briggs comparison study, researchers found that the BCL extraversion scale was significantly correlated with the 16 PF higher order factor of extraversion ( $r = .65, p < .01$ ) and the Myers-Briggs introversion/extraversion scale ( $r = .57, p < .01$ ). The BCL emotional reactivity scale was significantly correlated with the 16 PF higher order factor of independence ( $r = .23, p < .01$ ). The BCL agreeableness scale was significantly correlated with the Myers-Briggs thinking/feeling scale ( $r = .29, p < .01$ ). Conscientiousness on the BCL was significantly correlated with the 16 PF higher order factor of control ( $r = .55, p < .01$ ) and the Myers-Briggs judging/perceiving scale ( $r = -.49, p < .01$ ). The BCL openness scale was significantly correlated with the 16 PF higher order factor of independence ( $r = .35, p < .01$ ) and the Myers Briggs sensing/intuitive scale ( $r = .34, p < .01$ ). For a complete list of correlations of the BCL with 16 PF factors and the Myers Briggs see Tables 1 and 2.

According to the BCL Test Manual, internal consistency (Cronbach's coefficient alpha) for the BCL Big Five scales ranges from .89 to .94. Test-retest reliability (across a 2-week time period) ranges from .54 to .90 for the Big Five scales. Test-retest reliability (across a 6-month to 3-year time period) ranges from .51 to .80 for the Big Five factors. In the current study, internal consistency was .78 for extraversion, .91 for emotional

**Table 1.** Relationship of BCL Big Five Factors to 16 PF Scales

	BCL Big Five Factors				
	Extraversion	Emotional Reactivity	Agreeableness	Conscientiousness	Openness to Experience
Reasoning	-.01	-.09	-.07	-.11	.30
Persistent	-.13	-.08	.04	.46	-.16
Imaginative	.09	-.04	-.11	-.21	.32
Experimental	.22	.14	-.27	-.28	.23
Disciplined	-.10	-.13	.13	.48	-.17
Calm	.15	-.03	.05	-.06	.08
Sensitive	.07	-.04	.14	-.16	.07
Critical	.09	.16	-.14	-.16	-.07
Apprehensive	-.23	.07	.01	.05	-.18
Tense	-.19	.08	-.11	.01	-.07
Outgoing	.42	.14	-.03	-.13	.05
Assertive	.43	.23	-.35	-.34	.30
Talkative	.53	.16	.02	-.18	-.01
Socially Bold	.67	.13	-.05	-.20	.12
Sophisticated	-.29	-.09	.16	.28	-.24

**Table 1** (continued)

	BCL Big Five Factors				
	Extraversion	Emotional Reactivity	Agreeableness	Conscientiousness	Openness to Experience
Self-sufficient	-.32	-.11	-.07	-.01	.10
Extraversion	.65	.18	.00	-.17	.02
Anxiety	-.28	.09	-.09	-.02	-.12
Tough Mindedness	-.04	.05	-.02	.17	-.21
Independence	.56	.23	-.34	-.44	.35
Self-Control	-.14	-.12	.08	.55	-.19

Note: Due to large sample size ( $N = 8,287$ ), correlations of .02 are significant at  $p < .01$  and correlations of .03 and above are significant at  $p < .05$ .

**Table 2.** Relationship of BCL Big Five Factors to Myers Briggs Scales

	BCL Big Five Factors				
	Extraversion	Emotional Reactivity	Agreeableness	Conscientiousness	Openness to Experience
Introversion/ Extraversion	.57	.12	.04	-.11	.03
Sensing/ Intuitive	.23	.03	-.09	-.44	.34
Thinking/ Feeling	-.04	-.05	.29	-.09	-.16
Judging/ Perceiving	.09	.09	-.16	-.49	.06

Note: Note: Due to large sample size ( $N = 3,432$ ), correlations of .03 are significant at  $p < .01$  and correlations of .04 and above are significant at  $p < .05$ .

reactivity, .85 for agreeableness, .80 for conscientiousness, and .83 for openness to experience.

Personality was also assessed using the computerized version of the Sixteen Personality Factor Questionnaire (16PF), Fifth Edition (Cattell, Cattell, & Cattell, 1993). The 16PF consists of 185 multiple choice items. Each item is a brief statement. Applicants rate how well each statement applies to them using a three point scale. Raw scores on the 16PF are used to form a "standardized ten" (sten) score for each item. Sten scores range from 1-10, with a mean of 5.5 and a standard deviation of 2. The test can normally be completed in 25 to 35 minutes using computer administration.

Items are grouped into scales, each containing 10 to 15 items. These scales include the 16 primary personality scales originally identified by Dr. Raymond Cattell. Global factors are also reported, including five factors that resemble the Big Five factors of personality. Cattell calls these Extraversion, Anxiety, Tough Mindedness (openness to experience), Independence (agreeableness, reversed), and Self-Control (conscientiousness).

Internal consistency (Cronbach's coefficient alpha) for the 16PF scales ranges from .64 to .85, with an average of .74. Test-retest reliability (across a 2-week time period) for the five global factors ranges from .84 to .91, with a mean of .87. Test-retest reliability (across a 2-month time period) ranges from .70 to .82, with a mean of .78 (Russell & Karol, 1994).

### **2.2.5 Individual Assessment Interview**

The individual assessment interview was conducted by one of six licensed psychologists employed by the consulting firm. The interview lasted approximately one

and a half to two hours and focused on education, work history, developmental history, lifestyle, self-perceptions and past experiences. To see a copy of the interview guide used by the psychologists in conducting the individual assessment interview, please see Appendix D.

### **2.2.6 Cognitive Ability Test**

The SRA Verbal (Thurstone & Thurstone, 1947) was used as the cognitive ability measure in this study. The SRA Verbal is a test of general ability. The test contains two types of items: vocabulary and arithmetic reasoning. Scoring of the test results in a Linguistic score (vocabulary), a Quantitative score (arithmetic reasoning), and a Total score. The test is timed and the score level depends on both power and speed. Studies examining the reliability of the SRA Verbal have found form equivalence reliabilities of .76 for the Linguistic scale, .80 for the Quantitative scale, and .78 for the Total item set.

### **2.2.7 Perceptions of Procedural Justice**

The Selection Procedural Justice Scale (SPJS) was developed by Bauer et al. (2001) to measure Gilliland's (1993) procedural justice rules. Bauer et al. (2001) expressed a need for a comprehensive measure of procedural justice given the present inconsistency of measurement that pervades the applicant perception literature. The SPJS measure contains thirty-nine items. These items are divided into eleven subscales: job relatedness, information known, chance to perform, reconsideration opportunity, feedback, consistency, openness, treatment, two-way communication, propriety of questions, and job relatedness content. Bauer et al. (2001) also discovered three higher order factors: structure, social, and job relatedness content. The first five subscales are part of the structure factor, while the last five subscales are part of the social factor. The

job relatedness factor is composed of the single job relatedness content subscale. For a complete list of subscales and items see

Appendix C.

The SPJS has been found to have significant convergent validity when examined in relation to an overall measure of procedural justice (Bauer et al., 2001). Bauer et al. (2001) also found that responses on the SPJS were significantly related to responses on measures of organizational attractiveness, organizational commitment, recommendation intentions, and self-esteem. In their study all eleven of the subscales were also found to have satisfactory reliability with alpha coefficients ranging from .73 to .92.

Because one goal of the study is to measure applicant perceptions of various selection measures, the scales on the SPJS had to be separated into items which referred specifically to the selection measure being used (e.g., “Doing well on this measure means a person can do the job well”) and items which referred to the selection process as a whole (e.g., “I was treated politely during the testing process”). For a list of the items in each category see Appendix E. A number of small changes in the wording of SPJS items had to be made in order to make them applicable to the current situation. These changes can also be seen in Appendix E. In addition, at the request of the consulting firm, two scales from the SPJS were not included in the survey materials. The firm objected to the use of the reconsideration opportunity and feedback scales, since they have limited control over what happens with a job candidate after he or she completes their testing process. They were hesitant to have candidates respond to items that could set up unrealistic expectations as to what the firm’s role would be after testing was completed.



In the current study, alpha coefficients for the SPJS process as a whole scales ranged from .85 to .97, with a mean of .92. For the SPJS personality test scales, alpha coefficients ranged from .67 to .92, with a mean of .85. Alpha coefficients ranged from .71 to .75 for the SPJS interview scales, with a mean of .85. For the SPJS cognitive test scales, alpha coefficients ranged from .70 to .87, with a mean of .75.

Because the SPJS items were administered in a slightly different manner than described in the original study by Bauer and colleagues, a series of factor analyses were conducted to ensure that the scales remained intact. A principle axis factor analysis with direct oblimin rotation resulted in the expected three factor structure for the process as a whole items. The only exception was that one item that should have loaded on the openness scale loaded instead on the treatment scale. See Table 3 for details. For the item specific SPJS items, principle axis factor analyses with direct oblimin rotation were conducted for items referring to the personality test, the assessment interview, and the cognitive test. In each case, the solution resulted in five factors instead of the expected six. For the personality items, the two job relatedness items loaded with the job relatedness content items instead of forming a factor on their own. See Table 4. For the assessment interview items, one job relatedness item loaded with the chance to perform items, while the other one loaded with the job relatedness content items. See Table 5. For the cognitive items, the job relatedness content items loaded with the chance to perform items. See Table 6. Although the factor structure in the current study varied slightly from that found by Bauer et al. (2001), because no consistent pattern emerged across selection measures and in order to maintain generalizability within the literature, the Bauer et al. scales were left intact.

**Table 3.** Time 1 Data: Factor Analysis of Procedural Justice Perceptions for the Process as a Whole

SPJS Item	Factor
I was comfortable with the idea of expressing my concerns at the test site ( <b>two-way communication</b> )	.917
I would have felt comfortable asking questions about the measures if I had any ( <b>two-way communication</b> )	.767
I was able to ask questions about the measures ( <b>two-way communication</b> )	.751
There was enough communication during the testing process ( <b>two-way communication</b> )	.743
I am satisfied with the communication that occurred during the testing process ( <b>two-way communication</b> )	.684
I was treated politely during the testing process ( <b>treatment</b> )	.874
I was satisfied with my treatment at the test site ( <b>treatment</b> )	.849
The test administrators treated applicants with respect during today's testing process ( <b>treatment</b> )	.802
The test administrators were considerate during the process ( <b>treatment</b> )	.794
Test administrators did not try to hide anything from me during the testing process ( <b>openness</b> )	.461
The testing staff put me at ease when I took the measures ( <b>treatment</b> )	.287
Test administrators were candid when answering questions about the measures ( <b>openness</b> )	.730
I was treated honestly and openly during the testing process ( <b>openness</b> )	.518
Test administrators answered procedural questions in a straightforward and sincere manner ( <b>openness</b> )	.413

**Table 4.** Time 1 Data: Factor Analysis of Procedural Justice Perceptions for the Personality Test

SPJS Item	Factor				
	1	2	3	4	5
This test allowed me to show what my job skills are ( <b>chance to perform</b> )	.886				
This test gives applicants the opportunity to show what they can really do ( <b>chance to perform</b> )	.858				
I could really show my skills and abilities through this test ( <b>chance to perform</b> )	.759				
I was able to show what I can do on this test. ( <b>chance to perform</b> )	.673				
There were no differences in the way this test was administered to different applicants ( <b>consistency</b> )		.998			
The test was administered to all applicants in the same way ( <b>consistency</b> )		.931			
Test administrators made no distinction in how they treated applicants during this test ( <b>consistency</b> )		.750			
I understood in advance what the process for this test would be like ( <b>information known</b> )			.919		
I knew what to expect on this test ( <b>information known</b> )			.876		
I had ample information about what the format of the test would be ( <b>information known</b> )			.846		
The test itself did not seem too personal or private ( <b>propriety of questions</b> )				.776	
The content of this test did not appear to be prejudiced ( <b>propriety of questions</b> )				.746	
The content of the test seemed appropriate ( <b>propriety of questions</b> )				.405	

**Table 4 (continued)**

SPJS Item	Factor				
	1	2	3	4	5
It would be clear to anyone that this test is related to the job (job relatedness content)					.890
The content of the test was clearly related to the job ( <b>job relatedness content</b> )					.809
Doing well on this test means a person can do the job well ( <b>job relatedness</b> )					<b>.554</b>
A person who scored well on this test will be a good performer ( <b>job relatedness</b> )					<b>.411</b>

**Table 5.** Time 1 Data: Factor Analysis of Procedural Justice Perceptions for the Individual Assessment Interview

SPJS Item	Factor				
	1	2	3	4	5
I was able to show what I can do on this interview. ( <b>chance to perform</b> )	.945				
This interview gives applicants the opportunity to show what they can really do ( <b>chance to perform</b> )	.895				
This interview allowed me to show what my job skills are ( <b>chance to perform</b> )	.786				
I could really show my skills and abilities through this interview ( <b>chance to perform</b> )	.653				
Doing well on this interview means a person can do the job well ( <b>job relatedness</b> )	<b>.434</b>				
There were no differences in the way this interview was administered to different applicants ( <b>consistency</b> )		.997			
The interview was administered to all applicants in the same way ( <b>consistency</b> )		.958			
Interview administrators made no distinction in how they treated applicants during this interview ( <b>consistency</b> )		.778			
I knew what to expect on this interview ( <b>information known</b> )			.906		
I understood in advance what the process for this interview would be like ( <b>information known</b> )			.886		
I had ample information about what the format of the interview would be ( <b>information known</b> )			.834		

**Table 5 (continued)**

SPJS Item	Factor				
	1	2	3	4	5
The interview itself did not seem too personal or private ( <b>propriety of questions</b> )				.839	
The content of this interview did not appear to be prejudiced ( <b>propriety of questions</b> )				.622	
The content of the interview seemed appropriate ( <b>propriety of questions</b> )				.514	
It would be clear to anyone that this interview is related to the job ( <b>job relatedness content</b> )					.871
The content of the interview was clearly related to the job ( <b>job relatedness content</b> )					.861
A person who scored well on this interview will be a good performer ( <b>job relatedness</b> )					<b>.336</b>

**Table 6.** Time 1 Data: Factor Analysis of Procedural Justice Perceptions for the Cognitive Test

SPJS Item	Factor				
	1	2	3	4	5
This test allowed me to show what my job skills are ( <b>chance to perform</b> )	.776				
This test gives applicants the opportunity to show what they can really do ( <b>chance to perform</b> )	.775				
I could really show my skills and abilities through this test ( <b>chance to perform</b> )	.671				
The content of the test was clearly related to the job ( <b>job relatedness content</b> )	.601				
I was able to show what I can do on this test. ( <b>chance to perform</b> )	.598				
It would be clear to anyone that this test is related to the job ( <b>job relatedness content</b> )	.594				
There were no differences in the way this test was administered to different applicants ( <b>consistency</b> )		.937			
The test was administered to all applicants in the same way ( <b>consistency</b> )		.891			
Test administrators made no distinction in how they treated applicants during this test ( <b>consistency</b> )		.680			
I knew what to expect on this test ( <b>information known</b> )			.792		
I had ample information about what the format of the test would be ( <b>information known</b> )			.713		
I understood in advance what the process for this test would be like ( <b>information known</b> )			.689		

**Table 6 (continued)**

SPJS Item	Factor				
	1	2	3	4	5
The content of this test did not appear to be prejudiced ( <b>propriety of questions</b> )				.927	
The test itself did not seem too personal or private ( <b>propriety of questions</b> )				.538	
The content of the test seemed appropriate ( <b>propriety of questions</b> )				.366	
Doing well on this test means a person can do the job well ( <b>job relatedness</b> )					.885
A person who scored well on this test will be a good performer ( <b>job relatedness</b> )					.534



### **2.2.8 Selection Process Outcome**

The outcome of the selection process refers to the hiring decision for each job candidate. That is, each candidate was either offered a job or not offered a job. Of the sixty-eight Time 2 participants, thirty-nine received job offers (57%) and twenty-nine did not (43%).

## **2.3 Procedure**

Participants were tested as part of a hiring process conducted by the consulting firm. Applicants were tested at the firm's office. These applicants completed a process that consisted of personality testing, an individual assessment interview, and cognitive ability testing. The process begins with an individual assessment interview followed by cognitive ability testing and personality testing, which are done on computer. The SPJS items were also completed on the computer. In order to minimize the effects of demand characteristics, the applicants were told that the research in which they were participating was being conducted by the Georgia Institute of Technology. They read the following information concerning confidentiality: "Please keep in mind that your confidentiality will be maintained at all times. Your responses to these survey items will have no impact on the hiring decision. The company to which you are applying will not have access to these data. All information concerning you will be kept private."

Upon examination of the SPJS scales, it was apparent that some of the scales referred to the specific measure being given and some scales referred to the selection process as a whole. The scales that refer to the process as a whole were administered only once to the participants. These scales are: openness, treatment, and two-way communication. Items contained in these scales were administered to applicants

immediately following the completion of all the selection measures. The scales that refer to a specific measure or test were administered to participants three times: once each following the individual assessment interview, the cognitive ability test, and the personality test. These scales are: job relatedness, information known, chance to perform, propriety of questions, consistency, and job relatedness content. It should be noted that the applicants completed the procedural justice perception items in reference to and immediately following the BCL personality test and not the 16 PF. The 16 PF was administered during the selection process but at a different point in time than the BCL.

At the time of the initial testing, participants were asked to volunteer for participation in a second wave of the study. They were asked to provide an email address and a mailing address at that time. After the completion of the assessment and testing procedures, the consulting firm makes a recommendation to the client company as to whether or not each candidate should be hired. However, the final hiring decision is, of course, made by the client company. This decision is typically made in two to four weeks. After approximately three weeks, each candidate was emailed and asked to complete an online Time 2 version of the SPJS. Candidates were only asked to complete the survey if they had been notified of the hiring decision. This online Time 2 version included the scales that refer to the selection process as a whole as well as three sets of the items that refer to specific measures (one each for the individual assessment interview, the cognitive ability test, and the personality test). It also included the self-assessed performance item for each measure.

## CHAPTER 3

### RESULTS

#### 3.1 Time 1 Results

A correlation matrix for the BCL variables, 16PF variables, and the procedural justice perception overall means for the process as a whole, the personality test, the individual assessment interview, and the cognitive test can be seen in Table 7. The BCL extraversion variable is positively correlated with procedural justice perceptions of the process as a whole ( $r = .23, p < .01$ ), the personality test ( $r = .24, p < .01$ ), and the assessment interview ( $r = .23, p < .01$ ). In addition, the 16PF extraversion variable is also significantly correlated with procedural justice perceptions of the process as a whole ( $r = .16, p < .05$ ), the personality test ( $r = .18, p < .05$ ) and the assessment interview ( $r = .25, p < .01$ ). Other significant correlations between personality variables and procedural justice perceptions include a positive correlation between BCL openness to experience and perceptions of the assessment interview ( $r = .21, p < .01$ ), a negative correlation between 16PF anxiety and perceptions of the assessment interview ( $r = -.14, p < .05$ ), and a positive correlation between 16PF independence and perceptions of the assessment interview ( $r = .16, p < .01$ ). Means and standard deviations for all of the SPJS procedural justice perception scales can be seen in Tables 8 and 9.

In order to test hypotheses 1-9c regression analyses were conducted with the BCL Big Five factors predicting each of the SPJS scales as well as an overall mean SPJS score. This was done for the process as a whole, the personality test, the individual assessment interview, and the cognitive test.

**Table 7.** Time 1 Data: Correlations Among Variables

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
<u>BCL Variables</u>									
1. Extraversion	5.38	1.46							
2. Emotional Reactivity	5.02	1.09	.30**						
3. Agreeableness	5.32	1.42	-.16*	-.21**					
4. Conscientiousness	5.98	1.34	-.23**	.09	.11				
5. Openness to Experience	5.88	1.54	.38**	-.05	-.33**	-.14			
<u>16PF Variables</u>									
6. Extraversion	7.15	1.54	.64**	.13	-.06	-.17*	.15*		
7. Anxiety	3.90	1.19	-.15*	.24**	.04	-.14*	-.21**	.21**	
8. Independence	6.86	1.34	.50**	.05	-.26**	-.34**	.27**	.42**	-.12
9. Self-Control	6.72	1.25	-.18*	-.02	.01	.42**	-.20**	-.06	-.14
10. Tough-Mindedness	6.03	1.71	-.03	.16*	.01	.12	-.37**	-.02	.09
<u>Procedural Justice Perceptions</u>									
11. Perceptions of the Selection Process as a Whole	4.20	.68	.23**	.07	.06	-.01	.04	.16*	-.10
12. Perceptions of the Personality Test	3.14	.40	.24**	-.03	.03	.03	.13	.18**	-.09
13. Perceptions of the Assessment Interview	3.36	.45	.23**	-.08	.03	-.02	.21**	.25**	-.14*
14. Perceptions of the Cognitive Test	3.13	.36	.12	-.01	.07	.04	.00	.12	-.04

**Table 7 (continued)**

Variables	8	9	10	11	12	13	14
<u>BCL Variables</u>							
1. Extraversion							
2. Emotional Reactivity							
3. Agreeableness							
4. Conscientiousness							
5. Openness to Experience							
<u>16PF Variables</u>							
6. Extraversion							
7. Anxiety							
8. Independence							
9. Self-Control	-.29**						
10. Tough-Mindedness	-.02	.19**					
<u>Procedural Justice Perceptions</u>							
11. Perceptions of the Selection Process as a Whole	.11	.04	.02				
12. Perceptions of the Personality Test	.04	-.01	-.01	.13			
13. Perceptions of the Assessment Interview	.16*	-.07	-.09	.24**	.64**		
14. Perceptions of the Cognitive Test	.01	.02	.02	.23**	.60**	.65**	

\* significant at the .05 level    \*\* significant at the .01 level

**Table 8.** Time 1 Data: Procedural Justice Perception Descriptives (Measure Specific)

SPJS Scale	Personality Test		Assessment Interview		Cognitive Test	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Job relatedness	2.78 <sup>b</sup>	.75	2.96 <sup>b</sup>	.68	2.88	.65
Information known	3.46	.88	3.46	.89	3.50	.90
Chance to perform	2.50 <sup>b</sup>	.70	2.95 <sup>ab</sup>	.76	2.46 <sup>a</sup>	.64
Consistency	3.37 <sup>b</sup>	.58	3.30 <sup>ab</sup>	.56	3.41 <sup>a</sup>	.59
Propriety of questions	3.97 <sup>b</sup>	.47	4.09 <sup>ab</sup>	.49	4.01 <sup>a</sup>	.47
Job relatedness content	2.72 <sup>bc</sup>	.84	3.39 <sup>ab</sup>	.92	2.41 <sup>ac</sup>	.68
Overall Mean	3.14 <sup>b</sup>	.40	3.36 <sup>ab</sup>	.46	3.13 <sup>a</sup>	.36

<sup>a</sup> Mean for the assessment interview significantly differs from its corresponding mean for the cognitive test

<sup>b</sup> Mean for the assessment interview significantly differs from its corresponding mean for the personality test

<sup>c</sup> Mean for the personality test significantly differs from its corresponding mean for the cognitive test

**Table 9.** Time 1 Data: Procedural Justice Perception Descriptives (Process as a Whole)

SPJS Scale	Process as a Whole	
	Mean	Standard Deviation
Openness	4.15	.67
Treatment	4.30	.73
Communication	4.14	.73
Overall Mean	4.20	.68

### 3.1.1 Extraversion

For the testing process as a whole, the BCL measure of extraversion was positively related to candidates' perceptions of their treatment at the test site ( $\beta = .27, p < .01$ ). Extraversion was significantly predictive of the overall mean of all SPJS scales for the process as a whole ( $\beta = .26, p < .01$ ). Thus, while the relationships among extraversion and the various SPJS scales were somewhat different than expected, these results do provide some support for Hypothesis 1. See Table 10 for full results. When the same analysis were conducted using the 16PF data, extraversion did not significantly predict scores on the SPJS scales, although a general positive trend can be seen in the relationships between extraversion and the SPJS scales and well as the overall mean. See Table 11.

For the personality test, BCL extraversion was significantly related to two of the SPJS scales. Extraversion was positively related to candidates' perceptions of consistency and propriety of questions for the personality test ( $\beta = .31, p < .01$ ;  $\beta = .23, p < .01$ ). In addition, extraversion was significantly predictive of the SPJS overall

**Table 10.** Time 1 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Process as a Whole

BCL Big Five	Procedural Justice Perceptions of the Process as a Whole (beta coefficients)			
	Openness	Treatment	Communication	Overall Mean
Extraversion	.24	.27**	.22	.26**
Emotional Reactivity	.00	.00	.01	.01
Agreeableness	.06	.10	.09	.09
Conscientiousness	.09	.03	-.01	.03
Openness to Experience	-.03	-.02	-.02	-.02
R	.23	.27*	.23	.25*

\* significant at the .05 level

\*\* significant at the .01 level



**Table 11.** Time 1 Data: Regression of Procedural Justice Perception Variables onto 16 PF Big Five for the Process as a Whole

16PF Big Five	Procedural Justice Perceptions of the Process as a Whole (beta coefficients)			
	Openness	Treatment	Communication	Overall Mean
Extraversion	.19	.10	.07	.12
Anxiety	-.06	-.01	-.08	-.06
Independence	-.01	.11	.08	.07
Self-Control	.06	.08	.03	.06
Tough-Mindedness	.03	.02	-.01	.01
R	.22	.19	.17	.19

\* significant at the .05 level

\*\* significant at the .01 level

mean ( $\beta = .29, p < .01$ ). These results provide partial support for hypothesis 2a. See Table 12. When the same analyses were conducted using the 16PF personality scales extraversion was positively related to candidates' perceptions of consistency concerning the personality test ( $\beta = .22, p < .01$ ). Thus, when using the 16PF personality data, we find some support for hypothesis 2a. See Table 13 for full results.

For the individual assessment interview, BCL extraversion was significantly related to a number of SPJS scales. Extraversion was positively related to candidates' perceptions of the job relatedness, ( $\beta = .28, p < .01$ ), chance to perform ( $\beta = .19, p < .05$ ), consistency ( $\beta = .38, p < .01$ ) and the overall mean ( $\beta = .24, p < .01$ ) concerning the assessment interview. These results support hypothesis 2b. See Table 14. When the above analyses were conducted using 16PF personality data extraversion was predictive of candidates' perceptions of chance to perform ( $\beta = .19, p < .01$ ), consistency ( $\beta = .29, p < .01$ ), propriety of questions ( $\beta = .19, p < .05$ ), and the overall SPJS mean ( $\beta = .21, p < .01$ ), thus supporting hypothesis 2b. See Table 15.

Very few significant relationships were found between personality variables and SPJS scales for the cognitive ability test. BCL extraversion did positively predict candidates' perceptions of consistency on the cognitive test ( $\beta = .23, p < .01$ ), however, no hypothesis was made concerning the relationship of extraversion to SPJS scales. See Table 16. When the 16PF analyses were conducted, only a relationship between extraversion and candidates' perceptions of consistency for the cognitive test emerged ( $\beta = .22, p < .01$ ). See Table 17.

**Table 12.** Time 1 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Personality Test

Procedural Justice Perceptions of the BCL Personality Test (beta coefficients)							
BCL Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.22	.00	.20	.31**	.23**	.17	.29**
Emotional Reactivity	-.17	-.06	-.09	.07	.03	-.17	-.11
Agreeableness	.03	.17*	.03	-.03	-.06	-.05	.05
Conscientiousness	.04	.02	.00	.11	.27**	.04	.11
Openness to Experience	.00	.25**	-.02	-.17*	-.06	.04	.04
R	.23	.27**	.19	.33**	.32**	.22	.29**

\* significant at the .05 level

\*\* significant at the .01 level

**Table 13.** Time 1 Data: Regression of Procedural Justice Perception Variables onto 16PF Big Five for the Personality Test

Procedural Justice Perceptions of the BCL Personality Test (beta coefficients)							
16PF Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.16	.07	.19	.22**	.05	.15	.19
Anxiety	-.01	-.12	-.05	.07	.00	-.05	-.06
Independence	-.04	-.09	-.05	.02	.05	-.03	-.06
Self-Control	-.02	-.11	-.10	.14	.11	.05	-.02
Tough- Mindedness	-.07	.00	.04	.10	.00	-.10	.00
R	.17	.17	.21	.28**	.12	.20	.20

\* significant at the .05 level

\*\* significant at the .01 level

**Table 14.** Time 1 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Individual Assessment Interview

Procedural Justice Perceptions of the Individual Assessment Interview (beta coefficients)							
BCL Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.28**	.05	.19*	.38**	.13	.12	.24**
Emotional Reactivity	-.25**	.00	-.08	.01	-.06	-.20**	-.13
Agreeableness	.00	.14	.06	-.02	-.02	.07	.08
Conscientiousness	.08	-.01	-.01	.15*	.05	.05	.06
Openness to Experience	.00	.22	.11	-.20**	.04	.26**	.15
R	.30**	.21	.25*	.36**	.14	.36**	.31**

\* significant at the .05 level

\*\* significant at the .01 level

**Table 15.** Time 1 Data: Regression of Procedural Justice Perception Variables onto 16PF Big Five for the Individual Assessment Interview

Procedural Justice Perceptions of the Individual Assessment Interview (beta coefficients)							
16PF Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.15	.06	.19**	.29**	.19*	.13	.21**
Anxiety	-.06	-.09	-.07	-.04	.07	-.14	-.10
Independence	.07	.08	.05	-.02	.05	-.08	.05
Self-Control	.01	-.01	-.11	.11	-.03	-.07	-.04
Tough- Mindedness	-.08	-.04	-.10	.10	.12	-.17*	-.06
R	.22	.13	.30**	.33**	.25*	.28**	.29**

\* significant at the .05 level

\*\* significant at the .01 level

**Table 16.** Time 1 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Cognitive Test

Procedural Justice Perceptions of the Cognitive Test (beta coefficients)							
BCL Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.11	-.04	.19	.23**	.07	.07	.18
Emotional Reactivity	-.19	.00	-.07	.09	-.03	-.02	-.06
Agreeableness	.00	.15	.02	.00	-.03	.01	.07
Conscientiousness	.11	-.10	.06	.10	.15	.04	.07
Openness to Experience	.01	.27**	-.17	-.19*	-.08	-.06	-.03
R	.19	.27**	.19	.28**	.15	.07	.17

\* significant at the .05 level

\*\* significant at the .01 level

**Table 17.** Time 1 Data: Regression of Procedural Justice Perception Variables onto 16PF Big Five for the Cognitive Test

Procedural Justice Perceptions of the Cognitive Test (beta coefficients)							
16PF Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.04	.11	.15	.22**	.13	.08	.13
Anxiety	.03	-.07	.02	-.03	.13	-.09	-.02
Independence	-.02	.12	-.07	-.08	-.07	-.12	-.05
Self-Control	.08	-.12	.02	.09	.04	.02	.01
Tough- Mindedness	-.07	-.06	.10	.06	.00	.01	.02
R	.11	.21	.18	.24*	.16	.15	.13

\* significant at the .05 level

\*\* significant at the .01 level



### **3.1.2 Emotional Reactivity/ Anxiety**

BCL emotional reactivity was not related to any procedural justice perception scales for the process as a whole. Thus, hypothesis 3 was not supported by this data. See Table 10. The same analyses were also conducted using the 16PF personality scales and no relationships with anxiety were found. See Table 11 for complete results.

BCL emotional reactivity was not related to any of the SPJS scales for the personality test, thus, hypothesis 4a was not supported. See Table 12. When the same analyses were conducted using the 16PF personality scales, no significant relationships with anxiety were found. See Table 13.

For the assessment interview BCL emotional reactivity was negatively related to two SPJS scales: job relatedness ( $\beta = -.25, p < .01$ ) and job relatedness content ( $\beta = -.20, p < .01$ ), providing some support for hypothesis 4b. See Table 14. 16PF anxiety was not significantly related to any of the SPJS scales. See Table 15.

For the cognitive test, no relationships to SPJS scales were found for BCL emotional reactivity or for 16PF anxiety. Thus, hypothesis 4c was not supported. See Tables 16 and 17.

### **3.1.3 Agreeableness/ Independence**

BCL agreeableness was not related to any procedural justice perception scales for the process as a whole. Thus, hypothesis 5 was not supported by this data. See Table 10 for complete results. The same analyses were also conducted using the 16PF personality scales and independence was not related to any of the SPJS scales. See Table 11.

Agreeableness was predictive of candidates' perceptions of the amount of information known concerning the personality test ( $\beta = .17, p < .05$ ). This provides some

support for hypothesis 6a. See Table 12. When the same analyses were conducted using the 16PF personality scales no significant relationships were found between 16PF independence and SPJS scales. See Table 13.

For the assessment interview BCL agreeableness was not related to any of the SPJS scales, thus hypothesis 6b was not supported. See Table 14. 16PF independence was also unrelated to any of the SPJS scales. See Table 15.

For the cognitive test, no relationships to SPJS scales were found for agreeableness, thus hypothesis 6c was not supported. See Table 16. Also, no significant relationships emerged for 16PF independence. See Table 17.

### **3.1.4 Conscientiousness/ Self-Control**

BCL conscientiousness was not related to any procedural justice perception scales for the process as a whole. See Table 10. 16PF self control also was unrelated to perceptions for the process as a whole. See Table 11.

For the personality test, BCL conscientiousness was positively related to perceptions of the propriety of questions ( $\beta = .27, p < .01$ ), providing some support for hypothesis 7a. See Table 12. When the same analyses were conducted using the 16PF personality scales, no significant relationships emerged. See Table 13.

For the assessment interview, BCL conscientiousness was positively related to candidates' perceptions of consistency ( $\beta = .15, p < .01$ ). This was not one of the scales specified in hypothesis 7b. See Table 14 for results. 16PF self-control was not related to any perceptions for the assessment interview. See Table 15.

For the cognitive test no relationships to SPJS scales were found for BCL conscientiousness, thus hypothesis 7c was not supported. See Table 16. Using the 16PF data, no significant relationships emerged for self-control. See Table 17 for results.

### **3.1.5 Openness/ Tough-Mindedness**

BCL openness to experience was not related to any procedural justice perception scales for the process as a whole. Thus, hypothesis 8 was not supported by this data. See Table 10 for complete results. The same analyses were also conducted using the 16PF personality scales and no significant relationships were found between 16PF tough-mindedness and perceptions of the process as a whole. See Table 11.

For the personality test, BCL openness to experience was positively related to perceptions of information known ( $\beta = .25, p < .01$ ), providing support for hypothesis 9a. However, openness was negatively related to perceptions of consistency ( $\beta = -.17, p < .05$ ). See Table 12 for full results. No significant results were found using the 16PF data. See Table 13.

Openness to experience was also negatively related to perceptions of consistency ( $\beta = -.20, p < .01$ ) for the assessment interview. However, openness to experience was positively related to candidates' perceptions of job relatedness content ( $\beta = .26, p < .01$ ), a relationship which supports hypothesis 9b. See Table 14 for full results. When these analyses were conducted using the 16PF data, tough mindedness was negatively related to perceptions of job relatedness content for the assessment interview ( $\beta = -.17, p < .01$ ). This finding supports hypothesis 9b. See Table 15 for full results.

For the cognitive test, once again, openness to experience was negatively related to perceptions of consistency ( $\beta = -.19, p < .05$ ), but openness was positively related to

information known ( $\beta = .27, p < .01$ ). The relationship between openness and the information known scale provides partial support for hypothesis 9c. See Table 16 for full results. No significant relationships emerged for 16PF tough-mindedness. See Table 17.

Hypotheses 9a, 9b and 9c also hypothesized that the relationship between openness to experience and procedural justice perceptions would be moderated by past experience with similar selection measures. In order to test these hypotheses, a series of interaction variables were created using the three past experience items that were completed by applicants in response to each of the three selection measures. However, when the regression analyses were conducted, none of the interaction variables were successful in predicting applicants' scores on any of the SPJS scales. This was true for both the BCL openness variable and the 16PF tough-mindedness variable. Thus, hypotheses 9a, 9b, and 9c were not supported by these results.

### **3.1.6 Other Hypotheses**

A series of paired comparison t-tests were conducted in order to examine whether or not scores on the SPJS scale varied based on the type of selection measure. Scores on five SPJS scales significantly differed between the assessment interview and the cognitive test. On the chance to perform ( $t = 9.42, p < .01$ ), propriety of questions ( $t = 2.78, p < .01$ ), and job relatedness content ( $t = 14.03, p < .01$ ) scales, as well as on the overall mean SPJS score ( $t = 9.10, p < .01$ ), applicants' perceptions were more positive for the assessment interview than for the cognitive test. These results support Hypothesis 12a. Consistency ( $t = -4.41, p < .01$ ) was the only scale on which applicants' perceptions were higher for the cognitive test than for the assessment interview. Scores on six SPJS scales significantly differed between the assessment interview and the personality test.

On the job relatedness ( $t = 3.93, p < .01$ ), chance to perform ( $t = 8.23, p < .01$ ), propriety of questions ( $t = 3.76, p < .01$ ), job relatedness content ( $t = 9.95, p < .01$ ) scales, as well as on the overall mean SPJS score ( $t = 8.32, p < .01$ ), applicants' perceptions were higher for the assessment interview than for the personality test. These results also support Hypothesis 12a. Consistency ( $t = -3.16, p < .01$ ) was the only scale on which applicants' perceptions were higher for the personality test than for the assessment interview. The only scale on which scores differed between the cognitive test and the personality test was job relatedness content ( $t = -5.00, p < .01$ ) with applicant's perceptions being more positive for the personality test than for the cognitive test. Thus, hypothesis 12b was not supported.

Paired sample t-tests were also conducted in order to determine whether or not procedural justice perceptions of the selection process as a whole differed significantly from perceptions of the individual selection measures. Applicants' perceptions of the process as a whole were significantly more positive than were perceptions for the personality test ( $t = 20.09, p < .01$ ), the assessment interview ( $t = 16.41, p < .01$ ) and the cognitive test ( $t = 21.80, p < .01$ ).

In examining the data, it became obvious that there was a strong relationship between applicants' procedural justice perceptions for a particular measure and their self-assessed performance on that measure. For the personality measure, applicants' self-assessed performance was correlated with perceptions of job relatedness ( $r = .30, p < .01$ ), chance to perform ( $r = .25, p < .01$ ), job relatedness content ( $r = .23, p < .01$ ) and the overall SPJS mean ( $r = .32, p < .01$ ). For the assessment interview, self-assessed performance was correlated with perceptions of job relatedness ( $r = .38, p < .01$ ),

information known ( $r = .18, p < .05$ ), chance to perform ( $r = .26, p < .01$ ), propriety of questions ( $r = .21, p < .01$ ), job relatedness content ( $r = .32, p < .01$ ), and the overall SPJS mean ( $r = .37, p < .01$ ). For the cognitive test, self-assessed performance was correlated with perceptions of job relatedness ( $r = .34, p < .01$ ), chance to perform ( $r = .25, p < .01$ ), and the overall SPJS mean ( $r = .27, p < .01$ ). See Table 18 for complete results. . Because it is unclear based on the literature whether performance perceptions should be considered an antecedent or an outcome of procedural justice perceptions and because no hypotheses were made concerning this variable, no regression analyses were conducted.

It should also be noted that self-assessed performance was significantly correlated with a number of personality variables. Self-assessed performance on the personality test was significantly correlated with BCL extraversion ( $r = .34, p < .01$ ), 16PF extraversion ( $r = .33, p < .01$ ), 16PF anxiety ( $r = -.16, p < .05$ ), and 16PF independence ( $r = .16, p < .05$ ). Self-assessed performance on the assessment interview was significantly correlated with BCL extraversion ( $r = .24, p < .01$ ), BCL openness ( $r = .21, p < .01$ ), 16PF extraversion ( $r = .28, p < .01$ ), and 16PF independence ( $r = .20, p < .01$ ). Self-assessed performance on the cognitive test was significantly correlated with BCL extraversion ( $r = .19, p < .01$ ), 16PF extraversion ( $r = .15, p < .01$ ) and 16PF independence ( $r = .21, p < .01$ ).

A series of analyses were conducted in order to determine whether or not procedural justice perceptions varied based on any of the demographic and background variables. No differences between minorities and nonminorities were found on any of the SPJS scales. A gender difference was found on only one scale. Females had slightly

**Table 18.** Time 1 Data: Correlations between Procedural Justice Perceptions and Self-Assessed Performance

SPJS Scale	Self-Assessed Performance		
	Personality Test	Assessment Interview	Cognitive Test
<u>Personality Test</u>			
Job relatedness	.30**		
Information known	.09		
Chance to perform	.25**		
Consistency	.13		
Propriety of questions	.10		
Job relatedness content	.23**		
Overall Mean	.32**		
<u>Assessment Interview</u>			
Job relatedness		.38**	
Information known		.18*	
Chance to perform		.26**	
Consistency		.11	
Propriety of questions		.21**	
Job relatedness content		.32**	
Overall Mean		.37**	

**Table 18 (continued)**

SPJS Scale	Self-Assessed Performance		
	Personality Test	Assessment Interview	Cognitive Test
<u>Cognitive Test</u>			
Job relatedness			.34**
Information known			.12
Chance to perform			.25**
Consistency			.03
Propriety of questions			.12
Job relatedness content			.03
Overall Mean			.27**
* significant at the .05 level			
** significant at the .01 level			



more positive perceptions concerning the propriety of questions on the personality test ( $t(195) = 2.15, p < .05$ ). Age was significantly positively correlated with one SPJS scale for the personality test: information known ( $r = .20, p < .01$ ). Age was also positively correlated with two SPJS scales for the assessment interview: information known ( $r = .16, p < .01$ ) and job relatedness content ( $r = .20, p < .01$ ). For the cognitive test, age was positively correlated with information known ( $r = .19, p < .01$ ) and consistency ( $r = -.16, p < .05$ ). Years of education was positively correlated with job relatedness content for the assessment interview ( $r = .17, p < .05$ ).

The SPJS data was also examined for possible differences between psychologists who administered the tests and conducted the individual assessment interviews. For the purpose of comparison, the interviewers will simply be referred to as Psychologists 1-6. For the process as a whole, perceptions of communication were higher among candidates who saw Psychologist 4 than among candidates who saw Psychologist 2 ( $F(5, 191) = 2.42, p < .05$ ). For the interview, perceptions of job relatedness content among candidates who saw Psychologist 3 were higher than among candidates who saw Psychologist 1 ( $F(5, 191) = 2.33, p < .05$ ). Also, perceptions of consistency for the cognitive test were higher among candidates who saw Psychologist 1 than among candidates who saw Psychologists 2 or Psychologist 4 ( $F(5, 191) = 3.54, p < .01$ ).

### **3.2 Time 2 Results**

Procedural justice perceptions were measured at Time 2 using the same SPJS scales employed at Time 1. This Time 2 survey was completed after the hiring decision was known by the applicants. A correlation matrix for the BCL variables, 16PF variables, and the procedural justice perception overall means for the process as a whole,

the personality test, the individual assessment interview, and the cognitive test can be seen in Table 19. In the Time 2 data set the BCL extraversion variable was not significantly related to the overall procedural justice perception means for the process as a whole or the three selection measures. This may be due to the greatly reduced sample size. BCL extraversion was correlated with procedural justice perceptions of the personality test ( $r = .18$ ) and the assessment interview ( $r = .23$ ), however, these correlations did not reach in significance in this data set. 16PF extraversion was significantly correlated with perceptions of the personality test ( $r = .37, p < .01$ ). Contrary to the Time 1 data, 16PF anxiety was correlated with applicants' perceptions of the cognitive test ( $r = .33, p < .01$ ). In addition, BCL emotional reactivity was correlated with perceptions of the cognitive test at .20, though this coefficient did not reach significance. In the Time 1 data, neither of these variables was correlated with applicants' perceptions of the cognitive test. Correlations between Time 1 scores on SPJS variables and Time 2 scores on SPJS variables can be seen in Tables 20 through 23. Scores on Time 2 SPJS scales were generally quite similar to scores on corresponding scales from Time 1. Means and standard deviations for all of the Time 2 SPJS procedural justice perception scales can be seen in Tables 24 and 25.

In order to test hypotheses 1-9c for the Time 2 data, regression analyses were conducted with the BCL Big Five factors predicting each of the SPJS scales as well as an overall mean SPJS score. This was done for the process as a whole, the personality test, the individual assessment interview, and the cognitive test.

**Table 19.** Time 2 Data: Correlations Among Variables

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
<u>BCL Variables</u>									
1. Extraversion	5.31	1.56							
2. Emotional Reactivity	4.91	1.05	.30*						
3. Agreeableness	5.22	1.43	-.25*	-.37**					
4. Conscientiousness	6.01	1.56	-.30*	.00	.07				
5. Openness to Experience	6.21	1.49	.45**	.07	-.37*	-.29*			
<u>16PF Variables</u>									
6. Extraversion	7.00	1.45	.70**	.11	-.14	-.16	.15		
7. Anxiety	3.87	1.11	-.17	.18	-.08	-.26*	-.09	-.13	
8. Independence	6.91	1.47	.58**	.20	-.35**	-.38**	.30*	.42**	-.07
9. Self-Control	6.74	1.39	-.29*	-.09	.10	.52**	-.20	-.19	-.04
10. Tough-Mindedness	5.65	1.82	.00	.37**	-.08	.28*	-.36**	.07	.11
<u>Procedural Justice Perceptions</u>									
11. Perceptions of the Selection Process as a Whole	4.25	.52	.04	.10	-.04	.03	.02	.00	.04
12. Perceptions of the Personality Test	3.15	.50	.18	.16	-.07	.11	.03	.37**	.02
13. Perceptions of the Assessment Interview	3.57	.51	.23	.14	.01	-.08	.13	.15	-.02
14. Perceptions of the Cognitive Test	3.20	.48	.09	.20	-.09	.01	.01	.11	.33**

**Table 19 (continued)**

Variables	8	9	10	11	12	13	14
<u>BCL Variables</u>							
1. Extraversion							
2. Emotional Reactivity							
3. Agreeableness							
4. Conscientiousness							
5. Openness to Experience							
<u>16PF Variables</u>							
6. Extraversion							
7. Anxiety							
8. Independence							
9. Self-Control	-.51**						
10. Tough-Mindedness	-.13	.22					
<u>Procedural Justice Perceptions</u>							
11. Perceptions of the Selection Process as a Whole	.13	.05	-.04				
12. Perceptions of the Personality Test	.05	.02	.15	.41**			
13. Perceptions of the Assessment Interview	.09	-.12	-.04	.54**	.75**		
14. Perceptions of the Cognitive Test	.04	.04	.10	.52**	.68	.74**	

\* significant at the .05 level    \*\* significant at the .01 level

**Table 20.** Time 1 and Time 2 Data: Correlations between Time 1 and Time 2 SPJS scales for the Process as a Whole

Procedural Justice Perceptions of the Process as a Whole (Time 1)	Procedural Justice Perceptions of the Process as a Whole (Time 2)			
	Openness	Treatment	Communication	Overall Mean
Openness	.36**	.42**	.41**	.44**
Treatment	.24	.36**	.42**	.39**
Communication	.21	.33**	.41**	.37**
Overall Mean	.27*	.38**	.43**	.41**

\* significant at the .05 level

\*\* significant at the .01 level

**Table 21.** Time 1 and Time 2 Data: Correlations between Time 1 and Time 2 SPJS scales for the Personality Test

Procedural Justice Perceptions of the Personality Test (Time 2)							
Procedural Justice Perceptions of the Personality Test (Time1)	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Job Relatedness	.44**	.04	.36**	.02	.25*	.24	.34**
Information Known	.17	.69**	.19	.12	-.03	.18	.36**
Chance to Perform	.29*	.13	.29*	-.01	.02	.21	.25**
Consistency	.14	.08	.08	.71**	.24	.14	.32**
Propriety of Questions	.41**	.29*	.34**	.26*	.59**	.28*	.54**
Job-relatedness Content	.41**	.29*	.31*	.01	.10	.43**	.39**
Overall Mean	.49**	.48**	.42**	.30*	.26*	.40**	.60**

\* significant at the .05 level

\*\* significant at the .01 level

**Table 22.** Time 1 and Time 2 Data: Correlations between Time 1 and Time 2 SPJS scales for the Assessment Interview

Procedural Justice Perceptions of the Assessment Interview (Time 2)							
Procedural Justice Perceptions of the Assessment Interview (Time1)	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Job Relatedness	.37**	.07	.36**	.09	.23	.23	.34**
Information Known	-.02	.48**	.04	.04	.07	.10	.17
Chance to Perform	.53**	.16	.61**	.00	.34**	.41**	.53**
Consistency	.25*	.17	.15	.64**	.38**	.30*	.42**
Propriety of Questions	.28*	.33**	.34**	.04	.60**	.32**	.46**
Job-relatedness Content	.29*	.08	.34**	-.02	.23	.50**	.36**
Overall Mean	.46**	.37**	.51**	.16	.46**	.50**	.61**

\* significant at the .05 level

\*\* significant at the .01 level

**Table 23.** Time 1 and Time 2 Data: Correlations between Time 1 and Time 2 SPJS scales for the Cognitive Test

Procedural Justice Perceptions of the Cognitive Test (Time 2)							
Procedural Justice Perceptions of the Cognitive Test (Time1)	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Job Relatedness	.47**	.40**	.35**	-.08	.29*	.21	.42**
Information Known	.22	.57**	.23	-.09	.14	.09	.31**
Chance to Perform	.53**	.32**	.56**	.09	.40**	.41**	.59**
Consistency	.11	.09	-.07	.49**	.09	.07	.17
Propriety of Questions	.38**	.40**	.36**	.07	.63**	.26*	.54**
Job-relatedness Content	.30*	.21	.22	.11	.27*	.35**	.35**
Overall Mean	.57**	.58**	.49**	.19	.51**	.39**	.68**

\* significant at the .05 level

\*\* significant at the .01 level



**Table 24.** Time 2 Data: Procedural Justice Perception Descriptives (Measure Specific)

SPJS Scale	Personality Test		Assessment Interview		Cognitive Test	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Job relatedness	2.70 <sup>b</sup>	.82	3.25 <sup>ab</sup>	.79	2.87 <sup>a</sup>	.79
Information known	3.54	.81	3.69	.72	3.69	.77
Chance to perform	2.57 <sup>b</sup>	.79	3.34 <sup>ab</sup>	.88	2.56 <sup>a</sup>	.82
Consistency	3.40	.63	3.38	.63	3.46	.66
Propriety of questions	3.91 <sup>b</sup>	.62	4.08 <sup>b</sup>	.55	4.03	.50
Job relatedness content	2.68 <sup>bc</sup>	.91	3.65 <sup>ab</sup>	.90	2.42 <sup>ac</sup>	.74
Overall Mean	3.15 <sup>b</sup>	.50	3.57 <sup>ab</sup>	.51	3.20 <sup>a</sup>	.48

<sup>a</sup> Mean for the assessment interview significantly differs from its corresponding mean for the cognitive test

<sup>b</sup> Mean for the assessment interview significantly differs from its corresponding mean for the personality test

<sup>c</sup> Mean for the personality test significantly differs from its corresponding mean for the cognitive test

**Table 25.** Time 2 Data: Procedural Justice Perception Descriptives (Process as a Whole)

SPJS Scale	Process as a Whole	
	Mean	Standard Deviation
Openness	4.30	.50
Treatment	4.37	.51
Communication	4.08	.67
Overall Mean	4.25	.52

### **3.2.1 Extraversion**

For the testing process as a whole, BCL extraversion did not significantly predict applicants' procedural justice perceptions. Thus, hypothesis 1 was not supported by this data. See Table 26 for results. Given the restricted sample size in Time 2 and in order to examine the extent to which relationships between personality variables and procedural justice perceptions differed from Time 1 to Time 2, a series of calculations were conducted based on the method set forth by Cohen and Cohen (1983). A significance test was conducted to determine if each beta coefficient at Time 2 differed from its corresponding beta coefficient at Time 1. For BCL extraversion and perceptions concerning the process as a whole, three betas differed significantly from Time 1: the beta coefficients for openness ( $z = -2.74, p < .010$ ), treatment ( $z = -2.91, p < .01$ ), and the overall mean ( $z = -2.65, p < .05$ ) were lower at Time 2. The same regression analyses were also conducted using the 16PF personality scales. 16PF extraversion did not

**Table 26.** Time 2 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Process as a Whole

BCL Big Five	Procedural Justice Perceptions of the Process as a Whole (beta coefficients)			
	Openness	Treatment	Communication	Overall Mean
Extraversion	.07 <sup>a</sup>	.08 <sup>a</sup>	.10	.09 <sup>a</sup>
Emotional Reactivity	.10	.15 <sup>a</sup>	.09	.12
Agreeableness	.05	-.03 <sup>a</sup>	-.01	.00
Conscientiousness	.06	.08	-.05	.02
Openness to Experience	.08 <sup>a</sup>	.05	.04	.06
R	.12	.18	.11	.13

\* significant at the .05 level

\*\* significant at the .01 level

<sup>a</sup> indicates that this beta coefficient differs significantly from the corresponding Time 1 coefficient.

significantly predict scores on the SPJS scales. See Table 27. For 16PF extraversion and perceptions concerning the process as a whole, the beta coefficient for openness ( $z = -1.84, p < .05$ ) was lower than at Time 1.

For the personality test, BCL extraversion did not significantly predict applicants' procedural justice perceptions. A positive trend emerged between extraversion and three of the SPJS scales (consistency, propriety of questions, and overall mean), but these relationships were not significant. Thus, hypothesis 2a was not supported. See Table 28 for full results. No beta coefficients were significantly different between Time 1 and Time 2. When the same analyses were conducted using the 16PF personality scales, only one significant relationship emerged. Extraversion was positively related to candidates' perceptions of chance to perform concerning the personality test ( $\beta = .40, p < .01$ ). Once again, a positive trend can be seen in the relationships between extraversion and several of the other SPJS scales, including job relatedness, consistency, propriety of questions, job relatedness content and the overall mean, but these relationships are not significant. Thus, when using the 16PF personality data, we find some support for hypothesis 2a. See Table 29. For the relationship between 16Pf extraversion and perceptions concerning the personality test, the beta coefficients for chance to perform ( $z = 2.61, p < .05$ ), propriety of questions ( $z = 4.27, p < .01$ ), job relatedness content ( $z = 1.66, p < .05$ ) and the overall mean ( $z = 3.76, p < .01$ ) were higher at Time 2 than at Time 1.

For the individual assessment interview, BCL extraversion was not significantly related to any of the SPJS scales. A general positive trend emerged between

**Table 27.** Time 2 Data: Regression of Procedural Justice Perception Variables onto 16 PF Big Five for the Process as a Whole

16PF Big Five	Procedural Justice Perceptions of the Process as a Whole (beta coefficients)			
	Openness	Treatment	Communication	Overall Mean
Extraversion	.08 <sup>a</sup>	.02	.14	.05
Anxiety	.07 <sup>a</sup>	.07	.04	.06
Independence	.02	.18	.35 <sup>a</sup>	.23 <sup>a</sup>
Self-Control	.01	.16	.23 <sup>a</sup>	.17
Tough-Mindedness	-.03	-.03	-.06	-.05
R	.10	.17	.30	.20

\* significant at the .05 level

\*\* significant at the .01 level

<sup>a</sup> indicates that this beta coefficient differs significantly from the corresponding Time 1 coefficient.

**Table 28.** Time 2 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Personality Test

Procedural Justice Perceptions of the Personality Test (beta coefficients)							
BCL Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.14	.06	.13	.32	.22	.10	.20
Emotional Reactivity	-.01	.19 <sup>a</sup>	.03	.12	.10	.00	.11 <sup>a</sup>
Agreeableness	-.06	.22	-.05	.06	-.05	-.10	.01
Conscientiousness	.12	.02	.14 <sup>a</sup>	.08	.25	.08	.17
Openness to Experience	-.10	.28	-.03	-.17	-.08	-.06	-.01
R	.17	.29	.18	.33	.33	.15	.27

\* significant at the .05 level

\*\* significant at the .01 level

<sup>a</sup> indicates that this beta coefficient differs significantly from the corresponding Time 1 coefficient.

**Table 29.** Time 2 Data: Regression of Procedural Justice Perception Variables onto 16PF Big Five for the Personality Test

Procedural Justice Perceptions of the Personality Test (beta coefficients)							
16PF Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.27	.05	.40** <sup>a</sup>	.26	.32 <sup>a</sup>	.31 <sup>a</sup>	.38 <sup>a</sup>
Anxiety	.04	-.04	.14 <sup>a</sup>	.03	-.02	.08	.07 <sup>a</sup>
Independence	-.10	-.03	-.07	-.05	-.05	-.02	-.08
Self-Control	.03	-.10	.01	.19	-.05 <sup>a</sup>	.03	.02
Tough- Mindedness	.01	.04	.11	-.04 <sup>a</sup>	.16 <sup>a</sup>	.10 <sup>a</sup>	.11 <sup>a</sup>
R	.25	.10	.41*	.28	.36	.32	.38

\* significant at the .05 level

\*\* significant at the .01 level

<sup>a</sup> indicates that this beta coefficient differs significantly from the corresponding Time 1 coefficient.

extraversion and four of the SPJS scales (consistency, propriety of questions, job relatedness content and overall mean), but these relationships were not significant. Thus, these results provided no support for hypothesis 2b. See Table 30. For the relationship between BCL extraversion and perceptions of the assessment interview, the beta coefficient for chance to perform ( $z = -1.69, p < .05$ ) was significantly lower at Time 2 than at Time 1. When these analyses were conducted using 16PF personality data, a similar pattern emerged. 16PF extraversion did not significantly predict applicants' procedural justice perceptions, however, a positive trend can be seen in the relationships between extraversion and several of the other SPJS scales, including consistency, propriety of questions, job relatedness content and the overall mean. These relationships are not significant, thus hypothesis 2b was not supported. See Table 31 for full results. No beta coefficients were significantly different between Time 1 and Time 2 for the 16PF data.

No significant relationships were found between BCL extraversion and SPJS scales for the cognitive ability test. See Table 32 for full results. For the relationship between BCL extraversion and perceptions of the cognitive test, the beta coefficient for chance to perform ( $z = -1.97, p < .05$ ) was significantly lower at Time 2 than at Time 1. When the 16PF analyses were conducted, extraversion was not related to perceptions. See Table 33. For the relationship between 16PF extraversion and perceptions of the cognitive test, the beta coefficient for information known ( $z = -2.75, p < .01$ ) was significantly lower at Time 2 than at Time 1.



**Table 30.** Time 2 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Individual Assessment Interview

Procedural Justice Perceptions of the Individual Assessment Interview (beta coefficients)

BCL Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.04	.04	.03 <sup>a</sup>	.31	.19	.24	.18
Emotional Reactivity	-.03 <sup>a</sup>	.28 <sup>a</sup>	.11	.06	.01	-.02	.12 <sup>a</sup>
Agreeableness	-.01	.19	.07	.04	.04	.18	.13
Conscientiousness	-.04	.07	-.06	.05	.10	-.12 <sup>a</sup>	-.01
Openness to Experience	.05	.25	.20	-.21	-.13 <sup>a</sup>	.03 <sup>a</sup>	.09
R	.10	.35	.25	.30	.20	.32	.27

\* significant at the .05 level

\*\* significant at the .01 level

<sup>a</sup> indicates that this beta coefficient differs significantly from the corresponding Time 1 coefficient.

**Table 31.** Time 2 Data: Regression of Procedural Justice Perception Variables onto 16PF Big Five for the Individual Assessment Interview

Procedural Justice Perceptions of the Individual Assessment Interview (beta coefficients)							
16PF Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.02	.00	.05	.26	.23	.10	.14
Anxiety	.11 <sup>a</sup>	-.07	.02	-.03	.01	-.03	.00
Independence	.10	-.07	.00	-.10	-.10 <sup>a</sup>	.02	-.02
Self-Control	.01	-.12	-.16	.16	-.06	-.14	-.10
Tough- Mindedness	-.06	.02	-.04	-.10 <sup>a</sup>	.08	.02 <sup>a</sup>	-.02
R	.15	.12	.19	.29	.26	.20	.18

\* significant at the .05 level

\*\* significant at the .01 level

<sup>a</sup> indicates that this beta coefficient differs significantly from the corresponding Time 1 coefficient.

**Table 32.** Time 2 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Cognitive Test

Procedural Justice Perceptions of the Cognitive Test (beta coefficients)							
BCL Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.07	-.17	.02 <sup>a</sup>	.25	.03	.05	.05 <sup>a</sup>
Emotional Reactivity	-.04	.27 <sup>a</sup>	.18 <sup>a</sup>	.01	.00	.20 <sup>a</sup>	.18 <sup>a</sup>
Agreeableness	.03	.04	-.09	.08	-.17 <sup>a</sup>	.03	-.03 <sup>a</sup>
Conscientiousness	-.06 <sup>a</sup>	.09 <sup>a</sup>	-.06	.08	.08	-.03	.02
Openness to Experience	-.07	.14	.00 <sup>a</sup>	-.10	-.02	-.14	-.03
R	.11	.28	.24	.23	.18	.24	.21

\* significant at the .05 level

\*\* significant at the .01 level

<sup>a</sup> indicates that this beta coefficient differs significantly from the corresponding Time 1 coefficient.

**Table 33.** Time 2 Data: Regression of Procedural Justice Perception Variables onto 16PF Big Five for the Cognitive Test

Procedural Justice Perceptions of the Cognitive Test (beta coefficients)							
16PF Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.07	-.13 <sup>a</sup>	.13	.29	.07	.21 <sup>a</sup>	.15
Anxiety	.28 <sup>a</sup>	-.01	.44** <sup>a</sup>	.16 <sup>a</sup>	.15	.29 <sup>a</sup>	.35 <sup>a</sup>
Independence	.14 <sup>a</sup>	-.05 <sup>a</sup>	.09 <sup>a</sup>	-.09	.18 <sup>a</sup>	-.06	.05 <sup>a</sup>
Self-Control	.25 <sup>a</sup>	-.09	.03	.19	.07	.05	.10 <sup>a</sup>
Tough- Mindedness	-.17	.16 <sup>a</sup>	.02	-.02	.01	.12 <sup>a</sup>	.04
R	.35	.20	.46**	.34	.23	.37	.38

\* significant at the .05 level

\*\* significant at the .01 level

<sup>a</sup> indicates that this beta coefficient differs significantly from the corresponding Time 1 coefficient.

### 3.2.2 Emotional Reactivity/ Anxiety

For the testing process as a whole, BCL emotional reactivity did not predict applicants' procedural justice perceptions. Thus, hypothesis 3 was not supported by this data. See Table 26 for complete results. For the relationship between BCL emotional reactivity and perceptions of the process as a whole, the beta coefficient for treatment ( $z = 1.68, p < .05$ ) was significantly higher at Time 2 than at Time 1. The same analyses were also conducted using the 16PF personality scales. 16PF anxiety did not significantly predict scores on the SPJS scales. See Table 27. For the relationship between 16PF anxiety and perceptions of the process as a whole, the beta coefficient for Openness ( $z = 1.77, p < .05$ ) was significantly higher at Time 1 than at Time 2.

For the personality test BCL emotional reactivity did not significantly predict applicants' procedural justice perceptions. Thus, hypothesis 4a was not supported. See Table 28. For the relationship between BCL emotional reactivity and perceptions of the personality test, the beta coefficients for information known ( $z = 1.96, p < .05$ ) and the overall mean ( $z = 2.99, p < .01$ ) were significantly higher at Time 2 than at Time 1. When the same analyses were conducted using the 16PF personality scales, anxiety did not predict scores on the SPJS scales. See Table 29 for full results. For the relationship between 16PF anxiety and perceptions of the personality test, the beta coefficients for chance to perform ( $z = 1.94, p < .05$ ) and the overall mean ( $z = 2.09, p < .05$ ) were significantly higher at Time 2 than at Time 1.

For the individual assessment interview, BCL emotional reactivity was not significantly related to any of the SPJS scales. Thus, these results provided no support for hypothesis 4b. See Table 30 for full results. For the relationship between BCL

emotional reactivity and perceptions of the assessment interview, the beta coefficients for job relatedness ( $z = 1.88, p < .05$ ), information know ( $z = 2.47, p < .05$ ), and the overall mean ( $z = 3.37, p < .01$ ) were significantly higher at Time 2 than at Time 1. When these analyses were conducted using 16PF personality data 16PF anxiety did not predict applicants' procedural justice perceptions. See Table 31. For the relationship between 16PF anxiety and perceptions of the personality test, the beta coefficient for job relatedness ( $z = 1.65, p < .05$ ) was significantly higher at Time 2 than at Time 1.

No significant relationships were found between BCL emotional reactivity and SPJS scales for the cognitive ability test. Thus, hypothesis 4c was not supported. See Table 32. For the relationship between BCL emotional reactivity and perceptions of the cognitive test, the beta coefficients for information known ( $z = 2.25, p < .05$ ), chance to perform ( $z = 2.11, p < .05$ ), job relatedness content ( $z = 1.99, p < .05$ ), and the overall mean ( $z = 3.47, p < .01$ ) were significantly higher at Time 2 than at Time 1. When the 16PF analyses were conducted, a relationship between anxiety and candidates' perceptions of chance to perform for the cognitive test emerged ( $\beta = .44, p < .01$ ), a result which contradicts hypothesis 4c. Hypothesis 4c suggested that anxiety would be negatively related to perceptions of the cognitive test. See Table 33 for full results. For the relationship between 16PF anxiety and perceptions of the cognitive test, the beta coefficients for job relatedness ( $z = 2.60, p < .05$ ), chance to perform ( $z = 4.47, p < .01$ ), consistency ( $z = 2.42, p < .05$ ), job relatedness content ( $z = 4.18, p < .01$ ) and the overall mean ( $z = 6.55, p < .01$ ) were significantly higher at Time 2 than at Time 1.

### 3.2.3 Agreeableness/ Independence

For the testing process as a whole, BCL agreeableness did not significantly predict applicants' procedural justice perceptions. Thus, hypothesis 5 was not supported. See Table 26 for complete results. For the relationship between BCL agreeableness and perceptions of the process as a whole, the beta coefficient for treatment ( $z = -1.96, p < .01$ ) was significantly lower at Time 2 than at Time 1. The same analyses were also conducted using the 16PF personality scales. 16PF independence did not significantly predict scores on the SPJS scales; although it appears that independence would have been significantly related to communication had the sample size been larger. See Table 27. For the relationship between 16PF independence and perceptions of the process as a whole, the beta coefficients for communication ( $z = 3.21, p < .01$ ) and the overall mean ( $z = 2.31, p < .05$ ) were significantly higher at Time 2 than at Time 1.

For the personality test, BCL agreeableness did not predict applicants' procedural justice perceptions. Thus, hypothesis 6a was not supported. See Table 28 for full results. No beta coefficients were significantly different between Time 1 and Time 2. When the same analyses were conducted using the 16PF personality scales, no significant relationships emerged. See Table 29. No beta coefficients were significantly different between Time 1 and Time 2.

For the individual assessment interview, BCL agreeableness was not significantly related to any of the SPJS scales. Thus, these results provided no support for hypothesis 6b. See Table 30 for full results. No beta coefficients were significantly different between Time 1 and Time 2. When these analyses were conducted using 16PF personality data 16PF independence was not predictive of applicants' procedural justice

perceptions. See Table 31. For the relationship between 16PF independence and perceptions of the assessment interview, the beta coefficient for propriety of questions ( $z = -2.30, p < .05$ ) was significantly lower at Time 2 than at Time 1.

No significant relationships were found between BCL agreeableness and SPJS scales for the cognitive ability test. Thus, hypothesis 6c was not supported. See Table 32. For the relationship between BCL agreeableness and perceptions of the cognitive test, the beta coefficients for propriety of questions ( $z = -2.18, p < .05$ ) and the overall mean ( $z = -1.92, p < .05$ ) were significantly lower at Time 2 than at Time 1. When the 16PF analyses were conducted, no relationship between independence and candidates' perceptions emerged. See Table 33 for full results. For the relationship between 16PF independence and perceptions of the cognitive test, the beta coefficients for job relatedness ( $z = 1.77, p < .05$ ), chance to perform ( $z = 1.79, p < .05$ ), propriety of questions ( $z = 3.70, p < .01$ ) and the overall mean ( $z = 1.89, p < .05$ ) were significantly higher at Time 2 than at Time 1, while the beta coefficient for information known ( $z = -1.72, p < .05$ ) was significantly lower at Time 2.

### **3.2.4 Conscientiousness/ Self-Control**

For the testing process as a whole, BCL conscientiousness was not predictive of applicants' procedural justice perceptions. See Table 26. No beta coefficients were significantly different between Time 1 and Time 2. The same analyses were also conducted using the 16PF personality scales. 16PF self-control did not predict scores on the SPJS scales. See Table 27 for complete results. For the relationship between 16PF self-control and perceptions of the process as a whole, the beta coefficient for communication ( $z = 2.40, p < .05$ ) was significantly higher at Time 2 than at Time 1.



For the personality test, BCL conscientiousness did not significantly predicted applicants' procedural justice perceptions. Thus, hypothesis 7a was not supported. See Table 28 for results. For the relationship between BCL conscientiousness and perceptions of the personality test, the beta coefficient for chance to perform ( $z = 1.77, p < .05$ ) was significantly higher at Time 2 than at Time 1. When the same analyses were conducted using the 16PF personality scales, 16PF self-control did not predict perceptions. See Table 29. For the relationship between 16PF self-control and perceptions of the personality test, the beta coefficient for propriety of questions ( $z = -2.31, p < .05$ ) was significantly lower at Time 2 than at Time 1.

For the individual assessment interview, BCL conscientiousness was not significantly related to any of the SPJS scales. Thus, these results provided no support for hypothesis 7b. See Table 30 for full results. For the relationship between BCL conscientiousness and perceptions of the assessment interview, the beta coefficient for job relatedness content ( $z = -1.90, p < .05$ ) was significantly lower at Time 2 than at Time 1. When these analyses were conducted using 16PF personality data 16PF self-control did not significantly predict applicants' procedural justice perceptions. See Table 31 for full results. No beta coefficients were significantly different between Time 1 and Time 2.

No significant relationships were found between BCL conscientiousness and SPJS scales for the cognitive ability test. Thus, hypotheses 7c was not supported. See Table 32. For the relationship between BCL conscientiousness and perceptions of the cognitive test, the beta coefficient for job relatedness ( $z = -2.18, p < .05$ ) was significantly lower at Time 2 than at Time 1, while the beta coefficient for information known ( $z = 2.33, p < .05$ ) was significantly higher at Time 2. When the 16PF analyses were

conducted, no relationship between self-control and candidates' perceptions were found. See Table 33 for full results. For the relationship between 16PF self-control and perceptions of the cognitive test, the beta coefficients for job relatedness ( $z = 1.87, p < .05$ ) and the overall mean ( $z = 1.70, p < .05$ ) were significantly higher at Time 2 than at Time 1.

### **3.2.5 Openness to Experience/ Tough-mindedness**

For the testing process as a whole, BCL openness did not significantly predict applicants' procedural justice perceptions. Thus, a hypothesis 8 was not supported by this data. See Table 26 for complete results. For the relationship between BCL openness and perceptions of the process as a whole, the beta coefficient for openness ( $z = 1.76, p < .05$ ) was significantly higher at Time 2 than at Time 1. The same analyses were also conducted using the 16PF personality scales. 16PF tough-mindedness did not predict scores on the SPJS scales. See Table 27. No beta coefficients were significantly different between Time 1 and Time 2.

For the personality test, BCL openness was not significantly predictive of applicants' procedural justice perceptions. Thus, hypothesis 9a was not supported. See Table 28 for full results. No beta coefficients were significantly different between Time 1 and Time 2.

When the same analyses were conducted using the 16PF personality scales, tough-mindedness was not related to candidates' perceptions concerning the personality test. See Table 29. For the relationship between 16PF tough-mindedness and perceptions of the personality test, the beta coefficients for propriety of questions ( $z = 3.37, p < .01$ ), job relatedness content ( $z = 2.69, p < .01$ ) and the overall mean ( $z = 2.83, p < .01$ ) were

significantly higher at Time 2 than at Time 1, while the beta coefficient for consistency ( $z = -2.75, p < .01$ ) was significantly lower at Time 2.

For the individual assessment interview, BCL openness was not significantly related to any of the SPJS scales. Thus, these results provided no support for hypothesis 9b. See Table 30. For the relationship between BCL openness and perceptions of the assessment interview, the beta coefficients for propriety of questions ( $z = -2.73, p < .01$ ) and job relatedness content ( $z = -2.31, p < .05$ ) were significantly lower at Time 2 than at Time 1. When these analyses were conducted using 16PF personality data, tough-mindedness did not predict applicants' procedural justice perceptions. See Table 31 for full results. For the relationship between 16PF tough-mindedness and perceptions of the assessment interview, the beta coefficient for job relatedness content ( $z = 2.54, p < .05$ ) was significantly higher at Time 2 than at Time 1, while the beta coefficient for consistency ( $z = -4.03, p < .05$ ) was significantly lower at Time 2 than at Time 1.

No significant relationships were found between BCL openness and SPJS scales for the cognitive ability test. Thus, hypothesis 9c was not supported. See Table 32 for full results. For the relationship between BCL openness and perceptions of the cognitive test, the beta coefficient for chance to perform ( $z = 1.89, p < .05$ ) was significantly higher at Time 2 than at Time 1. When the 16PF analyses were conducted, no relationship between tough-mindedness and candidates' perceptions for the cognitive test emerged. See Table 33. For the relationship between 169PF tough-mindedness and perceptions of the cognitive test, the beta coefficients for information known ( $z = 3.29, p < .01$ ) and job relatedness content ( $z = 1.90, p < .05$ ) were significantly higher at Time 2 than at Time 1.

Hypotheses 9a, 9b and 9c also hypothesized that the relationship between openness to experience and procedural justice perceptions would be moderated by past experience with similar selection measures. In order to test these hypotheses, the interaction variables previously created using the three past experience items were used. However, when the regression analyses were conducted, none of the interaction variables were successful in predicting applicant's scores on any of the SPJS scales. Thus, hypotheses 9a, 9b, and 9c were not supported.

### **3.2.6 Other Hypotheses**

Hypotheses 10-11c that selection process outcome will be positively related to perceptions of procedural justice were tested by using logistic regression to regress scores on the SPJS scales onto selection process outcome (i.e., offer vs. no offer). Selection process outcome was significantly related to only one SPJS scale. Outcome predicted applicants' perceptions of treatment for the process as a whole ( $R = .26, p < .05$ ), such that those who were hired had more positive perceptions. Although selection process outcome did not predict any other SPJS variables, there was a general positive trend. That is, people who were hired seemed to have higher perceptions. See Table 34 for full results.

It was also hypothesized that when applicant perceptions are measured post outcome, the Big Five personality factors would be predictive of procedural justice perceptions above and beyond the effects of the selection process outcome. Since neither selection process outcome nor the Big Five were very successful in predicting SPJS scales, one can assume that these hypotheses are not supported. However, for informational purposes, analyses were conducted regressing scores on the SPJS measured

**Table 34.** Time 2 Data: Logistic Regression using Selection Process Outcome to Predict SPJS Variables

SPJS Variable	Selection Process Outcome (R value)
<u>Process as a Whole</u>	
Openness	.10
Treatment	.26*
Communication	.13
Overall Mean	.17
<u>Personality Test</u>	
Job relatedness	.06
Information known	.16
Chance to perform	.04
Consistency	.24
Propriety of questions	.03
Job relatedness content	.00
Overall Mean	.00
<u>Assessment Interview</u>	
Job relatedness	.21
Information known	.14
Chance to perform	.03

**Table 34 (continued)**

SPJS Variable	Selection Process Outcome (R value)
<u>Assessment Interview (continued)</u>	
Consistency	.19
Propriety of questions	.13
Job relatedness content	.06
Overall Mean	.08
<u>Cognitive Test</u>	
Job relatedness	.18
Information known	.00
Chance to perform	.12
Consistency	.22
Propriety of questions	.10
Job relatedness content	.12
Overall Mean	.19

Note: 0 = No offer

1 = Offer

\* significant at the .05 level

post-outcome onto the BCL personality scores for the five factors while controlling for the effects of selection process outcome. This was also done using the 16PF personality scores. The results can be seen in Tables 35 through 42. In general, beta coefficients remained relatively unchanged when selection process outcome was controlled for. In two instances personality scales were able to significantly predict SPJS scores above and beyond the effects of selection process outcome. For the personality test, 16 PF extraversion significantly predicted applicants' perceptions of chance to perform when selection process outcome was controlled for ( $\beta = .39, p < .01$ ). Also, for the cognitive test, 16PF anxiety was predicted applicants' perceptions of chance to perform, controlling for selection process outcome ( $\beta = .43, p < .01$ ).

A series of paired comparison t-tests were conducted in order to examine whether or not scores on the SPJS scale vary based on the type of selection measure. Scores on four SPJS scales significantly differed between the assessment interview and the cognitive test. On job relatedness ( $t = 4.09, p < .01$ ), chance to perform ( $t = 8.47, p < .01$ ), and job relatedness content ( $t = 10.25, p < .01$ ) scales, as well as on the overall mean SPJS score ( $t = 8.14, p < .01$ ), applicants' perceptions were higher for the assessment interview than for the cognitive test. These results support Hypothesis 12a. Scores on five SPJS scales significantly differed between the assessment interview and the personality test. On job relatedness ( $t = 6.30, p < .01$ ), chance to perform ( $t = 8.74, p < .01$ ), propriety of questions ( $t = 2.87, p < .01$ ), job relatedness content ( $t = 8.14, p < .01$ ) scales, as well as on the overall mean SPJS score ( $t = 7.82, p < .01$ ), applicants' perceptions were higher for the assessment interview than for the personality test. These results also support Hypothesis 12a. The only scale on which scores differed between

**Table 35.** Time 2 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Process as a Whole Controlling for Selection Process Outcome

BCL Big Five	Procedural Justice Perceptions of the Process as a Whole (beta coefficients)			
	Openness	Treatment	Communication	Overall Mean
Extraversion	.07	.09	.11	.10
Emotional Reactivity	.10	.17	.10	.13
Agreeableness	.06	.00	.01	.02
Conscientiousness	.06	.09	-.05	.02
Openness to Experience	.10	.10	.07	.09
R	.02	.04	.01	.02

\* significant at the .05 level

\*\* significant at the .01 level



**Table 36.** Time 2 Data: Regression of Procedural Justice Perception Variables onto 16 PF Big Five for the Process as a Whole Controlling for Selection Process Outcome

16PF Big Five	Procedural Justice Perceptions of the Process as a Whole (beta coefficients)			
	Openness	Treatment	Communication	Overall Mean
Extraversion	.09	.00	.13	.03
Anxiety	.04	.02	.01	.02
Independence	.01	.13	.32	.20
Self-Control	-.01	.11	.21	.14
Tough-Mindedness	-.04	-.06	-.08	-.07
R	.01	.02	.08	.03

\* significant at the .05 level

\*\* significant at the .01 level

**Table 37.** Time 2 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Personality Test Controlling for Selection Process Outcome

Procedural Justice Perceptions of the Personality Test (beta coefficients)							
BCL Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.14	.05	.14	.31	.22	.10	.20
Emotional Reactivity	-.01	.18	.02	.14	.10	.00	.11
Agreeableness	-.06	.21	-.06	.08	-.05	-.10	.01
Conscientiousness	.12	.01	.13	.09	.26	.08	.17
Openness to Experience	-.09	.26	-.04	-.13	-.07	-.07	-.02
R	.03	.07	.03	.11	.11	.02	.07

\* significant at the .05 level

\*\* significant at the .01 level

**Table 38.** Time 2 Data: Regression of Procedural Justice Perception Variables onto 16PF Big Five for the Personality Test Controlling for Selection Process Outcome

Procedural Justice Perceptions of the Personality Test (beta coefficients)							
16PF Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.28	.07	.39**	.28	.33	.30	.38
Anxiety	.03	.00	.16	-.03	-.04	.10	.07
Independence	-.11	.00	-.06	-.10	-.06	-.01	-.08
Self-Control	.02	-.07	.03	.14	-.06	.04	.02
Tough- Mindedness	.00	.07	.13	-.07	.15	.11	.11
R	.06	.01	.17*	.09	.13	.10	.14

\* significant at the .05 level

\*\* significant at the .01 level

**Table 39.** Time 2 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Individual Assessment Interview Controlling for Selection Process Outcome

Procedural Justice Perceptions of the Individual Assessment Interview (beta coefficients)							
BCL Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.03	.04	.03	.30	.18	.23	.18
Emotional Reactivity	.00	.27	.11	.08	.03	-.01	.13
Agreeableness	.01	.18	.07	.06	.05	.18	.14
Conscientiousness	-.03	.07	-.06	.06	.11	-.11	.00
Openness to Experience	.09	.23	.20	-.17	-.11	.04	.11
R	.01	.11	.06	.09	.04	.10	.08

\* significant at the .05 level

\*\* significant at the .01 level

**Table 40.** Time 2 Data: Regression of Procedural Justice Perception Variables onto 16PF Big Five for the Individual Assessment Interview Controlling for Selection Process Outcome

Procedural Justice Perceptions of the Individual Assessment Interview (beta coefficients)							
16PF Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.00	.01	.05	.29	.25	.12	.15
Anxiety	.05	-.04	.02	-.09	-.03	-.06	-.03
Independence	.06	-.05	.00	-.14	-.03	-.01	-.04
Self-Control	-.04	-.10	-.16	.12	-.09	-.16	-.12
Tough- Mindedness	-.09	.04	-.04	-.13	.07	.01	-.04
R	.02	.01	.04	.10	.07	.05	.04

\* significant at the .05 level

\*\* significant at the .01 level

**Table 41.** Time 2 Data: Regression of Procedural Justice Perception Variables onto BCL Big Five for the Cognitive Test Controlling for Selection Process Outcome

Procedural Justice Perceptions of the Cognitive Test (beta coefficients)							
BCL Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.06	-.17	.01	.24	.03	.05	.04
Emotional Reactivity	-.01	.27	.19	.04	.02	.21	.20
Agreeableness	.05	.04	-.08	.09	-.16	.04	-.01
Conscientiousness	-.06	.09	-.05	.09	.08	-.03	.02
Openness to Experience	-.04	.14	.03	-.07	.00	-.13	.00
R	.01	.08	.06	.05	.03	.06	.05

\* significant at the .05 level

\*\* significant at the .01 level

**Table 42.** Time 2 Data: Regression of Procedural Justice Perception Variables onto 16PF Big Five for the Cognitive Test Controlling for Selection Process Outcome

Procedural Justice Perceptions of the Cognitive Test (beta coefficients)							
16PF Big Five	Job Relatedness	Information Known	Chance to Perform	Consistency	Propriety of Questions	Job Relatedness Content	Overall Mean
Extraversion	.10	-.14	.14	.32	.08	.22	.17
Anxiety	.24	.00	.43**	.12	.13	.29	.33
Independence	.11	-.04	.09	-.13	.17	-.06	.03
Self-Control	.21	-.08	.02	.15	.05	.05	.08
Tough- Mindedness	-.19	.16	.02	-.04	.00	.12	.03
R	.10	.04	.20*	.11	.05	.13	.12

\* significant at the .05 level

\*\* significant at the .01 level

the cognitive test and the personality test was job relatedness content ( $t = -2.45, p < .01$ ) with applicant's perceptions being higher for the personality test than for the cognitive test. Thus, hypothesis 12b was not supported.

Paired sample t-tests were also conducted in order to determine whether or not procedural justice perceptions of the selection process as a whole differed significantly from perceptions of the individual selection measures. Applicants' perceptions of the process as a whole were significantly more positive than were perceptions for the personality test ( $t = 16.05, p < .01$ ), the assessment interview ( $t = 11.05, p < .01$ ) and the cognitive test ( $t = 17.21, p < .01$ ).

As with the Time 1 data there was a strong relationship between applicants' procedural justice perceptions for a particular measure and their self-assessed performance on that measure. Self-assessed performance was measured again at Time 2. For the personality measure, applicants' self-assessed performance was correlated with perceptions of job relatedness ( $r = .26, p < .05$ ), chance to perform ( $r = .33, p < .05$ ), consistency ( $r = .29, p < .05$ ), propriety of questions ( $r = .47, p < .01$ ), job relatedness content ( $r = .29, p < .05$ ) and the overall SPJS mean ( $r = .43, p < .01$ ). For the assessment interview, self-assessed performance was correlated with perceptions of job relatedness ( $r = .28, p < .05$ ), information known ( $r = .29, p < .05$ ), chance to perform ( $r = .37, p < .01$ ), consistency ( $r = .25, p < .05$ ), propriety of questions ( $r = .39, p < .01$ ), job relatedness content ( $r = .24, p < .05$ ), and the overall SPJS mean ( $r = .45, p < .01$ ). For the cognitive test, self-assessed performance was correlated with perceptions of job relatedness ( $r = .31, p < .05$ ), chance to perform ( $r = .35, p < .01$ ), propriety of questions



( $r = .24, p < .05$ ), and the overall SPJS mean ( $r = .32, p < .01$ ). See Table 43 for complete results. Again, because it is unclear based on the literature whether performance perceptions should be considered an antecedent or an outcome of procedural justice perceptions and because no hypotheses were made concerning this variable, no regression analyses were conducted.

In addition, self-assessed performance on the personality test was significantly correlated with BCL extraversion ( $r = .29, p < .05$ ) and 16PF extraversion ( $r = .38, p < .01$ ). Self-assessed performance on the assessment interview was significantly correlated with BCL extraversion ( $r = .30, p < .05$ ) and 16PF extraversion ( $r = .24, p < .05$ ). No significant relationships existed between self-assessed performance on the cognitive test and personality variables.

A series of analyses were conducted in order to determine whether or not procedural justice perceptions at Time 2 varied based on any of the demographic and background variables. No differences were found between minorities and nonminorities on any of the SPJS scales. One gender difference was found. Males had higher perceptions of the job relatedness of the cognitive measure than did females ( $t = 2.68, p < .01$ ). Age was correlated only with candidates' perceptions of the information known for the assessment interview ( $r = .25, p < .05$ ). Years of education was not correlated with any of the SPJS variables. The Time 2 SPJS data was also examined for possible differences between psychologists who administered the tests and conducted the individual assessment interviews. No differences were found on any of the SPJS scales.

**Table 43.** Time 2 Data: Correlations between Procedural Justice Perceptions and Self-Assessed Performance

SPJS Scale	Self-Assessed Performance		
	Personality Test	Assessment Interview	Cognitive Test
<u>Personality Test</u>			
Job relatedness	.26*		
Information known	.10		
Chance to perform	.33*		
Consistency	.29*		
Propriety of questions	.47**		
Job relatedness content	.29*		
Overall Mean	.43**		
<u>Assessment Interview</u>			
Job relatedness		.28*	
Information known		.29*	
Chance to perform		.37**	
Consistency		.25*	
Propriety of questions		.39**	
Job relatedness content		.24*	
Overall Mean		.45**	

**Table 43 (continued)**

SPJS Scale	Self-Assessed Performance		
	Personality Test	Assessment Interview	Cognitive Test
<u>Cognitive Test</u>			
Job relatedness			.31*
Information known			.02
Chance to perform			.35**
Consistency			.21
Propriety of questions			.24*
Job relatedness content			.09
Overall Mean			.32**

\* significant at the .05 level

\*\* significant at the .01 level

Analyses were also conducted in order to determine the extent to which candidates who chose to complete the Time 2 survey differed from those who chose not to complete the Time 2 survey. In terms of personality, the two groups differed only on 16PF tough-mindedness, with those who completed Time 2 having lower scores ( $t = 2.18, p < .05$ ). In terms of procedural justice perceptions, the group who completed the Time 2 survey had higher perceptions of job relatedness content for the assessment interview ( $t = -2.48, p < .01$ ) and information known for the cognitive test ( $t = -3.12, p < .01$ ).

## **CHAPTER 4**

### **DISCUSSION**

The potential for discovery in the area of applicant perceptions is great. There remain a number of unexplored possibilities for understanding how applicants perceive employment testing and the determinants of those perceptions. Examination of the effects of individual differences, particularly personality, provides an excellent opportunity to further understand applicant perceptions of justice and to determine to what extent such perceptions are beyond the control of selection system administrators, organizations, and test developers. The current study examined the relationship between personality and procedural justice perceptions in a field setting using actual job applicants as part of a genuine selection system.

#### **4.1 The Role of Extraversion**

When procedural justice perceptions were measured immediately following testing, extraversion was found to be positively related to a number of perceptions. Applicants' extraversion scores significantly predicted their perceptions of the selection process as a whole, the personality test and the assessment interview. In particular, extraversion was positively related to perceptions of treatment concerning the process as a whole, perceptions of consistency and propriety of questions for the personality test, and perceptions of job relatedness, chance to perform, consistency, and propriety of questions for the assessment interview. These results support a number of proposed

hypotheses. It was expected that extraverts would have positive perceptions of the process as a whole, the personality test, and the assessment interview.

Relationships were generally stronger when extraversion was measured using the Business Checklist as opposed to the 16 PF. When procedural justice perceptions were measured after the selection process outcome was known, very few significant relationships emerged between extraversion and procedural justice perception scales. This can largely be attributed to a small sample size. However, with the exception of the relationships found for the process as a whole, the pattern and size of the beta coefficients are very similar to what was found with the Time 1 data, with some Time 2 coefficients actually higher than those found for Time 1, but not significantly so.

These results suggest that extraversion may be an important determinant of applicants' procedural justice perceptions, particularly concerning personality measures, interviews, and the general testing process as a whole. The suggestion is that extraverts will, on average, have more positive perceptions of the selection process as well as of specific measures used during the process. These results raise an interesting question. Why does extraversion seem to be the personality variable that has an impact on applicants' perceptions of selection measures? The first clue lies in the nature of the measures. Extraversion seemed to make a difference in perceptions not of all selection tests administered, but in perceptions of the personality test and the assessment interview. These are measures designed, in part, to measure extraversion itself. If one assumes that extraverts are aware of their extraversion and that they are aware that this is one of the characteristics being measured, then it stands to reason that they can expect to do well on

both the personality test and the assessment interview. In fact, upon further examination of the data, one can see that in fact extraversion is highly correlated with self-assessed performance, both at Time 1 and Time 2. That is, extraverts come away from both the personality test and the assessment interview with more positive perceptions about how they performed than do introverts. This type of self-serving bias is discussed by Chan and Schmitt (2004). They hypothesize that self-serving biases are one of the main determinants of applicant perceptions of selection measures. It may be that extraversion affects candidates' perceptions of how well they perform, and that perception, in turn, affects perceptions of procedural justice. Indeed, an interesting, but unexpected result of this study was the strong relationship between applicants' procedural justice perceptions of each measure and their self-assessed performance on that measure. The applicant perception literature has not been consistent in the way that the role of self-assessed performance is conceptualized. Researchers such as Chan et al. (1998a, 1998b, 2004) suggest that applicant perceptions of test fairness and job relevance are influenced by perceived performance, thus categorizing self-assessed performance as an antecedent to applicant perceptions. In contrast, Hausknecht, Day and Thomas' (2004) "Updated Theoretical Model of Applicant Reactions to Selection" lists self-assessed procedure performance as an outcome of applicant perceptions. In their meta-analytic review, they found an estimated population correlation of .53 between procedural justice perceptions and self-assessed performance. While the current study found a strong pattern of relationships between procedural justice perceptions and self-assessed performance for

all three measures and at both Time 1 and Time 2, no conclusions were drawn concerning causal direction.

According to the psychologists who administered the selection measures during this study, there is another possible explanation for extraverts' more positive perceptions regarding procedural justice. When they were interviewed individually, they each psychologist indicated that extraverts often behave differently than do introverts during the selection process. Many of them noted that extraversion is the characteristic of candidates which is easiest to assess on sight, without accessing the personality results. The psychologists noted that extraverts ask more questions during testing, volunteer more information during the assessment interview, and generally seem more at ease with the selection process as a whole. Thus, it is possible that extraverts are having more positive interpersonal interactions with testing personnel and that this results in more positive perceptions. Future applied research should attempt to provide more information as to the mechanism by which extraversion impacts procedural justice perceptions. Is the effect due to a self-serving bias, with extraverts forming positive perceptions of their performance on measures which involve interpersonal interaction or the assessment of personality, or is the effect due to specific behaviors that extraverts engage in during selection processes?

Theoretically, these results may fill a gap in the applicant perception literature. In a recent review article Hausknecht, Day and Thomas (2004) outlined an updated theoretical model of applicant reactions to selection. This model posits four categories of antecedents to applicant reactions. These are person characteristics, perceived procedure



characteristics, job characteristics, and factors associated with the organizational context. Personality is discussed as one of the person characteristics which may influence applicant perceptions. However, in gathering data for the meta-analytic portion of their review, the authors found that neuroticism (emotional reactivity) and conscientiousness were the most frequently investigated personality characteristics as possible predictors of procedural justice perceptions. The relationships reported were minimal with an estimated population correlation of  $-.05$  for neuroticism and  $.09$  for conscientiousness. These results closely approximate the Time 1 findings for these two variables in the current study. However, the current study contributes significantly to the applicant perception literature by investigating all of the Big Five factors of personality as potential antecedents, as well as by identifying extraversion as a variable which should be given further attention by researchers, particularly when applicants are undergoing a personality measure and/or an assessment interview.

In a practical sense, these results also have interesting implications. As discussed earlier, the effect of applicant perceptions on the utility of selection processes is a major cause for concern. Applicant perceptions have the potential to impact both applicant pursuit of and acceptance of job offers (Smither et al., 1993). This may have serious negative consequences for the organization, including a reduced applicant pool and low acceptance rates (Boudreau & Rynes, 1985). Spillover effects and the possibility of litigation are additional causes for concern. For these reasons, it is important that organizations consider applicants' reactions to their selection processes and the measures used during those processes. It is a given that certain aspects of the testing process and of

the tests themselves have an impact on applicant perceptions of procedural justice. It follows that there are certainly steps that organizations can take to improve perceptions. For example, they can improve communication between the applicant and the administrator or they can strive to make the test content appear more job-related. These are things that the organization and/or the hiring manager can control. However, it appears that personality traits of the applicants, such as extraversion, may also account for a significant amount of variance in applicant perceptions. This study can help guide organizations. It will tell them what they cannot control. That is, it will help organizations set reasonable goals for improving procedural justice perceptions.

It may also help organizations target their efforts to improve applicant perceptions since recent models suggest that the extent to which organizations satisfy the procedural justice rules can have an effect on applicants' perceptions of procedural justice (Ryan and Ployhart, 2000). If an organization is familiar with the "typical applicant" for a particular job class, improvement efforts can be aimed at reducing the negative perceptions that are associated with that applicant's personality traits. For example, suppose a company regularly hires individuals to fill computer programming positions and personality tests have shown that the applicants for these positions are generally introverted. Because introverts generally have lower perceptions of treatment at the test site, the organization may want to focus their efforts on improving this aspect of the testing process.

Administrators could be specifically trained to ensure that the applicants are treated with the utmost respect and consideration. The test administrator might also want to take some extra time to explain to applicants how personality tests are related to job

performance, to explain why certain questions that may seem personal are important to the process, and ensure applicants that each person undergoes the same testing procedure. This could help improve introverts' negative perceptions of the job relatedness, propriety of questions and consistency associated with a particular measure.

#### **4.2 Other Personality Variables**

Other personality variables were related to various procedural justice perception scales when perceptions were measured following testing, but few patterns emerged. Emotional reactivity negatively predicted applicants' perceptions of the job relatedness and job relatedness content of the assessment interview. Agreeableness positively predicted perceptions concerning information known on the personality test. Conscientiousness was positively predictive of propriety of questions for the personality test and consistency for the assessment interview. Openness to experience was positively related to information known for the personality test, job relatedness content for the assessment interview and information known on the cognitive test. However, it was negatively related to consistency for the personality test, consistency for the assessment interview and consistency for the cognitive test. This pattern of results suggests that applicants who score highly on openness to experience perceive less consistency in selection measures. This is contrary to expectations. It was hypothesized that openness would be positively related to procedural justice perceptions.

When perceptions were measured after the selection process outcome was known, few of the above relationships remained intact. Surprisingly, the 16PF anxiety variable had a strong positive relationship to applicants' perceptions of chance to perform on the

cognitive test. This beta coefficient represented the greatest difference between Time 1 and Time 2 regression results. This may be because in retrospect applicants consider the cognitive test the most objective of the selection measures. It is generally agreed upon that cognitive tests serve as a relatively objective measure and perhaps for people who are anxious and insecure, this measure provided them with what they felt was their best chance to prove themselves. None of the other personality variables significantly predicted procedural justice perceptions at Time 2.

### **4.3 Differential Results for Personality Measures**

When the results for the personality variables from the Business Check List and the 16PF are compared, it is clear that the relationships were generally stronger when personality was measured using the BCL as opposed to the 16 PF. These differences may be due to a number of factors. One reason that results may be different is that the 16PF was originally developed as a clinical assessment tool, whereas the BCL was specifically developed for use in a business setting. Thus, the BCL may be a more sensitive and appropriate test for use in the current applied setting.

Item content may also have an impact on the consistency of results. Schwarz and colleagues (e.g., Schwarz & Oyserman, 2001) have long argued that the way in which a question is asked can have a substantial impact on the results of self-report inventories. This may be particularly true when test items refer to the behavior of respondents in various situations. With such items it can be extremely difficult to ensure that each respondent interprets the items in the exact same way as every other respondent. In their 1986 article, Werner and Pervin analyzed the item content of six personality inventories,

including the 16PF. Each test item was classified in terms of three rating categories: area of functioning (cognitive, affective-preferences, affective-feelings, behavioral), situation (was situation referred to or not), frequency (was frequency referred to or not), and time (past, present, future, hypothetical). The 16PF, which consists of a series of brief statements, was found to have the highest percentage of items that referred to situation. It also had the highest percentage of items that referred to the future or hypothetical time frames. In contrast, the BCL, which was not included in the Werner and Pervin study, consists simply of a series of adjectives. The respondent is asked to indicate the extent to which he or she feels each adjective is self-descriptive. Thus, these items are not situationally based or dependent on a particular time period, but are more global assessments of how well an adjective describes oneself across situations and time periods. Because these items allow less room for misinterpretation, this more global self-assessment of personality (e.g., I think I am “friendly”) may be a better predictor of procedural justice perceptions than a more specific, situational assessment of friendly behavior.

Another consideration in examining the different pattern of results between the BCL and the 16PF is the order in which they are administered. In the current study, the BCL was administered first. It was then followed by the 16PF. According to Feldman and Lynch (1988), responses on instruments that measure beliefs, attitudes, and intentions can be influenced by previous responses given by the participant. Respondents may use answers to earlier survey questions as inputs when responding to later questions, particularly if the former responses are accessible and are perceived to be more

diagnostic than other accessible inputs. This suggests that the candidates' completion of the BCL could have influenced their responses to the 16PF. Perhaps after making more global judgments about their personality traits when taking the BCL, they used these responses as input when responding to the more situationally specific items on the 16PF. This could prevent individuals from accurately completing the 16PF in the way it was intended, and could account for some of the differential relationships with procedural justice perceptions.

#### **4.4 Additional Relationships**

In contrast to findings by some other researchers concerning racial group differences in applicant perceptions (e.g., Chan et al., 1997), the current study found no differences between minorities and nonminorities on any of the procedural justice perception scales. This was true for all three measures as well as the process as a whole at both Time 1 and Time 2. Gender differences were negligible, with females scoring slightly higher on one scale for the personality measure at Time 1 and males scoring slightly higher on one scale for the cognitive measure at Time 2. Age was somewhat consistently related to perceptions of the amount of information known for the various measures. That is, the older an applicant was the more information the applicant felt he or she had about the selection measure. This could be due to previous experience with selection processes since higher age was generally associated with having had previous experience with similar measures.

Contrary to expectations, selection process outcome was not highly predictive of procedural justice perceptions. Previous studies (Kluger & Rothstein, 1993; Macan et al.,

1994) have found that applicants who do well on a selection measure have more positive perceptions of that measure following knowledge of the outcome and that candidates who performed well viewed the entire selection process more positively than did those who performed poorly. Thus, it is surprising that outcome did not have a greater effect in the current study. However, this may be the result of the way in which the process works at this selection firm. While the personality test, assessment interview and cognitive test are all administered by the firm at their office, these are only three pieces of a larger puzzle in terms of the selection decision. The decision to make an offer to an applicant is made by the client organization and applicants are notified of that decision by a representative of that organization. Thus, it is possible that candidates don't directly attribute the selection decision to their performance on the firm's selection measures in this particular situation. For example, the decision could be based on the needs of the organization, issues concerning salary, or the results of interviews conducted on site at the client organization. This could be serving to eliminate the effect of the selection outcome on their perceptions of the tests and interview, as well as on the entire process undergone at the firm.

Results obtained by comparing perceptions of the three types of selection measures were consistent with previous research which found that interviews are seen by applicants as fairer than other types of selection measures (Rynes and Connerly, 1993; Hausknecht, Day & Thomas 2004). Applicants' procedural justice perceptions of the assessment interview were generally more positive than their perceptions of either the cognitive test or the personality test. This was true when justice perceptions were

measured immediately following testing as well as when they were measured after the selection process outcome was known. The one exception was that the individual assessment interview was perceived to be less consistent than the other measures at Time 1. This is somewhat understandable given that the interview may be administered by any one of six psychologists. It stands to reason that applicants might suspect less consistency in the interview process despite the standardized interview form. A number of studies also found that cognitive ability tests are perceived to be fairer than personality tests (Chan, 1997, Rosse, Miller, & Stecher, 1994; Rynes & Connerly, 1993; Smither et al., 1993). However, the current study did not find that perceptions of the cognitive test were more positive than perceptions of the personality test. In fact, on the job relatedness scale, perceptions of the personality test were higher than for the cognitive test at both Time 1 and Time 2.

Another contribution of this study is the examination of applicant perceptions both of specific measures used in the selection testing process as well as of the testing process as a whole. Previous studies of applicant perceptions have investigated either perceptions of individual measures or perceptions of the entire testing process. Few have examined both simultaneously. The results of this study indicated that procedural justice perceptions of the selection process as a whole may be considerably higher than perceptions of any one specific measure employed during the process. Further research should be done in order to determine whether it is perceptions of the entire selection process or measure specific perceptions that are most strongly related to important outcomes such as offer acceptance and recommendation intentions.



This study also provided additional information concerning the usability of the SPJS, a relatively new measure. The SPJS was introduced in 2001 (Bauer et al., 2001) and it has not yet been used widely in empirical studies. Although some scales were excluded and the SPJS was administered slightly differently than it was in Bauer et al.'s original study or in the Truxillo et al. 2002 study, the factor structure of the SPJS scales proved to be relatively stable. There was a tendency for the job relatedness and job relatedness content items to load with other factors, but this is somewhat understandable given the small number of items contained in these scales; they are each made up of only two items. The SPJS scales maintained satisfactory reliability as well, with alpha coefficients closely approximating those found in the original Bauer et al. study.

#### **4.5 Future Research**

Future research should continue to investigate the potential of personality variables to act as antecedents to procedural justice perceptions. There has been little research in this area and what studies have been done have focused primarily on conscientiousness and neuroticism. Although this study relied on theoretical models to suggest possible relationships personality and applicant perception variables, it is best conceptualized as a first step in the exploration of such relationships. However, the current study does suggest that extraversion may be a characteristic which warrants further consideration, particularly when the selection measure involves personal interaction or assessment of personality traits. Research which uses different personality measures to assess extraversion and which examines perceptions of various selection measures in various settings would help clarify the role of personality in the procedural

justice perception framework. Furthermore, while this study investigated procedural justice perceptions, future studies should also investigate extraversion's potential to predict various other applicant perceptions, such as distributive justice and interactional justice.

Additional research into the role of selection process outcome is also needed. According to Ryan and Ployhart (2000) and Hausknecht, Day and Thomas (2004), a major methodological problem with applicant perception studies is the failure to specify whether perceptions of selection measures are being assessed before or after feedback has been given concerning the selection outcome. Few studies have given specific information as to how and when feedback was provided and even fewer studies have measured perceptions both prior to and after feedback was provided to applicants. The current study is among these few. The majority of these studies have found that selection process outcome does impact perceptions. Given that the findings in this study did not support such an influence, more empirical work is needed in order to determine the importance of outcome feedback.

The potential role of personality predictors in helping organizations in their quest to improve applicant perceptions was mentioned above. According to Hausknecht, Day and Thomas' (2004), more research is needed to explore the methods for and benefits of interventions aimed at improving applicant perceptions of selection measures. Such research should incorporate person characteristics such as personality so that we can provide a clear picture of which strategies work and for whom they work. Just as it cannot be assumed that every individual will perceive a selection measure the same way,

it cannot be assumed that interventions to improve these perceptions will affect each individual in the same manner.

Future theoretical work should strive to clarify the role of self-assessed performance in the applicant perception model. While some theoretical authors agree on its position as an outcome of applicant perceptions, some empirical researchers continue to treat it as an antecedent of perceptions. Given the strong nature of the correlations between these two variables, both in the current study as well as in recent reviews, it is important that considerable thought be directed toward the causal direction of the relationship.

#### **4.6 Limitations**

As is true of any empirical study, the current research has some important limitations. First and foremost, more participants were needed in the Time 2 sample. All efforts were made to secure the participation of all applicants who had completed the Time 1 measures, including multiple contacts by email, a letter, and a drawing for a gift certificate. However, only a 35% response rate was achieved. This small sample size limits the conclusions that can be drawn from the Time 2 results, given that many of the relationships among variables might have been significant if the number of participants had been larger. Another limitation of the study concerns the issue of common-source, common-method variance. Measures of various constructs were obtained from the same people and in a similar format. Concerning selection process outcome, the current study only examined this construct in terms of a “job offer/ no job offer” dichotomy. This was necessary because neither the consulting firm nor the client organization provides

specific score information for the personality test, the assessment interview or the cognitive test. In an ideal situation, applicants would have received outcome information for each of the selection measures. Perhaps then the impact of outcome feedback could have been more clearly measured.

Another possible limitation of this study involves the issue of construct definition. In an article published after the inception of the current study, Chan and Schmitt (1994) stress the importance of defining the construct space in the study of applicant perceptions. They suggest that the dimensions of procedural justice discussed by Gilliland (1993) are best conceptualized as antecedents to an overall perception of the selection measure or process and not as facets of such an overall perception. Following this line of thinking, one must ask whether or not characteristics of the individual such as personality are more likely to have an impact at the level of justice perceptions or at the level of an overall perception of the measure or process. Chan & Schmitt believe that applicants' overall perceptions are determined by four factors: justice principles, self-serving biases, test content and method, and applicant characteristics. Thus, procedural justice and personality would both be factors affecting overall perceptions and would not necessarily be related to one another. Future research should attempt to determine where personality variables best fit into the applicant perceptions puzzle.

Despite its limitations, the current study offers several new connections not previously seen in the applicant perception research. It supports some previous empirical findings and contradicts others. It also provides additional data concerning the usability

of a relatively new measure of procedural justice perceptions. Lastly, it explores new ideas for applied research and stresses theoretical issues in need of clarification.

**Appendix A**

**Background Information Items**

<p><b>Name</b> _____</p> <p><b>Company to which you are applying:</b> _____</p> <p><b>Job Type:</b></p> <table style="width: 100%;"><tr><td style="width: 50%;"><input type="checkbox"/> Sales</td><td style="width: 50%;"><input type="checkbox"/> General Management</td></tr><tr><td><input type="checkbox"/> Staff</td><td><input type="checkbox"/> Other</td></tr><tr><td><input type="checkbox"/> Management</td><td></td></tr></table>			<input type="checkbox"/> Sales	<input type="checkbox"/> General Management	<input type="checkbox"/> Staff	<input type="checkbox"/> Other	<input type="checkbox"/> Management	
<input type="checkbox"/> Sales	<input type="checkbox"/> General Management							
<input type="checkbox"/> Staff	<input type="checkbox"/> Other							
<input type="checkbox"/> Management								
<p><b>Age:</b> _____ <b>Gender:</b> <input type="checkbox"/> Male <input type="checkbox"/> Female</p> <p><b>Race:</b></p> <table style="width: 100%;"><tr><td style="width: 50%;"><input type="checkbox"/> White</td><td style="width: 50%;"><input type="checkbox"/> African American</td></tr><tr><td><input type="checkbox"/> Hispanic</td><td><input type="checkbox"/> Asian</td></tr><tr><td><input type="checkbox"/> Mixed</td><td><input type="checkbox"/> Other</td></tr></table> <p><b>Education (Please indicate the number of years of formal education completed):</b> _____</p>			<input type="checkbox"/> White	<input type="checkbox"/> African American	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Asian	<input type="checkbox"/> Mixed	<input type="checkbox"/> Other
<input type="checkbox"/> White	<input type="checkbox"/> African American							
<input type="checkbox"/> Hispanic	<input type="checkbox"/> Asian							
<input type="checkbox"/> Mixed	<input type="checkbox"/> Other							

## **Appendix B**

### **Past Experience With Similar Tests Items**

How many times have you previously taken the BCL personality test? \_\_\_\_\_

How many times have you previously taken other personality tests for employment purposes? \_\_\_\_\_

How many times have you previously taken other personality tests for non-employment purposes? \_\_\_\_\_

How many times have you previously undergone an individual assessment interview with Management Psychology Group? \_\_\_\_\_

How many times have you previously undergone other individual assessment interviews for employment purposes? \_\_\_\_\_

How many times have you previously undergone other individual assessment interviews for non-employment purposes? \_\_\_\_\_

How many times have you previously taken the SRA test of cognitive ability? \_\_\_\_\_

How many times have you previously taken other tests of cognitive ability for employment purposes? \_\_\_\_\_

How many times have you previously taken other tests of cognitive ability for non-employment purposes? \_\_\_\_\_

## **Appendix C**

### **Selection Procedural Justice Scale (Bauer et al., 2001)**

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Neither agree nor disagree
- 4 = Agree
- 5 = Strongly agree

#### **Structure Factor Subscales**

##### **Job relatedness**

- 1. Doing well on this test means a person can do the [ ] job well.
- 2. A person who scored well on this test will be a good [ ].

##### **Information Known**

- 3. I understood in advance what the testing processes would be like.
- 4. I knew what to expect on the test.
- 5. I had ample information about what the format of the test would be.

##### **Chance to Perform**

- 6. I could really show my skills and abilities through this test.
- 7. This test allowed me to show what my job skills are.
- 8. This test gives applicants the opportunity to show what they can really do.
- 9. I was able to show what I can do on this test.

##### **Reconsideration Opportunity**

- 10. I was given ample opportunity to have my test results rechecked , if necessary.
- 11. There was a chance to discuss my test results with someone.
- 12. I feel satisfied with the process for reviewing my test results.
- 13. Applicants [are] able to have their test results reviewed if they want.
- 14. The opportunities for reviewing my test results were adequate.

##### **Feedback**

- 15. I had a clear understanding of when I would get my test results.
- 16. I knew when I would receive feedback about my test results.
- 17. I [am] satisfied with the amount of time that it took to get feedback on my test results.



## **Social Factor Subscales**

### **Consistency**

1. The test was administered to all applicants in the same way.
2. There were no differences in the way the test was administered to different applicants.
3. Test administrators made no distinction in how they treated applicants.

### **Openness**

4. I was treated honestly and openly during the testing process.
5. Test administrators were candid when answering questions about the test.
6. Test administrators answered procedural questions in a straightforward and sincere manner.
7. Test administrators did not try to hide anything from me during the testing process.

### **Treatment**

8. I was treated politely during the testing process.
9. The test administrators were considerate during the test.
10. The test administrators treated applicants with respect during today's testing process.
11. The testing staff put me at ease when I took the test.
12. I was satisfied with my treatment at the test site.

### **Two-way communication**

13. There was enough communication during the testing process.
14. I was able to ask questions about the test.
15. I am satisfied with the communication that occurred during the testing process.
16. I would have felt comfortable asking questions about the test if I had any.
17. I was comfortable with the idea of expressing my concerns at the test site.

### **Propriety of Questions**

18. The content of the test did not appear to be prejudiced.
19. The test itself did not seem too personal or private.
20. The content of the test seemed appropriate.

## **Job relatedness Content**

21. It would be clear to anyone that this test is related to the [            ] job.
22. The content of the test was clearly related to the [            ] job.

## Appendix D

### Individual Assessment Interview Guide

#### **DEVELOPMENTAL HISTORY**

PARENTS CURRENTLY: M D YOUR AGE AT DIVORCE \_\_\_\_ REMARRIAGES - M: Y N F: Y N

FATHER: LIVING \_\_\_\_ DEAD \_\_\_\_ AT AGE \_\_\_\_ EDUCATION \_\_\_\_ VOCATION \_\_\_\_

DESCRIPTION \_\_\_\_

SIMILAR TO SELF \_\_\_\_

MOTHER: LIVING \_\_\_\_ DEAD \_\_\_\_ AT AGE \_\_\_\_ EDUCATION \_\_\_\_ VOCATION \_\_\_\_

DESCRIPTION \_\_\_\_

SIMILAR TO SELF \_\_\_\_

SIBLINGS/AGES LOCATION, EDUCATION, OCCUPATION, RELATIONSHIP, ETC.

BIRTH ORDER \_\_\_\_ NUMBER OF SIBLINGS \_\_\_\_

EARLY EXPERIENCES, SIGNIFICANT EVENTS/BENCHMARKS, PERSONALITIES, ETC.

SELF AS CHILD \_\_\_\_

CURRENT FAMILY STATUS: S/NM M W D SEP WHEN MARRIED \_\_\_\_

YOUR 1ST \_\_\_\_ SPOUSE'S 1ST \_\_\_\_ SPOUSE LIVING (DEAD) AT AGE \_\_\_\_ WHERE MET \_\_\_\_

EDUCATION \_\_\_\_ OCCUPATION \_\_\_\_

PERSONALITY \_\_\_\_

SPOUSE DESCRIBES YOU \_\_\_\_

CHILDREN/AGES \_\_\_\_

#### **SOCIAL/RECREATIONAL/LIFESTYLE**

DESCRIPTION OF BEST FRIEND(S) \_\_\_\_

HIS/HER DESCRIPTION OF YOU \_\_\_\_

HOBBIES/RECREATIONAL PURSUITS \_\_\_\_

READING \_\_\_\_

ORGANIZATIONS \_\_\_\_

## NAME \_\_\_\_\_

**EDUCATION** SAT \_\_\_\_ ACT \_\_\_\_ GRE \_\_\_\_ GMAT \_\_\_\_ G1 G2 G3 STATUS: ACTIVE \_\_\_\_ INACTIVE \_\_\_\_

SCHOOL & LOCATION	DATES	DEGREES	GRADES	CAREER OBJECTIVES, INTERESTS, REASONS

**JOBS**

## DATES

[illegible]

WORK LIKED BEST \_\_\_\_\_ WORK LIKED LEAST \_\_\_\_\_

**NATIVE LANGUAGE**

- 1 ENGLISH  
2 FRENCH  
3 GERMAN  
4 SPANISH  
5 OTHER

(\*)

(-)

**MISTAKE/REGRET** \_\_\_\_\_

CAUSES OF STRESS \_\_\_\_\_

CHANGE \_\_\_\_\_

**BAD DECISION** \_\_\_\_\_

## MANAGEMENT STYLE \_\_\_\_\_

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**WORST BOSS** \_\_\_\_\_

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RESERVATIONS (JOB/COMPANY) \_\_\_\_\_

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**BACKGROUND:** EDUCATION \_\_\_\_\_  
EXPERIENCE \_\_\_\_\_  
WORK HISTORY \_\_\_\_\_

## **Appendix E**

### **SPJS item categories**

- 1 = Strongly disagree
- 2 = Disagree
- 3 = Neither agree nor disagree
- 4 = Agree
- 5 = Strongly agree

#### **Items Specific to Measure**

##### **Job relatedness**

- 1. Doing well on this [type of measure ] means a person can do the job well.
- 2. A person who scored well on this [type of measure ] will be a good performer.

##### **Information Known**

- 3. I understood in advance what the process for this [type of measure ] would be like.
- 4. I knew what to expect on this [type of measure ].
- 5. I had ample information about what the format of the [type of measure ] would be.

##### **Chance to Perform**

- 6. I could really show my skills and abilities through this [type of measure ].
- 7. This [type of measure ] allowed me to show what my job skills are.
- 8. This [type of measure ] gives applicants the opportunity to show what they can really do.
- 9. I was able to show what I can do on this [type of measure ].

##### **Consistency**

- 10. The [type of measure ] was administered to all applicants in the same way.
- 11. There were no differences in the way this [type of measure ] was administered to different applicants.
- 12. Test administrators made no distinction in how they treated applicants during this [type of measure ].

##### **Propriety of Questions**

- 13. The content of this [type of measure ] did not appear to be prejudiced.
- 14. The [type of measure ] itself did not seem too personal or private.
- 15. The content of the [type of measure ] seemed appropriate.

##### **Job relatedness Content**

- 16. It would be clear to anyone that this [type of measure ] is related to the job.
- 17. The content of the [type of measure ] was clearly related to the job.

Additional item:

- 1 = Well below average
- 2 = Below average
- 3 = Average
- 4 = Above average
- 5 = Well above average

How well do you think you performed on this measure?

### **Items Referring to Selection Process in General**

#### **Openness**

- 18. I was treated honestly and openly during the testing process.
- 19. Test administrators were candid when answering questions about the measures.
- 20. Test administrators answered procedural questions in a straightforward and sincere manner.
- 21. Test administrators did not try to hide anything from me during the testing process.

#### **Treatment**

- 22. I was treated politely during the testing process.
- 23. The test administrators were considerate during the process.
- 24. The test administrators treated applicants with respect during today's testing process.
- 25. The testing staff put me at ease when I took the measures.
- 26. I was satisfied with my treatment at the test site.

#### **Two-way communication**

- 27. There was enough communication during the testing process.
- 28. I was able to ask questions about the measures.
- 29. I am satisfied with the communication that occurred during the testing process.
- 30. I would have felt comfortable asking questions about the measures if I had any.
- 31. I was comfortable with the idea of expressing my concerns at the test site.

## REFERENCES

- Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), Advances in experimental social psychology, Vol. 2 (pp. 267-299). New York: Academic Press.
- Ambrose, M. L., & Rosse, J. G. (2003). Procedural justice and personality testing. An examination of concern and typicality. Group and Organizational Management, 28, 502-526.
- Arvey, R. D., Strickland, W., Drauden, G., & Martin, C. (1990). Motivational components of test taking. Personnel Psychology, 43, 695-716.
- Avis, J. M., Kudisch, J. D., Fortunato, V. J. (2002). Examining the incremental validity and adverse impact of cognitive ability and conscientiousness on job performance. Journal of Business and Psychology, 17, 87-105.
- Ball, G. A., Trevino, L. K., & Sims, H. P. (1993). Justice and organizational punishment: Attitudinal outcomes of disciplinary events. Social Justice Research, 6, 39-66.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. Personnel Psychology, 44, 1-26.
- Barrick, M. R., Mount, M. K., & Judge, T. A. (2001). Personality and performance at the beginning of the new millennium: What do we know and where do we go next? Personality and Performance, 9, 9-30.
- Barrick, M. R., Stewart, G. L., Neubert, M. J., & Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. Journal of Applied Psychology, 83, 377-391.
- Bauer, T. N., Maertz, C. P., Dolen, M. R. & Campion, M. A. (1998). Longitudinal assessment of applicant reactions to employment testing and test outcome feedback. Journal of Applied Psychology, 83, 892-903.
- Bauer, T. N., Truxillo, D. M., Sanchez, R. J., Craig, J. M., Ferrara, P., & Campion, M. A. (2001). Applicant reactions to selection: Development of the selection procedural justice scale (SPJS). Personnel Psychology, 54, 387-419.
- Bierhoff, H. W., Cohen, R. L., & Greenberg, J. (1986). Justice in social relations. New York: Plenum.

Bies, R. J., & Moag, J. F. (1986). Interactional justice: Communication criteria of fairness. In R. J. Lewicki, B. H. Sheppard, & M. H. Bazerman (Eds.), Research on negotiations in organizations, Vol. 1. (pp. 43-55). Greenwich, CT: JAI Press.

Boudreau, J. W., & Rynes, S. L. (1985). The role of recruitment in staff utility analysis. Journal of Applied Psychology, 70, 354-366.

Brockner, J., Ackerman, G., & Fairchild, G. (2001). When do elements of procedural justice make a difference? A classification of moderating differences. In J. Greenberg & R. Cropanzano (Eds.), Advances in organizational justice. (pp. 179-212). Stanford: Stanford University Press.

Cattell, R. B., Cattell, A. K., & Cattell, H. E. (1993). Sixteen Personality Factor Questionnaire, Fifth Edition. Champaign, IL: Institute for Personality and Ability.

Chan, D. (1997). Racial subgroup differences in predictive validity perceptions on personality and cognitive ability tests. Journal of Applied Psychology, 82, 311-320.

Chan, D., & Schmitt, N. (1997). Video-based versus paper-and-pencil method of assessment in situational judgment tests: Subgroup differences in test performance and face validity perceptions. Journal of Applied Psychology, 82, 143-159.

Chan, D. & Schmitt, N. (2004). An agenda for future research on applicant reaction to selection procedures: A construct-oriented approach. International Journal of Selection and Assessment, 12, 9-23.

Chan, D. Schmitt, N., DeShon, R. P., & Clause, C. S. (1997). Reactions to cognitive ability tests: The relationship between race, test performance, face validity perceptions and test taking motivation. Journal of Applied Psychology, 82, 300-310.

Chan, D. Schmitt, N., Jennings, D., Clause, C. S., & Delbridge, K. (1998a). Applicant perceptions of test fairness: Integrating justice and self-serving bias perspectives. International Journal of Selection and Assessment, 6, 232-239.

Chan, D., Schmitt, N., Sacco, J. M., & DeShon, R. P. (1998b). Understanding pretest and posttest reactions to cognitive ability and personality tests. Journal of Applied Psychology, 83, 471-485.

Cohen, J., & Cohen, P. (1983). Applied multiple regression/ correlation analysis for the behavioral sciences. Hillsdale, NJ: Lawrence Erlbaum Associates.

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C., Yee Nig, K. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. Journal of Applied Psychology, 86, 425-445.



Costa, P. T., & McCrae, R. R. (1992). Trait psychology comes of age. In T. B. Sonderegger (Ed.), Nebraska symposium on motivation 1991, Vol. 39. Current theory and research in motivation (pp. 169-204). Lincoln: University of Nebraska Press.

Cropanzano, R., Rupp, D. E., Mohler, C. J., & Schminke, M. (2001). Three roads to organizational justice. In G. R. Ferris (Ed.), Research in personnel and human resources management, Vol. 20. (pp.1-114). Oxford: JAI/Elsevier Science.

DeNeve, K. M. & Cooper, H. (1998). The happy personality: a meta-analysis of 137 personality traits and subjective well-being. Psychological Bulletin, 124, 197-229.

Digman, J. M. & Takemoto-Chock (1981). Factors in the natural language of personality: Re-analysis, comparison, and interpretation of the six major studies. Multivariate Behavioral Research, 16, 149-170.

Feldman, J. M., & Lynch, J. G. (1988). Self-generated validity and other effects of measurement on belief, attitude, intention, and behavior. Journal of Applied Psychology, 73, 421-435.

Fiske, D. W. (1967). The subject reacts to tests. American Psychologist, 22, 287-296.

Folger, R., & Greenberg, J. (1985). Procedural justice: An interpretive analysis of personnel systems. Research in Personnel and Human Resources Management, 3, 141-183.

Furnham, A. & Coveney, R. (1996). Personality and customer service. Psychological Reports, 79, 675-681.

Gilliland, S. W. (1993). The perceived fairness of selection systems: An organizational justice perspective. Academy of Management Review, 18, 694-734.

Gilliland, S. W. (1994). Effects of procedural and distributive justice on reactions to a selection system. Journal of Applied Psychology, 79, 691-701.

Gilliland, S. W., & Hale, J. (2005). How can justice be used to improve employee selection practices? In J. Greenberg & J. A. Colquitt (Eds.), Handbook of Organizational Justice. (pp. 411-438). Mahwah, NJ: Lawrence Erlbaum Associates.

Hausknecht, J. P., Day, D. V., & Thomas, S. C. (2004). Applicant reactions to selection procedures: An updated model and meta-analysis. Personnel Psychology, 57, 639-683.

Hogan, R. T. (1994). Personality and personality measurement. In M. D. Dunnette Marvin D. & L. M. Hough, et al. (Eds.), Handbook of industrial and organizational psychology, Vol. 2. (pp. 873-919). Palo Alto, CA: Consulting Psychologists Press, Inc.

Hogan, R. T., & Roberts, B. W. (2001). Personality and industrial organizational psychology. In W. Roberts and R. Hogan (Eds.), Personality psychology in the workplace. (pp. 3-18). Washington, D.C.: American Psychological Association.

Hough, L. M., & Oswald, F. L. (2000). Personnel selection” Looking toward the future – remembering the past. Annual Review of Psychology, 51, 631-664.

Judge, T. A., & Bono, J. E. (2001). A rose by any other name: Are self-esteem, generalized self-efficacy, neuroticism, and locus of control indicators of a common construct? In W. Roberts and R. Hogan (Eds.), Personality psychology in the workplace. (pp. 93-120) Washington, D.C.: American Psychological Association.

Judge, T. A. & Bono, J. (1999). Core self-evaluations and construct breadth: effects on job satisfaction and job performance. Paper presented at the 14<sup>th</sup> Annual Conference of the Society for Industrial and Organizational Psychology, Atlanta, GA.

Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. Journal of Applied Psychology, 83, 17-34.

Judge, T. A., Martocchio, J. J., Thoresen, C. J. (1997). Five-factor model of personality and employee absence. Journal of Applied Psychology, 82, 745-755.

Konovsky, M. A. (2000). Understanding procedural justice and its impact on business organizations. Journal of Management, 26, 489-513.

Kluger, A. N., & Rothstein, H. R. (1993). The influence of selection test type on applicant reactions to employment testing. Journal of Business and Psychology, 8, 3-25.

LePine, J. A., & Van Dyne, L. V. (2001). Voice and cooperative behavior as contrasting forms of contextual performance: Evidence of differential relationships with big 5 personality characteristics and cognitive ability. Journal of Applied Psychology, 86, 326-336.

Leventhal, G. S. (1980). What should be done with equity theory? New approaches to the study of fairness in social relationships. In K. Gergen, M. Greenberg, & R. Willis (Eds.), Social exchange: Advances in theory and research. (pp. 167-218). New York: Plenum.

Lind, E. A., & Tyler, T. (1988). The social psychology of procedural justice. New York: Plenum.

Lounsbury, J. W., Bobrow, W., & Jensen, J. B. (1989). Attitudes toward employment testing: Scale development, correlates, and “known-group” validation. Professional Psychology: Research and Practice, 20, 340-349.

Macan, T. H., Avedon, M. J., Paese, M., & Smith, D. E. (1994). The effects of applicants’ reactions to cognitive ability tests and an assessment center. Personnel Psychology, 47, 715-738.

Maertz, C. P. Jr., Bauer, T. N., Mosley, D. C. Jr., Posthuma, R. A., & Campion, M. A. (2000). Do procedural justice perceptions and self-efficacy matter in employment testing situations? A replication with extensions. Unpublished manuscript.

Management Psychology Group (MPG) (2001). BCL test manual. Atlanta: Author.

McCrae, R. R. (1996). Social consequences of experiential openness. Psychological Bulletin, 120, 323-337.

McCrae, R. R., & Costa, P.T., Jr. (1990). Personality in adulthood. New York: The Guilford Press.

Mount, M. K., & Barrick, M. R. (1995). The big five personality dimensions: Implications for research and practice in human resources management. In G. Ferris (Ed.), Research in Personnel and Human Resource Management (Vol.13, pp.153-200). Greenwich, CT: JAI Press.

Mount, M. K. & Barrick, M. R. (1998). Five reasons why the “Big Five” article has been frequently cited. Personnel Psychology, 51, 849-857.

Mount, M. K., Barrick, M. R., & Stewart, G. L. (1998). Five-factor model of personality and performance in jobs involving interpersonal reactions. Human Performance, 11, 145-165.

Murphy, K. R., Thornton, G. C., & Reynolds, D. H. (1990). College students’ attitudes toward employee drug testing programs. Personnel Psychology, 43, 615-631.

Ployhart, R. E., & Harold, C. M. (2004). The applicant attribution-reaction theory (AART): An integrative theory of applicant attributional processing. International Journal of Selection and Assessment, 12, 84-96.

Ployhart, R. E., Ryan, A. M., & Bennett, M. (1999). Explanations for selection decisions: Applicants' reactions to informational and sensitivity features of explanations. Journal of Applied Psychology, 84, 87-106.

Ployhart, R. E. & Ryan, A. M. (1997). Organizational Behavior & Human Decision Processes, 72, 308-335.

Ployhart, R. E., Ziegert, J. C., & McFarland, L. A. (2003). Understanding racial differences on cognitive ability tests in selection contexts: An integration of stereotype threat and applicant reactions research. Human Performance, 16, 231-259.

Robertson, I. T., & Kandola, R. S. (1982). Work sample tests: Validity, adverse impact, and applicant reactions. Journal of Occupational Psychology, 55, 171-183.

Rosse, J. G., Miller, J. L., & Stecher, M. D. (1994). A field study of job applicants' reactions to personality and cognitive ability testing. Journal of Applied Psychology, 79, 987-992.

Russell, M. T., & Karol, D. L. (1994). The 16PF Fifth Edition Administrator's Manual. Champaign, IL: Institute for Personality and Ability Testing.

Ryan, A. M., & Ployhart, R. E. (2000). Applicants' perceptions of selection procedures and decisions: A critical review and agenda for the future. Journal of Management, 26, 565-606.

Rynes, S. (1993). Who's selecting whom? Effects of selection practices on applicant attitudes and behavior. In N. Schmitt & W. Borman (Eds.), Personnel Selection in Organizations. (pp. 240-274). San Francisco: Jossey-Bass.

Rynes, S. L., & Connerly, M. L. (1993). Applicant reactions to alternative selection procedures. Journal of Business and Psychology, 7, 261-277.

Salgado, J. F. (1997). The five factor model of personality and job performance in the European community. Journal of Applied Psychology, 82, 30-43.

Schwarz, N., & Oyserman, D. (2001). Asking questions about behavior: Cognition, communication, and questionnaire construction. American Journal of Evaluation, 22, 127-161.

Skarlicki, D. P., Folger, R. & Tesluk, P. (1999). Personality as a moderator in the relationship between fairness and retaliation. Academy of Management Journal, 42, 100-109.

Smither, J. W., Reilly, R. R., Millsap, R. E., Pearlman, K., & Stoffey, R. W. (1993). Applicant reactions to selection procedures. Personnel Psychology, 46, 49-76.

Tett, R. P., Jackson, D. N., & Rothstein, M. (1991). Personality measures as predictors of job performance: a meta-analytic review. Personnel Psychology, 44, 703-742.

Thibaut, J., & Walker, L. (1975). Procedural justice: A psychological analysis. Hillsdale, NJ: Erlbaum.

Thurstone, T. G., & Thurstone, L. L. (1947). SRA verbal form. Chicago: Science Research Associates.

Truxillo, D. M., Bauer, T. N., & Sanchez, R. J. (2001). Multiple dimensions of procedural justice: Longitudinal effects on selection system fairness and test-taking self-efficacy. International Journal of Selection & Assessment, 9, 336-350.

Tupes, E. C. & Christal, R. E. (1961). Recurrent personality factors based on trait ratings. (Technical Report No. 61-97). Washington, D.C.: USAF Aeronautical Systems Division.

Vinchur, A. J., Schippmann, J. S., Switzer, F. S., & Roth, P. L. (1998). A meta-analytic review of predictors of job performance for salespeople. Journal of Applied Psychology, 83, 586-597.

Werner, P. D., & Pervin, L. A. (1986). The content of personality inventory items. Journal of Personality and Social Psychology, 51, 622-628.

Zuroff, D. C. (1994). Depressive personality styles and the five-factor model of personality. Journal of Personality Assessment, 63, 453-472.