SO YOU DIDN'T GET THE JOB . . . *NOW* WHAT DO YOU THINK? EXAMINING OPPORTUNITY-TO-PERFORM FAIRNESS PERCEPTIONS

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Although the last 10 years have witnessed an increased recognition of the importance of procedural fairness in selection contexts, most empirical research has focused on job relevance as the primary influence on fairness perceptions. There is reason to believe, however, that "opportunity-to-perform" (OTP) perceptions are also an important aspect of fairness perceptions and become particularly important following negative feedback (i.e., not receiving a job offer). Using both qualitative and quantitative data from a large sample of applicants to an agency of the U.S. government ($N = 754$), we examine (a) how OTP relates to fairness judgments, (b) how receiving negative feedback affects this relationship, (c) differences in OTP across a variety of different selection methods, and (d) determinants of OTP perceptions. Both qualitative and quantitative analyses confirmed that OTP was an important predictor of overall procedural fairness and was the single most important procedural rule after receiving negative feedback. Practical implications of this pattern, the obtained differences in OTP across assessments, and results regarding the determinants of OTP are discussed.

The past decade or two has seen a shift in the selection research literature from a sole preoccupation with the psychometric properties of tests to also evaluating tests from the perspective of test takers (Gilliland, 1993, 1994; Schmitt & Gilliland, 1992; Society for Industrial and Organizational

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Psychology, Inc., 2003). The dominant theoretical paradigm for examining such applicant reactions has become organizational justice theory (Arvey & Sackett, 1993; Chan, Schmitt, Jennings, Clause, & Delbridge, 1998; Gilliland, 1993; Gilliland & Hale, 2005; Ryan & Ployhart, 2000), and a substantial body of research has now accumulated, demonstrating that applicants do indeed respond to justice (or fairness) issues in the selection process (see Gilliland & Steiner, 2001, and Ryan & Ployhart, 2000 for reviews).

Procedural justice in the selection context has been defined as the perceived fairness of the selection procedures used to make decisions and is presumed to be based on perceptions of the satisfaction or violation of multiple procedural "rules" (Gilliland, 1993). These rules fall into three primary areas (Gilliland, 1993; Greenberg, 1990): (a) formal characteristics of the tests and selection system (e.g., job relatedness, opportunity to perform [OTP], reconsideration opportunity, consistency of administration); (b) explanation (e.g., feedback, information provided, honesty); and (c) interpersonal treatment (e.g., interpersonal effectiveness of administrator, two-way communication, propriety of questions).

Although Gilliland (1993) originally advanced each of these rules as important determinants of procedural fairness perceptions, not all of them have received equal attention in the literature (Gilliland & Hale, 2005; Ryan & Ployhart, 2000). Specifically, the applicant reactions literature has focused most heavily on job relevance (or job relatedness; Chan et al., 1998; Gilliland, 1993; Ryan & Chan, 1999; Smither, Millsap, Stoffey, Reilly, & Pearlman, 1996; Smither, Reilly, Millsap, Pearlman, & Stoffey, 1993; Truxillo, Bauer, & Sanchez, 2001). The frequency with which this characteristic has been studied implicitly suggests that it is *the* essential determinant of fairness perceptions in applicants (see Ryan & Ployhart, 2000). In fact, it has been explicitly stated that "perhaps the greatest procedural influence on fairness perceptions is the job relatedness of the selection device" (Gilliland, 1993, p. 703; see also Chan et al., 1998). The almost exclusive focus on job relevance has resulted in the relative neglect of other potentially important aspects of procedural justice. In particular, there has been insufficient attention paid to the procedural rule of *OTP*.

OTP is the perception that one had an adequate opportunity to demonstrate one's knowledge, skills, and abilities (KSAs) in the testing situation (Arvey & Sackett, 1993; Bauer, Truxillo, Sanchez, Craig, Ferrara, & Campion, 2001; Bies & Shapiro, 1988; Gilliland, 1993). Like job relevance, it is a formal characteristic of the test or selection system; unlike job relevance, however, it is independent of a particular job. Rather, the referent is the self, and the extent to which the test (or selection situation) allows one to express himself or herself. An applicant may perceive that

a particular test provided little opportunity to display one's own KSAs, yet still believe the test is relevant to the job (a written job knowledge test provides a good example). Alternatively, an applicant might perceive an unstructured interview as high on OTP because it gives him/her the opportunity to demonstrate a broader range of his/her KSAs.

Although OTP was originally advanced by Gilliland (1993) as a clearly important determinant of fairness perceptions in selection, this procedural rule has gone almost completely unexamined in the applicant reactions literature (see Truxillo et al., 2001 for an exception[1]). Even the most recent version of the Society for Industrial and Organizational Psychology *Principles* (2003), which now includes an explicit discussion of applicant reactions (p. 40), confines this discussion to perceptions of job relevance and content validity; no mention is made of OTP. Following the suggestion of a very recent review ("future research should assess the extent to which opportunity to perform drives fairness perceptions," Gilliland & Hale, 2005, p. 424), this study is targeted toward educating researchers and practitioners about OTP, specifically and empirically examining its role in fairness perceptions and its determinants.

In addition, OTP provides a theoretically rich and appropriate context (elaborated upon below) in which to examine two important, yet previously unstudied, questions that cut across procedural fairness dimensions: (a) what factors affect the *salience* of various rules to applicants (Gilliland, 1993; Gilliland & Hale, 2005; Ryan & Ployhart, 2000; Truxillo et al., 2001) and (b) what *determines* perceptions of these various procedural rules (Gilliland & Hale, 2005). Utilizing both qualitative and quantitative data across multiple selection assessments, we examine each of these issues in the present study for OTP.

Importance of OTP

Overall

In general, given its identification in Gilliland's (1993) model as an important procedural rule and the prior findings of Truxillo et al. (2001), we expect that OTP will be a significant predictor of applicants' overall procedural fairness perceptions.

Hypothesis 1: OTP will be a significant predictor of overall procedural fairness perceptions.

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[1]Truxillo et al. (2001) is the only published article we have identified that included an empirical examination of opportunity to perform (although it was not their focus). They did in fact find that opportunity to perform significantly predicted overall fairness perceptions.

Beyond establishing the general importance of OTP, another primary focus of our study is examining how this importance might change. That is, researchers (e.g., Gilliland, 1993; Gilliland & Hale, 2005; Leventhal, 1980; Ryan & Ployhart, 2000; Truxillo et al., 2001) have periodically noted that justice reactions are dynamic in nature, suggesting that the various procedural rules are likely to be differentially weighted (i.e., more or less salient) at different points in the selection process. Such a possibility would obviously have important implications both for selection practitioners seeking to understand and improve fairness perceptions and for fairness researchers making methodological decisions such as timing of measurement. However, with the exception of one small, yet notable, qualitative study (Gilliland, 1995), this possibility and the types of factors influencing these differential weightings have never been explicitly and empirically examined (Gilliland, 1993; Gilliland & Hale, 2005; Leventhal, 1980; Ryan & Ployhart, 2000). Thus, we address this gap in the literature by focusing on one piece of this question, the role of negative feedback in the salience of the OTP rule. In particular, we ask the question: "What happens when you don't get the job?"

After Negative Feedback

We propose that an important factor affecting the relative salience (i.e., importance) of the OTP procedural justice rule is learning about the outcome (pass vs. fail) of the selection tests (see Gilliland, 1993, 1995). Although researchers have examined the effect of this variable on the valence or mean level of reactions (i.e., those who do well on an examination react more favorably than those who do less well; Bauer, Maertz, Dolen, & Campion, 1998; Chan, 1997; Chan, Schmitt, DeShon, Clause, & Delbridge, 1997; Chan et al., 1998; Gilliland, 1993) and its interaction with procedural fairness (i.e., procedural justice becomes more important with unfavorable outcomes; Brockner & Wiesenfeld, 1996; Greenberg, 1987), the effect of this variable on the *weighting* of specific procedural rules (i.e., which procedural rules are most important for determining overall fairness perceptions) has not been previously examined (Ryan & Ployhart, 2000).

Both applied and theoretical issues led us to choose this particular factor as an important place to start in investigating changes in the salience of the OTP procedural rule. Given that it is rejected candidates whose negative reactions are most likely to lead to litigation or other adverse consequences for the organization (see Arvey & Faley, 1988), it is important to focus on this group and understand what changes may occur in the importance of various procedural rules as a result of being rejected. As Gilliland and Hale (2005) have recently suggested, "perceptions formed

after the decision is communicated [may be] most important because they will lead to the strongest counterfactual reasoning" (p. 429). In addition, this factor has theoretical interest and import (especially for the OTP rule), given attributional mechanisms and recent work on self-serving biases in job applicants (Arvey, Strickland, Drauden, & Martin, 1990; Chan, 1997; Chan et al., 1997, 1998).

Attribution theory (Harvey & Weary, 1981; Kelley & Michela, 1980; Ross & Fletcher, 1985) suggests that when faced with a negative outcome (e.g., rejection for a job), one will blame that negative outcome on external factors, as such external attributions are egoprotecting. In the selection context, this has been shown to lead to self-serving biases in the perception of the assessment process (Arvey et al., 1990; Chan, 1997; Chan et al., 1997, 1998). This self-serving bias is believed to provide a threat-reduction or ego-enhancement mechanism that leads to the perception of unfair tests (i.e., an "excuse," Mehlman & Snyder, 1985) by applicants who find out they have failed. Feeling better about oneself after an excuse helps one to experience greater control over aversive outcomes. This is especially important in achievement situations (such as selection for a job), where outcomes are ego-relevant (Thompson & Janigian, 1988).

This process suggests that after receiving negative feedback regarding rejection, the most self-serving procedural rule would become most important (or salient) to applicants. Thus, the question becomes, from a salience perspective, which procedural rule is best at enabling such a self-serving mechanism? Chan et al. (1998) have found that examinees who believe they performed less well on selection tests "reduce the threat to self by evaluating the test as not relevant to the job and not predictive of successful performance" (p. 232). In other words, an evaluation of job relevance becomes the important mediator between poor performance/negative feedback and fairness perceptions. Yet, Chan et al. (1998) never examined OTP, which, we suggest, is the procedural justice dimension that provides the clearest threat-reducing (and therefore self-serving) mechanism.

To illustrate our rationale, consider the following example. If an applicant does not score highly on a cognitive ability test and therefore fails to receive a job offer, we know from previous research that this applicant is likely to view the test as unfair. In Chan et al.'s (1998) model, this (un)fairness assessment is primarily due to an assessment of the lack of job relevance of the cognitive ability test. However, we argue that emphasis on this procedural rule would be less effective at preserving the ego than arguing that the cognitive ability test was low on OTP. That is, regardless of whether the test was perceived to be related to the content of the job (and, in terms of the other rules, regardless of how well one was treated or communicated with regarding a particular test), acknowledging that one

has a low level of cognitive ability still constitutes a distinct threat to one's ego. Alternatively, by focusing most on one's OTP, the applicant could retain the belief that he/she has the attribute targeted by the test (in this example, cognitive ability) but simply argue that the test did not provide the opportunity to demonstrate that attribute. In other words, based on excuse theory (Mehlman & Snyder, 1985), no other rule provides an "excuse" for poor performance in the same way that OTP does. In short, we view the OTP rule as being the most effective in maintaining a self-serving bias because it allows one to avoid self-relevant attributions for failure in the most basic way (i.e., "I never had a chance to perform"). Therefore, OTP should increase in importance from prefeedback to post-negative feedback *and* should be the dominant determinant of fairness perceptions for applicants receiving negative feedback (i.e., failure to get the job).

> *Hypothesis 2*: OTP will be *more* important as a predictor of overall procedural fairness perceptions for those receiving negative feedback than it was for applicants prior to feedback.

> *Hypothesis 3*: Among those applicants receiving negative feedback, OTP will emerge as the single greatest determinant of overall procedural fairness perceptions.

Another source of converging evidence for the relative salience (or importance) of the OTP rule would be how frequently such a theme emerges spontaneously in open-ended comments from applicants. Unfortunately, too seldom has research in the justice realm investigated fairness with such a qualitative approach (i.e., using "the voices of those affected," Shapiro, 2001); the same can be said of the applicant reactions literature specifically (although see Gilliland, 1995, for a notable exception). And we know of no other studies that have examined applicant fairness perceptions via such multiple operationalizations (i.e., qualitative *and* quantitative data). The present study provides a unique opportunity to do so by testing the above predictions with qualitative data as well as the more traditional quantitative approach. Specifically, applicants were asked to provide open-ended comments about the multiple selection assessments at two points in time: immediately after completing the assessments and again after receiving the feedback (i.e., selection or rejection). Paralleling the previous predictions for the quantitative data, it is expected that OTP-related themes will be more frequent in the comments of those receiving negative feedback than in the comments of applicants prior to feedback. In addition, it is expected that for those receiving negative feedback, the frequency of OTP-related themes in the comments will be greater than the frequency of the other procedural rules.

Determinants of OTP Perceptions

Gilliland and Hale (2005) recently noted that one of the most important (and currently lacking) directions for selection fairness research is in understanding the antecedents of fairness perceptions. We would also extend this to the specific procedural rules and argue that relatively little work has examined determinants of applicants' perceptions of these rules, including OTP. Therefore, as a secondary agenda of this study, we contribute to the little that is known about the determinants of OTP perceptions by (a) identifying which specific aspects of the testing situation applicants implicate in their comments as determining their OTP perceptions and (b) examining how OTP perceptions vary across different assessments. Although exploratory in this study, findings in both areas may suggest ways that such perceptions could be improved in practice.

Aspects of OTP

In much of the broader procedural justice literature, one presumed important determinant of OTP has been *voice* (the degree to which a particular procedure gives those affected by a decision an opportunity to express their views about how a decision should be made; Hirschman, 1970). However, this determinant seems irrelevant in a selection context, in that applicants, by definition, would rarely have a say in the procedures used by an organization (see Ryan & Ployhart, 2000, for a more general discussion of the distinction between a selection context and other areas of organizational justice). Rather, determinants of OTP perceptions among applicants may include such issues as sufficient time available to complete the tests, provision of adequate resources/tools to complete the tests, correspondence between test material and one's education and other qualifications (i.e., does the test provide applicants an opportunity to reveal, or draw on, their educational background and other qualifications?), and the opportunity to interact directly with the evaluators as opposed to indirectly through test questions. We expected to see some of these themes emerge in the applicants' comments, but, in general, given the lack of previous research or relevant theory on which to base predictions, as well as our genuine desire to uncover these determinants using the language of the applicants themselves, this examination of the determinants of OTP perceptions is primarily exploratory (and therefore no hypotheses are advanced).

How OTP Varies Across Selection Methods

Understanding how perceptions of OTP vary across different types of selection assessments should also be informative with regard to improving

OTP-based reactions. Differences across selection assessments have been previously investigated for both overall fairness perceptions (Hausknecht, Day, & Thomas, 2004) and the job relevance procedural dimension (Smither et al., 1993; Schmitt, Gilliland, Landis, & Devine, 1993), with findings indicating that interviews, assessment center exercises, work sample tests, and cognitive ability tests with concrete items are perceived to be more job related and fair than personality tests, biodata forms, simple typing or dictation tests, and cognitive ability tests that include abstract items. However, to date, systematic differences in OTP perceptions across various types of selection assessments have never been empirically examined.[2] Thus, we address this gap by examining differences in applicants' OTP perceptions across multiple selection assessments, including multiple interview formats, a leaderless group discussion (LGD), and several paper-and-pencil tests (e.g., job knowledge, biodata). However, because of the dearth of relevant research and theory in this area, this is primarily presented as an exploratory investigation.

Method

Participants

The sample for this study consisted of persons applying for professional positions with an agency of the U.S. government. These positions entail working with the public, government officials, and members of the business community in both the United States and foreign countries, in one of several different career tracks (e.g., general management, economic and political analysis, public relations).

Approximately 15,000 persons apply for these positions in a given year (with about 11% of these being "repeat" applicants; i.e., those who have already gone through at least one assessment cycle for this position but failed to receive a job offer). The first hurdle in a multiple-hurdle process is a written examination, designed to prescreen candidates based on minimum qualifications. Approximately 25% of the applicants pass the written examination (comprising aptitude tests and background questionnaires) and move on to the main assessment procedure (described below), where approximately 20% pass and are offered positions. For the year in which the current data were collected, applicants had a mean age of approximately 26 years and 62% were male. Ethnic backgrounds represented were White (67%), Asian (8.9%), Black (9%), and Hispanic

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[2]Truxillo et al. (2001) examined differences in opportunity to perform across test *medium*, written versus video based but not across several commonly used types of selection assessments.

(7.9%). Greater than 90% of the applicants had bachelor's degrees, with approximately 50% also holding graduate or law degrees.

A subset of applicants making it to the main assessment procedure served as participants in this study (these were applicants who completed the main selection procedure in a given quarter and at a given location; however, *all* applicants completing these assessments at the given time and location participated in the study). They provided data at two points in time during the assessment process. A total of 754 applicants provided usable data at Time 1 (at the end of the assessment day), and 249 of these applicants also provided usable data at Time 2 (a few months after the close of the assessment cycle and delivery of the pass/fail feedback). Of these 249 respondents at Time 2, 149 passed the main selection process and 100 were rejected.[3]

Procedure

After passing the written examination, the primary selection process consisted of a battery of five assessments conducted in a single day: an LGD, a memo exercise based on the LGD, a structured situational interview (Latham, Saari, Pursell, & Campion, 1980), a structured past behavior interview (Janz, 1989), and a "background and interest" interview (BII; brief descriptions of these assessments are provided in the following section). A panel of trained assessors rated each candidate independently on each assessment based on a list of 14 skills and arrived at an overall consensus rating after discussions at the end of the testing day. A final decision regarding selection/rejection was made and communicated orally to each candidate individually at the end of the assessment day.

Data regarding candidates' fairness perceptions were collected at two points. First, participants were asked to fill out a survey on fairness perceptions of each assessment at the end of the testing day (i.e., after all assessments had been completed but *prior to* being notified of the decision). This served as the Time 1 (or prefeedback) data. The Time 2 (or postfeedback) data were collected via mail after the close of the assessment cycle, approximately 3 months after receiving the selection/rejection feedback.[4] At both times, candidates were also given the opportunity to

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[3]We attempted to match respondents across time, but only a small percentage (28%) provided identifying information at Time 2 to enable such matches. Thus, it was not possible to test Hypothesis 2 using within-subjects analyses. However, via the small matched sample, we were able to establish equivalence of the groups at Time 1 and Time 2 using techniques outlined by Goodman and Blum (1996).

[4]This timeframe was chosen to avoid more momentary and emotional reactions that might affect differences if perceptions were measured immediately after the feedback. In addition,

provide any open-ended comments related to the overall process, individual assessments, or any other concerns. Ninety-five candidates at Time 1 and 102 candidates at Time 2 provided such comments, which were used in the qualitative analyses.

Selection Methods

The initial screening phase (lasting a total of approximately 6 hours) included four written tests. A job knowledge test measured the candidates' depth and breadth of knowledge on a number of topics determined by a previous job analysis to be important for performing the tasks in this position. A biodata questionnaire included a large number of items designed to measure the candidate's experience, skills, and achievements in school, work, and other areas. A verbal test measured knowledge of correct grammar and the organization, word usage, and spelling and punctuation required for written reports and for editing the written work of others. The job knowledge, biodata, and verbal tests were administered in multiple choice formats, with between 70 and 100 items each. The fourth test was a written essay in which candidates were given 1 hour to write on a topic of contemporary interest. They were evaluated on the quality of their writing, not on the opinions expressed nor the depth of knowledge portrayed.

The primary phase of the selection procedure included five assessments, each lasting approximately 1 hour. First, in the LGD, groups of three to six candidates were assigned the task of discussing a number of different proposals and instructed to reach consensus on their recommendations. Second, in the memo exercise, candidates were asked to summarize in a memo several aspects of the previous LGD. Third, the situational interview involved posing several job relevant situations to the candidate. Fourth, the past behavior interview asked candidates to describe examples from their past experiences that demonstrated each of a number of specific skills. Fifth, the BII, developed to gain a greater understanding of the candidates' educational background, work experience, motivation, and other factors, was less structured than the other interviews, with the assessors selecting specific questions to ask from an array of interview questions, based on a prior review of the candidate's application form. Each of these

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the 3-month time lag was commensurate with the general protracted nature of the selection process for this particular position (i.e., 15–20 months), and therefore, the process was likely to still be on the minds of applicants 3 months later, especially because many of them are likely to reapply in the future (a trend for this particular agency, like many organizations considered "employers of choice"). However, this is not to say that this timeframe is the "ideal" one or that more immediate reactions are not also important (we return to this issue in the Discussion).

five assessments was carefully developed based on job analyses and subject matter expert review, and all evidenced good interrater reliability. In addition, the nine assessments together represent a good sampling of various categories of selection methods, which makes them an appropriate context within which to examine any differences between assessments on OTP.

Measures

Fairness perceptions. At both Time 1 and Time 2, we measured applicants' perceptions of the overall procedural fairness of the five primary assessments along with their perceptions of the assessments on multiple procedural fairness rules. These measures were adapted from Bauer et al. (2001) and included the following procedural fairness rules: job relevance ("I felt the content of the test was, to the best of my knowledge, related to the job of a _____"), OTP ("I felt that I could show my skills and abilities through this test"), communication ("I was satisfied with the communication that occurred during the testing process"), and interpersonal treatment ("I was satisfied with my treatment at the test site"). Although we were primarily interested in OTP, we included the other three measures largely as control variables (to allow us to assess the importance of OTP after accounting for the other primary procedural rules). Each measure of the four procedural rules consisted of five items, as did the overall procedural fairness measures, all obtained by averaging across the five assessments. Participants responded to each item on a 5-point Likert scale ranging from $1 = strongly\ disagree$ to $5 = strongly\ agree$. These scales all evidenced acceptable reliability at Time 1 and Time 2 (see Table 1).

Selection outcome/feedback condition. To allow for identification of condition (selection vs. rejection) with the Time 2 data, two different versions of the Time 2 survey were sent out. The surveys were identical, with the exception of a minor formatting difference that allowed for identification of the person's outcome condition upon return of the survey. This variable was coded "1" if the candidate had been selected and "0" if they had been rejected.

Coding of Comments

Two of the researchers (blind to both the time and pass/fail conditions) independently coded the open-ended comments received from applicants. First, each participant's open-ended comments were typed and divided into basic "thought units" (Carlston & Sparks, 1992), with each unit conveying a single, nonredundant aspect of the assessment process. Second, each coder independently assigned each thought unit to an OTP, job relevance, communication, interpersonal treatment, or "other" category, based on the

TABLE 1

Intercorrelations and Descriptive Statistics for Time 1 and Time 2 Data

Variable	M	SD	1	2	3	4	5	6
1. Job relevance	4.27 (4.14)	.52 (.67)	.74 (.81)	.75**	.61**	.61**	.72**	.40**
2. Opportunity to perform	4.03 (3.98)	.56 (.75)	.67**	.65 (.82)	.63**	.54**	.81**	.55**
3. Communication	4.26 (4.06)	.63 (.82)	.54**	.58**	.87 (.89)	.71**	.73**	.39**
4. Interpersonal treatment	4.51 (4.26)	.56 (.82)	.54**	.47**	.68**	.93 (.94)	.70**	.37**
5. Overall procedural fairness	4.18 (3.98)	.58 (.81)	.69**	.68**	.62**	.59**	.82 (.88)	.52**
6. Selection outcome[a]	(.60)	(.49)	–	–	–	–	–	–

Note. $N = 754$ at Time 1 and 249 at Time 2. Time 1 correlations are below the diagonal; Time 2 correlations are above the diagonal. Reliabilities (coefficient alpha) are listed on the diagonal (Time 2 reliabilities are in parentheses). Time 2 mean and *SD* are in parentheses.

[a]Coded such that 1 = *selected* and 0 = *rejected.*

**p < .01 (two-tailed).

procedural rule implicated in each thought unit. Interrater agreement on these initial classifications was estimated to be .83 using coefficient kappa (Brennan & Prediger, 1981; Cohen, 1960). In their discussion of the relative strength of agreement associated with kappa statistics, Landis and Koch (1977) classified a coefficient of .83 as denoting a level of agreement somewhere between "substantial" and "almost perfect" (p. 165). The few discrepancies that did arise were resolved via discussion to achieve consensus on each thought unit. Eight variables were created for each participant from these codings: the percentage of his/her thought units that were related to each of the four procedural rules, at both Time 1 and Time 2.

Results

Table 1 contains descriptive statistics and intercorrelations for all study variables at Time 1 and Time 2 (below and above the diagonal, respectively). Hypothesis 1 predicted that OTP would be significantly related to overall procedural fairness perceptions. It was tested by regressing overall procedural fairness onto the four procedural rules for all applicants at Time 1. As Table 2 shows, OTP was significant in the regression equation, $\beta = .323$, $p < .001$, thus supporting Hypothesis 1.

Hypotheses 2 and 3 (Effect of Negative Feedback on Salience of OTP)

First, to test for the presence of a general self-serving bias, a one-way analysis of variance (ANOVA) was conducted to determine whether applicants who were rejected perceived the process to be significantly less fair than those who were selected. (In the absence of such an effect, the theoretical basis for our hypotheses would be groundless.) As expected, results showed that rejected applicants did in fact perceive the process to be significantly less fair ($M = 3.47$) than applicants who were selected ($M = 4.33$), $F(1, 247) = 91.64$, $p < .001$ ($R^2 = .27$).

Hypothesis 2. Hypothesis 2 predicted that OTP would be more important (as a predictor of overall procedural fairness) for those receiving negative feedback than it was for applicants prior to feedback. We regressed overall fairness onto the four procedural rules for both applicants at Time 1 and applicants who failed at Time 2 (see Table 2). The beta-weight for OTP for those receiving negative feedback was .574 ($p < .001$), compared to .323 ($p < .001$) for all applicants prior to feedback. This difference in beta-weights was significant, $t(850) = 27.35$, $p < .001$ ($R^2 = .50$), thus supporting Hypothesis 2.

Hypothesis 3. Hypothesis 3 predicted that among applicants receiving negative feedback, OTP would be the single greatest determinant of overall procedural fairness perceptions. This was tested via two distinct analytic

TABLE 2
Regression Beta-Weights Testing Hypotheses 1, 2, and 3

	Time 1 (all applicants)					Time 2 (failers)					Time 2 (passers)				
	B	SE B	Beta	t	p	B	SE B	Beta	t	p	B	SE B	Beta	t	p
(Constant)	.069	.12		.56	.575	−.263	.25		−1.05	.298	.072	.275		.26	.793
Communication	.141	.03	.154	4.57	<.001	.160	.08	.169	1.97	.052	.187	.057	.215	3.27	<.001
Interpersonal treatment	.182	.03	.177	5.54	<.001	.247	.07	.277	3.33	<.001	.269	.058	.290	4.60	<.001
Job relevance	.320	.04	.287	8.83	<.001	.003	.10	.002	.03	.976	.212	.077	.202	2.74	.007
Opportunity to perform	.329	.03	.323	9.91	<.001	.625	.09	.574	7.06	<.001	.305	.077	.275	3.96	<.001

*Note. N*s = 754 (Time 1), 100 (Time 2 failers), and 149 (Time 2 passers); dependent variable was overall procedural fairness.

approaches. First (similar to Hypotheses 1 and 2), we used a regression approach, wherein overall procedural fairness perceptions were regressed onto the four procedural rules for applicants who failed at Time 2. The beta-weights for each rule resulting from these regression analyses provide an estimate of that rule's weighting, and the significance of differences between beta-weights can then be computed (see Cohen & Cohen, 1983; Cohen, Cohen, West, & Aiken, 2003) to test each hypothesis. The results of these regressions are listed in Table 2 (along with Time 2 passers for comparison purposes). This regression approach has been used by other researchers examining importance in various contexts (Breckler & Wiggins, 1989; Eagly, Mladinic, & Otto, 1994; Truxillo et al., 2001).

Second, we also computed dominance coefficients (Budescu, 1993; Johnson, 2000; Johnson & LeBreton, 2004; LeBreton, Binning, Adorno, & Melcher, 2004; LeBreton, Ployhart, & Ladd, 2004) to assess the relative importance of OTP at Time 2 for failers. Dominance analysis has been explicitly developed as a way to test relative importance and, unlike the above method involving the comparison of beta-weights, this method is able to consider the joint effects on the criterion shared by correlated predictors (making it particularly appropriate in this case, given the intercorrelations among the various procedural rules; see Table 1). In brief, the strength of dominance analysis lies in its ability to provide indexes of importance based on "a variable's direct effect (i.e., when considered by itself), total effect (i.e., conditional on all other predictors), and partial effect (i.e., conditional on subsets of predictors)" (Budescu, 1993, p. 544). Beta weights, on the other hand, only reflect a variable's unique effect and thus are deficient as indexes of relative importance. For these reasons, we also report results from dominance analyses, which involve computing the mean squared semipartial correlation across all possible subset regressions. Unfortunately, however, there are currently no statistical significance tests available for dominance analysis (LeBreton et al., 2004), which is why we also report the tests of differences between beta weights. However, to the extent that conclusions from both techniques converge, we have greater confidence in our results.

The regression results supported Hypothesis 3, in that, among those receiving negative feedback, OTP had the largest beta-weight in predicting overall procedural fairness (see Table 2, middle panel). Within-subject tests of differences between beta-weights revealed that OTP had a significantly larger beta-weight than each of the other three procedural rules: for the OTP–job relevance comparison, $F(1, 95) = 13.78, p < .001$ ($R^2 = .12$); for the OTP–communication comparison, $F(1, 95) = 10.82, p < .001$ ($R^2 = .10$); and for the OTP–interpersonal treatment comparison, $F(1, 95) = 13.93, p < .001$ ($R^2 = .12$). Of particular interest is the striking difference in beta weights for OTP (.574) and job relevance (.002) for failers (we shall return to this issue in the Discussion).

TABLE 3

Moderated Regression Results for Time 2

	B	SE B	Beta	t	p
(Constant)	−.263	.209		−1.26	.210
Condition	.335	.387	.203	.87	.388
Job relevance (JR)	.003	.080	.002	.04	.971
Opportunity to perform (OTP)	.625	.074	.583	8.46	<.001
Communication (C)	.160	.068	.162	2.36	.019
Interpersonal treatment (IT)	.247	.062	.251	3.99	<.001
Condition × JR	.209	.122	.561	1.71	.088
Condition × OTP	−.321	.117	−.853	−2.73	.007
Condition × C	.027	.096	.071	.28	.781
Condition × IT	.022	.093	.061	.23	.816

Note. $N = 249$; dependent variable was overall procedural fairness.

The dominance analyses further confirmed that OTP was the most important predictor of overall procedural fairness for those receiving negative feedback. The dominance coefficient for OTP for this group was .203, compared to .080 for communication, .064 for interpersonal treatment, and .053 for job relevance. In fact, OTP met the stringent criterion for "complete dominance" over each of the other rules (a variable is said to completely dominate another competing variable if the first has a higher squared semipartial correlation than the second *across all possible subsets of the remaining predictors*; Budescu, 1993). Thus, both the regression and dominance analyses converged in support of the hypothesis that OTP would be the most important predictor of overall fairness perceptions for those applicants having failed.

Finally, as an additional test of the above hypotheses, we also conducted a moderated regression on the Time 2 data ($N = 249$), examining the interactions between outcome (selection/rejection) and each of the four procedural rules. Given the direction of our hypotheses (and the theory of self-serving bias), we expected to find a significant interaction between OTP and outcome, such that OTP perceptions are more strongly related to overall procedural fairness for applicants who are rejected than those selected. The results of this regression are reported in Table 3. As predicted, a significant condition by OTP interaction was observed, $\beta = -.853$, $t(239) = -2.73$, $p < .01$ ($R^2 = .03$). In line with previous analyses and the general nature of our hypotheses, the form of this interaction indicated that OTP perceptions were more important in determining overall procedural fairness for applicants who were rejected than those who were selected.

Qualitative replication. The percentage of comments related to OTP versus the other procedural rules was examined to replicate the quantitative

results. First, regarding Hypothesis 2, OTP themes were more frequent in the comments of those receiving negative feedback (mean percentage = 36.3, $SD = 41.2$) than in the comments of the applicants prior to feedback (mean percentage = 30.2, $SD = 41.6$), but this difference failed to reach significance, $t(145) = .84, p > .05$. In addition, for those receiving negative feedback, the frequency of OTP themes in the comments (mean percentage = 36.3, $SD = 41.2$) was significantly greater than the frequency of job relevance themes (mean percentage = 4.1, $SD = 11.6$), $t(50) = 5.41$, $p < .001$; communication themes (mean percentage = 15.8, $SD = 31.5$), $t(50) = 2.48, p < .01$; and interpersonal treatment themes (mean percentage =14.4, $SD =29.6$), $t(50) = 2.83, p < .01$, thus confirming Hypothesis 3.[5]

Exploratory Analysis of OTP Determinants

Each thought unit previously identified as relevant to OTP was further coded according to the determinant(s) of OTP expressed in the statement (i.e., what aspects of the testing situation did the applicant invoke in his/her perception of whether or not there was sufficient OTP). In addition to the presumed determinants of OTP mentioned in the introduction, an initial reading of the comments by both coders suggested the need for additional components to fully capture the nature of applicants' OTP-related comments. In the end, each OTP-related thought unit was assigned to one of nine categories of determinants (see Table 4 for the listing of categories). Coefficient kappa for these classifications was .95 ("almost perfect" agreement, Landis & Koch, 1977), and any discrepancies were resolved via a consensus discussion.

Table 4 lists the frequency of comments (as a percentage of total OTP comments) falling into each of the identified categories at both Time 1 and Time 2 and illustrative quotations for most of the frequently occurring determinants (Time 2 includes all applicants providing comments, not just failers). Several observations can be made of the results from this (admittedly exploratory) analysis. First, the four most frequently mentioned determinants underlying applicants' perceptions of OTP were sufficient time, sufficient resources, a match between the test and one's background/experiences, and the appropriateness of the test format. Second, the most frequently mentioned categories of determinants were the same at Time 1 and Time 2, with one exception. Specifically, there were many

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[5]Because these variables represent percentages and were therefore somewhat skewed, we also conducted a log-transformation on each of the variables before testing the hypotheses. These transformations slightly increased each *t*-value, which did not change our substantive conclusions.

TABLE 4
Determinants of Opportunity to Perform Perceptions and Their Frequency (Time 1 and Time 2)

Determinant	Time 1 frequency (%)[a]	Sample quotations	Time 2 frequency (%)[a]	Sample quotations
Sufficient time to perform	34.3	"It is difficult to present one's self fully in the short amount of time of the past behavior interview" "I feel that some more time would allow the examinees more opportunity to demonstrate their abilities in terms of presentation"	14.0	"The background questionnaire . . . didn't allow nearly enough time for accurate responses . . ." "Penalized a person who had lots of experience [because] . . . difficult to complete that test portion in the allotted amount of time"
Sufficient resources (other than time) to perform (e.g., tools, directions on how to do each assessment)	22.4	"The hypotheticals in the interview seemed to be designed to be unfair because so little information was given about the situation" "Thank you for (allowing us to use computers). As you can tell by my handwriting, this benefited me greatly" "Written directions weren't clear; I wasn't aware it only needed to be a draft, not a finished product"	15.0	"The instructions regarding the essay "word count" were confusing and contradictory" ". . . didn't have the adequate opportunity to display my talents [because] the structure of the oral exam and the communication I received were extremely confusing"
Match between education/ experience/ background and test material	17.9	"The background questionnaire did not allow us to express vivid parts of my education and experience; how about a resume portion instead?"	23.75	"[On this new test,] I felt like I was able to express myself fully and freely discuss my professional experiences and language abilities"

TABLE 4 (continued)

Determinant	Time 1 frequency (%)[a]	Sample quotations	Time 2 frequency (%)[a]	Sample quotations
		"Interview addition was nice because it gave us a chance to present relevant experience." "(In the) written test, I didn't feel I could share my experiences and motivations adequately." "I think that the biographical questionnaire might count negatively against those that may simply not have had the opportunities others have had"		"I felt the oral exam . . . also captured my experience and background adequately." "The only section of either exam that I found to be not conducive to displaying my experience and potential was the biographical section . . ."
Appropriateness of test format for demonstrating abilities	11.9	"It is hard to assess my ability to be a _____ through a bubble test"	8.75	". . . didn't have the adequate opportunity to display my talents [because] the structure of the oral exam and the communication I received were extremely confusing" "The questionnaire should at least not be graded only on the quantity of questions answered but also on the quality. This would allow those of us with more experience to describe it fully without being penalized"
Opportunity to interact directly with assessors	7.4	"I greatly appreciated the opportunity to . . . discuss my background with the assessors." "I felt like I had a chance to really share who I am." "At no point was there significant interpersonal contact between interviewer and candidate"	5.0	". . . since part of it is based on how you personally interact with the examiners." "I prefer the one-on-two interview sessions because then the _____ folks can see the real . . ."

TABLE 4 (continued)

Determinant	Time 1 frequency (%)[a]	Sample quotations	Time 2 frequency (%)[a]	Sample quotations
"General" opportunity to perform perceptions[b]	4.5	"This is beneficial to showing a candidate's full potential" "Gave me a chance to present relevant experience"	21.25	"I was able to truly showcase my past experience, personality, and job qualities" "... an excellent opportunity to demonstrate my skills" "I felt that I was able to express myself fully"
Test appropriately challenging	1.5		5.0	"I believe it could be a bit more challenging to better showcase our abilities"
Opportunity to express oneself truthfully (as opposed to relying on impression management or being prone to social desirability)	—		5.0	"It is too easy for people to give answers they think they should give" "... and even if I did know, could not ethically just tell you what you wanted to hear"
A disturbance impacting opportunity to perform	—		2.5	"The examiners kept the microphone on in the room and kept whispering.... It was very distracting"

[a]Percentage of total OTP comments.
[b]Includes comments clearly indicating opportunity-to-perform-based issues, but those that were more general and did not invoke a specific aspect of the testing situation as a determinant of opportunity to perform.

TABLE 5

Comparison of Opportunity-to-Perform Perceptions Across Individual Exercises (Paired Comparisons)

Assessment	Time 1	Time 2 (failed)	Time 2 (passed)
One-way within-subjects ANOVA (F)	4.91*	7.358***	36.48***
	M	M	M
Memo exercise	4.15_a	3.89_a	4.45_a
BII	4.12_a	3.52_b	4.42_a
LGD	3.97_b	3.49_b	4.37_a
Situational interview	3.97_b	3.29_b	4.15_b
Past behavior interview	3.93_b	3.26_b	4.20_b
Verbal test	–	–	4.23_b
Written essay	–	–	4.22_b
Job knowledge test	–	–	4.10_b
Biodata questionnaire	–	–	3.26_c

Note. Within columns, means with different subscripts are significantly ($p < .05$) different from one another. Comparisons with the paper-and-pencil assessments would be inappropriate for Time 1 and Time 2 failers because applicants already knew they had passed these assessments, yet, either did not know about the others (at Time 1) or knew they had failed the others (at Time 2 for failers).

*$p < .05$.
**$p < .01$.
***$p < .001$.

more "general" OTP-related issues expressed at Time 2 than at Time 1. Third, within the most frequently mentioned issues, mention of sufficient time and/or resources was much more prevalent at Time 1, whereas at Time 2, concerns regarding the match between one's background and test materials were more prevalent. These last two observations tentatively suggest that what is most relevant and salient at Time 1 is the immediate, surface-level reactions regarding the OTP provided by the testing (e.g., "Did I have sufficient time to answer the questions?"), whereas at Time 2, concerns reflect more global and deeper issues regarding one's OTP (e.g., "Did the nature of this test truly allow me an opportunity to perform?").

Exploratory Analysis of How OTP Varies Across Assessments

The OTP means for each assessment are reported in Table 5 for three groups: all applicants at Time 1, failers at Time 2, and passers at Time 2. Whether or not there were significant omnibus differences across assessments within each of these three groups was tested with three separate one-way within-subjects ANOVAs (with assessments as levels; results are displayed in Table 5). As these ANOVAs show, there were significant differences within each group on OTP across assessments. Table 5 also

reports which assessments were significantly different from one another within each group, based on pairwise comparisons. We will return to a discussion of these differences in the Discussion section.

Discussion

The primary goal of this study was to examine the OTP procedural rule, which has been relatively ignored by previous applicant reactions research. The first part of our study directly responds to two important calls from researchers in this area: (a) "future research should assess the extent to which OTP drives fairness perceptions" (Gilliland & Hale, 2005, p. 424); and (b) "researchers should consider the dynamic nature of justice reactions, with the primary determinants of fairness perceptions changing over the course of the hiring process" (Gilliland & Hale, 2005, p. 412; see also Gilliland, 1993; Leventhal, 1980; Ryan & Ployhart, 2000; Truxillo et al., 2001). Results suggest that OTP does in fact drive fairness perceptions to a significant degree (confirming Gilliland's (1993) model and Truxillo et al.'s (2001) findings) *and* that the importance of OTP in this regard increases substantially for those receiving negative feedback. Thus, one important conclusion of this study is that it makes a difference *when* researchers measure justice perceptions and rules; this is an issue that has not been explicitly addressed in the justice literature.

To aid in interpreting both these findings, we included three other procedural rules as controls: communication, interpersonal treatment, and job relevance. The latter of these, job relevance, has been the most frequently studied procedural rule. In fact, we would argue that the implicit assumption in the applicant reactions literature that job relevance is the most important procedural dimension affecting fairness perceptions of selection tests (Chan et al., 1998; Gilliland, 1993) has even become somewhat of a "received doctrine" (Barrett, 1972). In contrast, our results from both the quantitative and qualitative data clearly suggest that OTP perceptions are as important as job relevance (and communication and interpersonal treatment) perceptions overall and can be significantly more important under certain circumstances (namely, receiving negative feedback). Thus, a second conclusion of this research is that OTP concerns are likely more important to applicants than their previous coverage in the fairness literature would suggest.

Following in the footsteps of Chan and colleagues (Chan, 1997; Chan et al., 1997, 1998), we attempted to integrate justice theory with self-serving bias in the study of applicants' fairness perceptions. As Chan et al. (1998) have noted, "whereas the justice perspective has been consistently applied in research on test fairness and related perceptions, the self-serving bias perspective is only beginning to emerge" (p. 238). As evidence of a

general self-serving bias in our study, and in line with previous research, those who failed the selection process perceived the tests as less fair than those passing. However, the unique contribution of this research to the self-serving bias literature was the examination of the role of OTP perceptions in this process. Unlike Chan et al. (1997) and Chan et al. (1998), we argue that it is the violation of the OTP rule (i.e., "This test did not give me the opportunity to show what I know") that provides the most "self-serving" explanation for failure. And indeed, our results (both quantitative and qualitative) clearly illustrated that this rule was much more important for failers than were any of the other three rules (in fact, job relevance ceased to be an important predictor of overall procedural fairness at all for those rejected).

Like Chan and colleagues, however, we feel the self-serving bias perspective has great merit as a theoretical explanation for many aspects of applicant reactions. In fact, as we read through the open-ended comments provided by applicants, we were struck by the extent to which these comments reflected very self-serving concerns rather than fairness about the process as it applies to all. We would continue to encourage future research in this area, especially that directed at identifying the ways in which applicants may be different from current employees with regard to justice issues (see Ryan & Ployhart, 2000). In addition, greater theoretical development is required regarding the mechanisms underlying perceptions of the various procedural justice dimensions. In this study, we used theory regarding the importance of self-serving attributions in the case of failure to frame our hypotheses, but there is no theory (nor even any empirical evidence) relevant to whether OTP itself provides the most self-serving attributions. In a sense then, we were in the position of having to build this theory. Greater effort in general should be devoted toward developing a richer sense of these selection procedural justice dimensions to aid future empirical investigations.

This study makes one additional contribution to the applicant fairness literature, in suggesting the potential value of focusing on the unique responses of *rejected candidates*, highlighting the differential priorities (in terms of procedural rules) for these candidates as compared to both applicants before feedback and selected applicants. In doing so, we have partially responded to Shapiro's (2001) call to start "asking injustice victims where we next need to go" (p. 235). Focusing on rejected candidates may suggest the differential appropriateness of one justice theory over another, or even suggest altogether different directions for future justice research. In addition, given that it is rejected candidates whose negative reactions are most likely to lead to litigation or other adverse consequences for the organization (Arvey & Faley, 1988), studying these people more closely may make sense for practical reasons as well.

Practical Implications

Given the numerous benefits to organizations of positive applicant re-actions (see e.g., Bauer et al., 1998; Colquitt, Conlon, Wesson, & Ng, 2001; Macan, Avedon, Paese, & Smith, 1994; Rynes, 1993; Smither et al., 1993), all organizations should be concerned about fairness perceptions. We see our results regarding (a) the importance of OTP, (b) changes in salience over time and for failers, (c) differences in OTP across assessments, and (d) other determinants of OTP, as having at least four implications for practitioners concerned about applicant reactions.

First, the present results suggest that the questions of *when* to measure applicant reactions and *from whom* applicant reactions should be measured matter. Ideally, organizations would assess applicant reactions to selection procedures before they have received feedback, and then again after feedback, for both those selected and those rejected. Both constituent groups are important and, as our results suggest, are likely to care about different things. In addition, as this study clearly illustrates, measuring reactions at just one time period would be problematic in terms of conclusions regarding both mean level of reactions (i.e., how positive they are) and which aspects of the procedure are most important or salient.

Second, our results have implications for an alternative way to "measure" the OTP present in a selection system. That is, rather than relying on just applicant *reactions* (something that has to be done, by definition, after the fact), our qualitative results regarding the determinants of OTP in selection systems suggest an alternative method for organizations to measure the likely extent of perceived OTP in their selection systems. In particular, organizations might take an "image-audit"-based approach, like that suggested in the general recruitment literature (Highhouse, Zickar, Thorsteinson, Stierwalt, & Slaughter, 1999; Lievens & Highhouse, 2003), to assess the extent to which the identified *determinants* of OTP (e.g., sufficient time to perform, sufficient resources to perform; see Table 4) are present in their selection systems.

Third, the present study indicates that OTP is an important component of overall procedural fairness perceptions. Thus, organizations concerned about fairness have to be concerned about OTP. In addition, because there has been little to no previous systematic study of OTP perceptions, much less is known about how to improve perceptions of this procedural rule. However, the results regarding determinants of OTP have obvious implications for organizations seeking to improve such perceptions, as do the results regarding differences in OTP across assessments. Regarding the former, organizations would be wise to provide "instructional sets" to applicants, highlighting the fact that the assessments are especially designed to (a) provide them with sufficient time and (b) sufficient resources to

perform, (c) be free of distractions, and (d) overlap with their backgrounds and experiences. Relatedly, results also suggest the importance of an organization *understanding its applicant pool*. That is, one important determinant of OTP perceptions revealed in the present study was the correspondence between the assessments and applicants' backgrounds. If an organization knows what its applicant pool looks like with regard to background variables (e.g., prior employment history, level of education, technical savvy), they are better positioned to make choices about the format of specific assessments to include to increase OTP (e.g., whether to use a past performance behavioral interview vs. an interview designed to get at broader experiences and motivation; whether to use computer-mediated testing).

Regarding the latter (i.e., differences in OTP across assessments), organizations may want to ensure they are incorporating at least some assessments perceived as providing greater OTP, which the present results (see Table 5) suggest may include non-written testing formats and less structured interviews and exclude biodata (which was consistently rated as lowest on OTP; this was true even for the Time 1 applicants, who knew they had passed the biodata exam but did not yet know the outcome for the other tests). However, there is an interesting "justice dilemma" (Cropanzano & Wright, 2003; Folger & Cropanzano, 1998) that many organizations face in practice, in that applicants often have the most negative reactions to the most valid procedures (and vice versa). Our results suggest the same may be true for OTP perceptions specifically, particularly regarding the differences across the three interviews (the unstructured BII was perceived as highest in OTP, although we know structured interviews to be higher in validity). In this case, it may make good sense for organizations to incorporate both types of interviews. In addition, it is also the case that different tests might be perceived as fair on one dimension but not on others (see Truxillo et al., 2001). Thus, practitioners should exercise caution in relying on only one dimension of fairness in selecting tests to administer. Several of these practical recommendations for increasing OTP are summarized in Table 6; however, these should be viewed as preliminary recommendations only, subject to additional confirmation in future research.

Finally, the relative importance techniques used in this study are likely to be superior to simply asking applicants which dimensions of procedural justice are most important to them. This has implications not only for researchers in this area, but also for organizations concerned with trying to understand determinants of fairness in order to improve overall perceptions of fairness. That is, as Johnson and LeBreton (2004) have noted, "most direct ratings of importance tend to cluster around the high end of the scale, with very little variability. Especially with employee opinion

TABLE 6

Preliminary Practical Recommendations for Improving Opportunity-to-Perform Perceptions in Selection Systems

Testing aspects	Practical recommendations
Format of selection tests	Include at least some tests presented in a non-written format
	In particular, exercise-based (i.e., performance) tests seem to be well perceived
Interviews	Use both structured and unstructured interviews during selection procedures in order to satisfy the dual objectives of enhancing applicants' OTP perceptions while maintaining validity
	Select interview content and format based on the applicant profile in terms of past experience, background, and so on
Time and other resources	Provide adequate time and other resources (tools, information, equipment, etc.) as well as a distraction-free environment for the applicant
Appropriateness of test material	Study the characteristics of the likely applicant pool (e.g., prior employment, level of education, technical savvy) to design test material to increase the perceived overlap between test material and the applicants' actual qualifications and background
Instruction sets	Provide clear instructions and information before the test that the assessments are especially designed to (a) provide applicants with sufficient time and sufficient resources to perform, (b) be free of distractions, and (c) overlap with their backgrounds and experiences
	Stress these same aspects of the testing situation when communicating the outcome to applicants who have failed

surveys, respondents would be very likely to rate every issue as being important for fear that anything that is not given high importance ratings will be taken away from them. *Relative weights allow decision makers to allocate scarce resources to the issues that are actually most highly related to respondent satisfaction*" (p. 253; emphasis added).

Strengths, Limitations, and Directions for Future Research

This study had several strengths, making further unique contributions to the applicant fairness literature. First, we included qualitative data (i.e., the open-ended comments) to replicate our quantitative results. This not only strengthens the empirical support for our conclusions, but it also makes our methods fairly unique in the justice arena. In fact, we identified only one other organizational justice study (Greenberg, 1986) and one applicant reactions study (Gilliland, 1995) using qualitative methodology.

We would strongly encourage future researchers to use more qualitative approaches to better understand important justice issues, such as what causes individuals to feel injustice, how might it have been prevented and/or resolved, and how victims of perceived injustice react to such situations (see Shapiro, 2001).

Other strengths of this study include the "realness" of the sample and design. Specifically, the study took place in an operational selection context, where there were multiple, in-depth selection assessments. In addition, the nature of the sample ("real world" applicants; a professional-level position) both increases the generalizability of the study and extends the applicant fairness literature beyond the frequently used nonprofessional or lower-level positions (and even college students; Chan, 1997; Chan et al., 1997). The fact that the applicant pool for this position typically includes 11% test retakers also has positive implications for the generalizability as well, although the specific implications of this for applicant OTP perceptions should be studied in future research. Finally, regarding design, the fact that the Time 2 data were collected approximately 3 months (as opposed to immediately) after receiving feedback may provide a more conservative test of our hypotheses, in the sense that differences in the salience of the rules found in this study were not based on merely a knee-jerk, momentary and emotional reaction to passing or failing, but rather were sustained over several months. However, the possibility remains that the results may have been different with a different time lag. Although we believe the most likely possibility is that results would have been stronger if the Time 2 (postfeedback) measure had been collected immediately after feedback, future research explicitly designed to address the effect of varying time lags should be conducted. In addition, from a practical perspective, both delayed and immediate reactions are likely to be important to organizations, hence, both should be studied by researchers in this area.

Despite the contributions and strengths of this study, there are also a number of possible limitations to consider. First, data related to both the procedural rules and overall fairness were collected from a single source (candidates) via a single method (survey). However, although this may serve to inflate the correlation between the procedural rules and overall procedural fairness (see Crampton & Wagner, 1994), it would not have influenced the testing of our hypotheses (which predicted different degrees of relationships), as all of the procedural rules were measured in this way. Moreover, the regression analyses test only for unique variance; by definition, then, any shared method variance is not included (Cohen et al., 2003). Perhaps more importantly, our selection decision factor was, in fact, collected via a different method and different source (i.e., the organization's databases), and we also included the qualitative data (i.e., a different method) in testing our predictions. Finally, because it was in fact applicants' OTP *perceptions* that were of interest in the present

study, it is unclear how the data could have been collected in any other way.

A second potential limitation is that we only examined the effect of one variable (outcome of the hiring decision) on the salience of the OTP procedural rule. Gilliland (1993) has suggested four possibly important factors affecting salience, including the types of selection procedures encountered, the extent to which a procedural rule is violated, the applicant's prior selection experiences, and the timing of the fairness assessment. Although the fact that we examined only one piece of the salience issue may limit the potential contribution of this study, examining the effect of negative feedback seemed a very appropriate place to start, for both practical (i.e., the value of knowing what those who are rejected think) as well as theoretical (i.e., self-serving bias) reasons. Nonetheless, future research should endeavor to examine all of the proposed factors affecting the salience of all of the various procedural rules to applicants (not just the OTP rule).

In particular, there are a number of ways in which the stage/time in the selection process might affect the salience of various justice rules (Gilliland, 1993; Gilliland & Hale, 2005). For example, because of applicants' motives to do well, they might in the initial stages of the process be more interested in information about the test, its contents, evaluation procedures, time requirements, *et cetera*. However, toward the end of the process, other rules like feedback and reconsideration opportunity might become more important. On the other hand, it has been noted in the broader justice literature that "what comes first" can be more salient throughout the process (van den Bos, Vermunt, & Wilke, 1997), suggesting that interpersonal treatment and communication (which applicants are likely to encounter first) might be most salient. It is likely that the reconsideration rule (for obvious reasons) would also become more important after negative feedback than it was before. Similarly, salience could also be affected by the availability of information about each justice dimension. For example, if there is no information available to applicants about reconsideration opportunity or consistency of treatment, it is likely that they will fall back on those dimensions that they have information about, such as interpersonal treatment or job relevance. In uncertain or ambiguous situations, applicants may use these other dimensions as heuristic devices to judge the overall fairness of the authority (Lind, 2001), thus making them more important as determinants of fairness judgments.

Third, in terms of our findings regarding differences in OTP across assessments, the results are somewhat limited in the sense that the assessments confound method of test with the construct examined. Thus, we are unable to determine which is driving the OTP perceptions. Although this does not matter so much from a practical perspective (given that method and construct are also frequently confounded in selection tests

in practice), it is more problematic from a theoretical perspective, in terms of understanding the causal mechanisms. Thus, future research should examine whether it is primarily the method or the construct of selection assessments that drives procedural fairness perceptions.

A final possible limitation worth noting is that our selection outcome variable (i.e., selected/rejected) was dichotomous, unlike Chan et al.'s (1998) continuous performance measure. The inclusion of a continuous variable may have allowed for a more powerful test of the impact of feedback on the salience of procedural rules. On the other hand, we would argue that it is, in fact, the *dichotomous* outcome that applicants face in real selection situations (i.e., was I selected or rejected) that is most important to them. That is, it seems unlikely that candidates care as much about their particular scores as they do about whether or not they passed (in fact, it is very likely that many selection applicants are never even informed about their specific scores on the assessments). However, the possibility that failers may care more about their particular score than passers provides an interesting direction for future research. For example, applicants who fail by a small margin may be more readily able to generate counterfactuals (Folger, 1986a, 1986b, 1993; Folger & Cropanzano, 1998) and thus may respond with stronger (un)fairness judgments.

A final additional area for future research is the examination of the role of individual difference variables in the salience of various fairness perceptions. For example, some individuals (e.g., those with high self-esteem) might be more likely to discount negative feedback or look for self-serving excuses than others. Such an approach could offer more fine-tuned predictions regarding interactions between person and situational factors affecting salience and would also be in line with more general calls for the examination of individual difference variables in fairness research (e.g., Ryan & Ployhart, 2000).

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