

Investigating the Moderating Role of Cultural Practices on the Effect of Selection Fairness Perceptions

Benjamin M. Walsh*, Michael D. Tuller*, Janet L. Barnes-Farrell* and Russell A. Matthews**

*Department of Psychology, University of Connecticut, 406 Babbidge Road, Unit 1020, Storrs, CT 06269, USA.
benjamin.walsh@uconn.edu

**Department of Psychology, Louisiana State University, Baton Rouge, LA 70803, USA

Utilizing a sample of applicants to positions in a global corporation, we examined whether cultural practices moderate the effect of selection fairness perceptions on organizational attractiveness and job choice. Positive relationships were anticipated between fairness perceptions and outcomes, and performance orientation and uncertainty avoidance cultural practices were hypothesized to moderate the effects of structural and information sharing perceptions, respectively. Structural fairness perceptions were positively associated with both outcomes, but information-sharing perceptions were significantly related only to organizational attractiveness. National variability in the effect of selection fairness perceptions was observed only for the effect of structural perceptions on organizational attractiveness. Performance orientation moderated this effect such that the strongest relationship was seen among applicants from more performance-oriented countries.

1. Introduction

From the standpoint of successful recruitment, the selection process is a critical interaction period between employers and prospective employees because applicants' perceptions about their experience are a significant predictor of key outcomes including evaluations of the attractiveness of the hiring organization and intentions to accept offers of employment (Hausknecht, Day, & Thomas, 2004). Applicant perceptions of fair treatment during the hiring process are particularly important (Gilliland, 1993; Hausknecht *et al.*, 2004; Steiner & Gilliland, 2001) as findings generally suggest a positive relationship between selection fairness perceptions and desired outcomes, although more consistent effects have been observed for 'soft' (e.g., applicant evaluations) as opposed to 'hard' (e.g., applicant behaviors) outcomes (Truxillo, Steiner, & Gilliland, 2004).

With corporate globalization, however, it is also important to investigate the degree to which contextual

factors affect applicants' perceptions of the selection process. Applicant reactions researchers have suggested that an applicant's cultural context may be a key factor to consider in such research (e.g., Steiner & Gilliland, 2001; Truxillo *et al.*, 2004). However, most empirical work to date has studied variability in reactions to selection methods between applicants from different countries without directly studying aspects of societal culture (i.e., cultural values and practices; Hofstede, 1980; House, Hanges, Javidan, Dorfman, & Gupta, 2004) that are assumed to account for any observed differences (e.g., Anderson & Witvliet, 2008; Bertolino & Steiner, 2007; for an exception see Ryan, Boyce, Ghumman, Jundt, & Schmidt, 2009). Likewise, societal culture is a known driver of national differences in staffing practices (Ryan, McFarland, Baron, & Page, 1999), but to our knowledge only a single applicant reactions study (Ryan *et al.*, 2009) has explicitly incorporated societal culture into tested models.

The present study extends knowledge of applicant reactions to selection procedures by exploring the extent to which societal cultural practices affect the importance of particular selection fairness perceptions. Using data from a nationally diverse sample of applicants

Note. A portion of this research was presented at the 2009 conference of the Society for Industrial and Organizational Psychology in New Orleans, LA.

to positions in a single organization and cultural practices scores derived from the Global Leadership and Organizational Behavior Effectiveness project (Project GLOBE; House *et al.*, 2004), we examined the moderating role of two theoretically relevant cultural practices (i.e., performance orientation and uncertainty avoidance) on the effect of selection fairness perceptions. Two outcomes were of interest in this study: perceptions of the attractiveness of the hiring organization and job choice (i.e., whether the applicant accepted the job offer from the hiring organization). In the following section, we discuss organizational justice as it relates to the hiring process and outline our hypotheses concerning the effect of selection fairness perceptions on each outcome. We then describe the focal cultural dimensions and specify the hypothesized impact of cultural dimensions on our relationships of interest.

1.1. Applicant reactions and organizational justice

Gilliland's (1993) conceptual framework for selection fairness perceptions provides a vehicle for theorizing about organizational justice concepts in the context of the selection process. Gilliland (1993) distinguished between applicant perceptions of fairness in outcomes (i.e., distributive justice) and fairness of the selection process (i.e., procedural justice). In this study, we focused on applicants' procedural justice perceptions because organizations have far more control of the fairness of the selection process than they have over the fairness of selection outcomes (Truxillo *et al.*, 2004). Thus, research on applicant perceptions of the fairness of the selection process is likely more informative to practitioners working in employee selection.

Gilliland (1993) outlined 10 procedural justice rules which pertain to three main categories of fairness perceptions: (a) those pertaining to the *formal characteristics* of the selection process, (b) fairness perceptions relating to *explanation* including the extent to which information is shared about the selection process, and (c) the quality of *interpersonal treatment* during the selection process. Steiner and Gilliland (2001) made minor conceptual modifications to Gilliland's (1993) structure resulting in three categories of rules labeled *structural aspects* (i.e., job relatedness, opportunity to perform, consistency of treatment, reconsideration opportunity), *information sharing* (i.e., process information, two-way communication, decision justification), and *interpersonal treatment* (i.e., interpersonal sensitivity). In the present study, we narrowed our focus to the influence of two categories of procedural rules derived from Steiner and Gilliland's (2001) categorization: structural fairness perceptions and information sharing fairness perceptions.

Gilliland (1993) argued that selection fairness perceptions are important determinants of reactions during the

hiring process (e.g., applicant recommendations, test motivation) and attitudes and perceptions following hiring (e.g., job satisfaction), although the empirical research to date has shown more support for the former category of outcomes. Moreover, Truxillo *et al.* (2004) reviewed the applicant reactions literature and found greater evidence that selection fairness perceptions predicted what the authors termed 'soft' outcomes. Soft outcomes include perceptual variables such as organizational attractiveness and intentions to accept offers of employment (Bauer *et al.*, 2001; Macan, Avedon, Paese, & Smith, 1994; Lazar, Zinger, & Lachterman, 2007). For example, Bauer *et al.* (2001) found that procedural fairness perceptions predicted several outcomes including recommendation intentions. Similarly, Bauer, Maertz, Dolen, and Campion (1998) found that the perceived job relatedness of the selection process was a significant predictor of organizational attractiveness. On the other hand, Truxillo *et al.* (2004) deemed findings on 'hard' outcomes equivocal due to the lack of consistency in observations, and because less research has studied effects on such outcomes.

We sought to further explore the relationship between selection fairness perceptions and outcomes. Based on principles of organizational justice and the empirical research to date, we hypothesized that structural fairness perceptions (i.e., job relatedness, opportunity to perform) and information sharing fairness perceptions (i.e., two-way communication, process information) would be positively related to organizational attractiveness. In addition, because we examined data from a subsample of applicants who had been offered a job with the hiring organization and also had at least one other job offer, we were able to assess the degree to which selection fairness perceptions are associated with job choice. Chapman, Uggerslev, Carroll, Piasentin, and Jones (2005) conducted a meta-analysis of the effects of various predictors on job choice and they observed a positive albeit nonsignificant effect of selection fairness perceptions. However, only three studies were identified which assessed this relationship. Thus, there is a need for research on the extent to which job choice is influenced by fairness perceptions in samples of real job applicants (Chapman *et al.*, 2005; Ryan & Huth, 2008; Truxillo *et al.*, 2004).

Given that our focal sample included applicants with more than one job offer, we expected that the flexibility in employment options would enable applicants to be more sensitive to their selection fairness perceptions, such that the perceived fairness of the hiring process would have a meaningful influence on job choice for this sample of applicants. Similarly, evidence suggests that selection fairness perceptions are a stronger predictor of outcomes among real job applicants compared with nonapplicants (e.g., student participants; Chapman *et al.*, 2005). Consequently, we expected that structural and

information sharing fairness perceptions would be positively associated with job choice.

Hypothesis 1a: Structural fairness perceptions are positively related to organizational attractiveness.

Hypothesis 1b: Information sharing fairness perceptions are positively related to organizational attractiveness.

Hypothesis 2a: Structural fairness perceptions are positively related to job choice.

Hypothesis 2b: Information sharing fairness perceptions are positively related to job choice.

1.2. *National variability in applicant fairness reactions and societal cultural dimensions as explanatory factors*

Researchers have theorized that societal culture may explain variation in reactions to selection procedures and the degree to which selection fairness perceptions predict various outcomes (e.g., Steiner & Gilliland, 2001). Most empirical research has focused on examining whether there is variability in reactions to particular selection techniques across countries such as the United States, Germany, Greece, Italy, Singapore, Portugal, and France (Anderson & Witvliet, 2008; Bertolino & Steiner, 2007; Marcus, 2003; Moscoso & Salgado, 2004; Nikolaou & Judge, 2007; Phillips & Gully, 2002; Steiner & Gilliland, 1996). In the majority of these studies, student participants are asked to read descriptions of several selection techniques and then evaluate the techniques with respect to various selection fairness rules and other ratings. Ryan and Huth (2008) suggest that reactions to selection procedures have been fairly consistent across the countries examined. Nonetheless, findings from many of these studies are limited due to the use of samples of non-applicants who evaluate descriptions of techniques rather than samples of real applicants who experience actual selection techniques in the process of seeking an open position.

Only research by Ryan *et al.* (2009) has attempted to study the extent to which societal culture moderates the effect of selection fairness perceptions on outcomes. Ryan and colleagues investigated reactions to selection procedures among a sample of undergraduate students in 21 countries who completed several selection tools, although they were not actually applying for an open position. The researchers were also interested in whether cultural values explained variability in the effect of selection fairness perceptions. In particular, Ryan and colleagues examined cultural values (i.e., independent and interdependent self-construal, achievement orientation, ascription orientation) and the moderating effect of culture on relationships between (a) selection fairness

perceptions and ratings of process favorability and (b) process favorability ratings and job-related intentions (i.e., intentions to apply for a job, job acceptance intentions). Moderating effects of culture were hypothesized at the individual level and also explored at the country level by aggregating cultural values within each country, although their attention centered on relationships at the individual level. However, Ryan and colleagues found no evidence for a moderating effect of culture at either level.

The central aim of the present study was to further examine whether societal culture influences the effects of selection fairness perceptions on perceptual and behavioral outcomes. Although the focus of the present study is similar to Ryan *et al.* (2009), it differs in several meaningful ways. First, Ryan and colleagues tested their hypotheses on a sample of undergraduate students rather than with applicants to real positions. Although student samples are often utilized in applicant reactions studies, researchers question the use of samples of nonapplicants (Truxillo *et al.*, 2004). Accordingly, our sample was composed of applicants to open positions in a single global organization. Second, only 21 countries were represented in Ryan and colleagues which may have led to low power to detect cross-level effects (Scherbaum & Ferreter, 2009). Scherbaum and Ferreter (2009) reviewed several simulation studies examining power in cross-level interactions and the general conclusion was that level-2 sample size was a stronger driver of power than level-1 sample size, and roughly 30 level-2 units are needed to detect cross-level interactions. In the current study, we investigated the effects of culture with applicants residing in 39 countries, albeit with considerable variation in the number of applicants residing in the various countries (see Table 1).

Further, Ryan *et al.* (2009) studied the effect of cultural values, which refer to how individuals believe things should be. Cultural values differ from cultural practices which represent perceptions of reality, that is, how members in a society actually behave (House *et al.*, 2004). Using data collected from roughly 17,000 middle managers in 62 countries, Project GLOBE researchers concluded that both values and practices are important features to consider in understanding societal culture (Hanges & Dickson, 2004). The relationship between cultural values and practices is not well understood, however, as GLOBE researchers generally found negative relationships between values and practices, and they state that they expect 'the relationship between values and practices is nonlinear and more complex than initially assumed' (Javidan *et al.*, 2004, p. 730). Given this tenuous relationship between cultural values and practices, and the fact that cultural practices have not yet been investigated as a contextual factor affecting applicant reactions to selection procedures, in the present study we focused solely on cultural practices and their influence on the effect of selection fairness perceptions. In the following

Table 1. Country sample sizes and cultural practices scores

Country	n	Percent of sample	PO	UA
United States	347	14.0	4.45	4.15
India	314	12.7	4.11	4.02
Australia	277	11.2	4.37	4.40
Brazil	245	9.9	4.11	3.74
Canada	239	9.7	4.46	4.54
China	142	5.7	4.37	4.81
Germany	128	5.2	4.42	5.35
Ireland	102	4.1	4.30	4.25
Spain	101	4.1	4.00	3.95
Netherlands	100	4.0	4.46	4.81
United Kingdom	95	3.8	4.16	4.70
Philippines	46	1.9	4.21	3.69
Hungary	43	1.7	3.50	3.26
Argentina	32	1.3	3.63	3.63
Poland	31	1.3	3.96	3.71
Costa Rica	26	1.1	4.10	3.84
Singapore	25	1.0	4.81	5.16
Hong Kong	23	0.9	4.69	4.17
Malaysia	22	0.9	4.16	4.59
New Zealand	22	0.9	4.86	4.86
Indonesia	19	0.8	4.14	3.92
Taiwan	15	0.6	4.27	4.04
South Africa	10	0.4	4.72	4.64
France	8	0.3	4.43	4.66
Italy	8	0.3	3.66	3.85
Columbia	7	0.3	3.93	3.62
Thailand	7	0.3	3.84	3.79
Portugal	5	0.2	3.65	3.96
Finland	4	0.2	4.02	5.11
Mexico	4	0.2	3.97	4.06
Russian Federation	4	0.2	3.53	3.09
Switzerland	4	0.2	5.04	5.42
Austria	3	0.1	4.47	5.10
Denmark	3	0.1	4.40	5.32
Japan	3	0.1	4.22	4.07
Republic of Korea	3	0.1	4.53	3.52
Sweden	3	0.1	3.67	5.36
Egypt	2	0.1	4.15	3.97
Venezuela	2	0.1	3.41	3.55

Notes: PO = performance orientation; UA = uncertainty avoidance. N = 2474. Cultural practices scores are response bias corrected scores taken from Project GLOBE (House *et al.*, 2004).

section, we describe the cultural practices of focus in the present research, performance orientation and uncertainty avoidance, and the hypothesized relationships among selection fairness perceptions, cultural practices, and outcomes.

1.3. Cultural practices: Performance orientation and uncertainty avoidance

Performance orientation constitutes 'the degree to which an organization or society encourages and rewards group members for performance improvement and excellence' (House & Javidan, 2004, p. 13). Performance orientation originated from McClelland's (1961) research on need for achievement (i.e., the constant need to do

better) that built on early work on Protestant values. It can also be traced to the development of the achievement versus ascription distinction which suggests that cultures that value achievement award status and advancement based on skill development and accomplishments whereas ascription-based societies award status based on factors such as family lineage, alma mater, and age (Parsons & Shils, 1951). However, Javidan (2004) notes that Project GLOBE's conceptualization of performance orientation as a cultural dimension differs from prior conceptualizations of related constructs. Performance orientation is conceptualized as a specific cultural dimension in which societies may vary from high to low whereas prior research has tended to contrast the dimension with others (e.g., achievement vs ascription; Parsons & Shils, 1951).

Societal differences in performance orientation can manifest in several key ways (Javidan, 2004). For example, more performance-oriented societies, such as the United States and Switzerland, tend to value characteristics such as individual achievement, performance, and ultimately are concerned with results (Javidan, 2004). On the other hand, less performance-oriented societies, such as Italy and Argentina, are more prone to value factors including relationships, loyalty, and who one is rather than what it is that they do (Javidan, 2004). However, Javidan (2004) also asserts that 'societal culture is far too complex to be presented in black and white' (p. 246), suggesting that it is important to keep in mind that such differences reflect tendencies rather than absolutes. China and other Asian countries are good exemplars of this complexity as they score higher in performance-oriented practices (Javidan, 2004). Confucian teachings have influenced Asian culture and emphasize the importance of both (a) hard work and skill development and (b) building and maintaining relationships (Hofstede & Bond, 1988; Yeung & Tung, 1996). Guanxi is a term used in China to describe the network of relationships and it is considered an important factor for business success (Yeung & Tung, 1996). However, societal emphasis on performance improvement is the fundamental component of performance orientation as a cultural dimension, which is reflected in Project GLOBE as their Confucian Asia region comprised of Taiwan, Singapore, Hong Kong, South Korea, China, and Japan is among the most performance-oriented regions (Javidan, 2004).

Because performance-oriented societies are more concerned with high standards and performance improvement, applicants from such countries may be expected to place greater value on demonstrating their personal achievements, skills, and abilities during the hiring process. On the other hand, less performance-oriented cultures are less concerned with demonstrable knowledge, ability, and performance. Thus, applicants from such cultures should not be as concerned with having job-related selection content and demonstrating

their skills and abilities during the hiring process. For this reason, structural selection fairness perceptions should be more influential among applicants from more performance-oriented cultures relative to applicants from less performance-oriented cultures:

Hypothesis 3a: Performance orientation moderates the relationship between structural selection fairness perceptions and organizational attractiveness. We expect the relationship to be stronger for applicants from more performance-oriented countries.

Hypothesis 3b: Performance orientation moderates the relationship between structural selection fairness perceptions and job choice. We expect the relationship to be stronger for applicants from more performance-oriented countries.

Hofstede (1980) originally defined uncertainty avoidance, the second cultural practice of interest in the present study, as the degree to which individuals in an organization or society actively seek to avoid uncertainty by utilizing accepted norms or beliefs to understand situations. Societal variance in uncertainty avoidance is reflected in several areas including formalization of interactions (Sully de Luque & Javidan, 2004). For example, more uncertainty avoidant societies, such as Germany or China, tend to interact in more rigid and formal manners and rely on formal policies and procedures, whereas less uncertainty avoidant countries, such as Russia, tend to have more informal interactions and rely less on formalized procedures. Uncertainty avoidance is also related to innovation, such that increased tolerance for uncertainty promotes innovation. For instance, Shane (1993) found that Hofstede's cultural scores for uncertainty avoidance were predictive of the number of national trademark approvals between 1975 and 1980. This is evident in a country like Japan which scores lower in uncertainty avoidance practices and has made significant strides in technological advancements in recent decades based partially on their national innovation systems (Mowery & Oxley, 1995).

Because of the greater societal concern with avoiding ambiguity, applicants from uncertainty avoidant cultures may be expected to place greater emphasis on having clearly defined procedures and having the opportunity to ask questions about the process, thus minimizing ambiguity associated with the hiring process as much as possible. Applicants from less uncertainty avoidant cultures should place less value on the level of explanation about the selection procedures as a result of greater societal tolerance for ambiguous situations. Consequently, information sharing selection fairness perceptions should be more influential for applicants from more uncertainty avoidant cultures relative to applicants from cultures low in uncertainty avoidance. As a result, the

relationship between information sharing selection fairness perceptions and outcomes should be stronger among applicants residing in more uncertainty avoidant countries:

Hypothesis 4a: Uncertainty avoidance moderates the relationship between information sharing selection fairness perceptions and organizational attractiveness. We expect the relationship to be stronger for applicants from more uncertainty avoidant countries.

Hypothesis 4b: Uncertainty avoidance moderates the relationship between information sharing selection fairness perceptions and job choice. We expect the relationship to be stronger for applicants from more uncertainty avoidant countries.

2. Method

2.1. Participants and procedure

Participants included applicants to positions in a global technology firm between the first quarter of fiscal year 2007 and the third quarter of fiscal year 2008. Six web-based surveys were conducted during this time in which subsets of applicants during the aforementioned period were sent an invitation via email to participate in a voluntary, anonymous online survey hosted on a server at a northeastern university in the United States. The email invitations were sent by an employee of the hiring organization in an attempt to increase response rates but all data management was handled by the university to help ensure participants' anonymity. The invitation emails were issued in the primary language of each country and explained that the survey should only be completed if the recipient was conversant in English. In addition, participants were told that the survey was anonymous and that their responses could not affect their opportunity to be hired. All prospective participants also received an email reminder about the survey approximately 2 weeks following the initial invitation.

The central aim of the survey was to assess applicants' perceptions of the hiring process. The survey was designed to be brief to help increase participation rates and took approximately 10 minutes to complete. Because participants could have applied to the organization for multiple positions and potentially in multiple countries, respondents were asked to think about their most recent application and selection process experience with the hiring organization while responding to the survey. Finally, only one invitation to participate was sent to any individuals who applied to multiple positions within the same sampling timeframe.

A similar sampling methodology was followed in each of the six waves of data collection. In each wave, several countries were targeted for data collection based on

criteria identified by the hiring organization (e.g., hiring volume). Applicants to positions in these countries during the previous fiscal quarter (in survey waves 1–5) and previous two fiscal quarters (in survey wave 6) were randomly sampled to participate in the survey. Four sampling strategies were utilized and varied by country depending on the applicant volume during the fiscal quarter(s). The four sampling strategies were as follows: (a) 10% of the country applicant pool was randomly sampled for countries with $>75,000$ applicants, (b) 20% of the country applicant pool was randomly sampled for countries with between 25,000 and 75,000 applicants, (c) a total of 5,000 applicants were randomly sampled for countries with between 5,000 and 25,000 applicants, and (d) all applicants were sampled for countries with fewer than 5,000 applicants. The number of countries sampled varied across surveys, ranging from 16 countries in the first three waves to 36 countries in the final data collection.

Across the six phases of data collection, invitations to participate were issued to 376,271 applicants and 46,133 responded (12.26% overall response rate).¹ However, the data presented here focus on the responses of 2,474 applicants who self-reported being offered a position with the hiring organization that was either accepted or refused (i.e., job choice), and who completed all remaining measures relevant to the present study including control variables. The remainder of the sample that was not selected for analysis included respondents in various stages of the hiring process (e.g., applicant was actively involved in the hiring process, applicant completed the hiring process but a decision had not been made, the application was declined, a job offer was extended but the applicant had not made a decision). Thus, examining this particular subset of applicants enabled us to study job choice as an outcome.

The countries of residence for the sample of applicants are presented in Table 1, along with country sample sizes and the values for the cultural practices. The final sample included applicants residing in 39 countries, where the five most common countries of residence included the United States (14.0%), India (12.7%), Australia (11.2%), Brazil (9.9%), and Canada (9.7%). A number of characteristics of the respondents are outlined in Table 2. The sample was primarily male (70.5%) and most applicants were experienced professionals (65.2%). Furthermore, most applicants reported that they did not apply for a people management position (81.3%). The sample was also highly educated as 77.0% of participants reported holding an undergraduate or graduate degree. Finally, the most common assessment that applicants participated in was a face-to-face interview (80.3%) followed by a phone interview (54.0%), paper-and-pencil employment testing (22.3%), and online employment testing (17.9%).

For comparative purposes, we conducted χ^2 analyses on several demographic variables to assess the extent to

Table 2. Sample characteristics

Characteristic	Percent of Sample
Sex	
Male	70.5
Female	29.5
Status	
Student or recent graduate	34.8
Experienced professional	65.2
Applied for a people management position	
Yes	18.7
No	81.3
Position located in country of primary residency	
Yes	92.5
No	7.5
Accepted job offer	
Yes	79.5
No	20.5
Education	
Pre-college	4.6
Some college or university experience	16.1
College or university graduate	47.6
Master's degree	27.2
PhD	2.2
Other	2.2
Activities participated in during the hiring process	
Telephone interview	54.0
Face-to-face interview	80.3
Online employment test	17.9
Paper-and-pencil employment test	22.3
Other	7.2
Top five professional areas applied to	
Consultant	17.0
IT specialist	15.4
Software development	12.2
Sales	8.8
Project management	6.2

Note: $N = 2474$. Values do not sum to 100% for the 'Activities participated in during the hiring process' category because applicants could report multiple activities.

which the study sample differed from remaining applicants who were not retained for the purposes of this study because they had no data on the job choice criterion.² The study sample was not significantly different from the total sample with respect to sex, $\chi^2(1) = .13$, $p > .05$, $\varphi = .00$. However, the study sample included significantly fewer students/recent graduates than the total sample, although the effect size for this difference was small, $\chi^2(1) = 7.10$, $p < .01$, $\varphi = .01$ (Cohen, 1988). In addition, the study sample included significantly more applicants with some college or university experience and significantly fewer applicants reporting 'other' for educational status, $\chi^2(5) = 20.04$, $p < .01$, Cramér's $V = .01$, but this difference was also small (Cohen, 1988). These differences are consistent with the notion that applicants being offered a position by the hiring organization should have characteristics such as greater education and experience relative to other applicants. The fact that significantly fewer students/recent graduates and more

applicants with college/university experience were present in the study sample is consistent with this logic.

2.2. Measures

2.2.1. Dependent variables

Two variables were of interest in the present study: applicants' attraction to the hiring organization and job choice. Organizational attractiveness was assessed with a composite of two Likert-type items (i.e., '[Company name] is attractive to me as a place for employment,' 'Even if I were offered a comparable position with similar pay and benefits at another company, I would accept an offer with [Company name]') evaluated on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) where higher scores reflect a more positive evaluation. Cronbach's α reliability for the measure was $\alpha = .66$. Job choice was measured with a single item in which respondents indicated whether they did (coded 1) or did not (coded 0) accept the job offer.

2.2.2. Selection fairness perceptions

Respondents indicated their overall perceptions of procedural fairness with respect to all activities they had participated in during the hiring process. Two forms of selection fairness perceptions were of interest: structural and information sharing. Structural selection fairness perceptions were assessed with two Likert-type items (i.e., 'Job relevant skills were assessed during the hiring process,' 'I was able to demonstrate my skills and abilities during the hiring process'), which were averaged to form a composite score. Information sharing selection fairness perceptions were measured with a composite of two items as well (i.e., 'I understood in advance the hiring process,' 'I was encouraged to ask questions about the hiring process'). All items were evaluated on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) and higher scores reflect more positive selection fairness perceptions. For structural perceptions, Cronbach's $\alpha = .72$, and for information sharing perceptions, Cronbach's $\alpha = .66$.

2.2.3. Cultural practices

Performance orientation and uncertainty avoidance cultural practices scores were derived from Project GLOBE (House et al., 2004). Specifically, the response bias corrected scores were used in the current study. Evidence of the psychometric properties of the cultural practices scales is provided by Hanges and Dickson (2004) and Gupta, Sully de Luque, and House (2004). Because performance orientation and uncertainty avoidance scores were compiled by country, these values were assigned to respondents by their country of residency. Performance orientation scores for the countries available in the current study ranged from 3.41 to 5.04 ($M = 4.18$, $SD = .39$) and uncertainty avoidance scores

ranged from 3.09 to 5.42 ($M = 4.27$, $SD = .63$). Country cultural practices scores are presented in Table 1. Higher scores reflect higher levels of each cultural dimension.

2.2.4. Control variables

Participants reported their career status, which was included as a covariate in the analyses to serve as a proxy for experience with selection processes, a factor which has been shown to influence reactions to selection procedures (Ryan & Ployhart, 2000). Status was coded '0' for applicants who were students or recent graduates and '1' for experienced professionals. Participants also completed a single item, which served as an overall comparison of the job offer received from the hiring organization to all other job offers the applicant had received. Thus, all participants in the study had at least one other job offer that was compared with the offer received from the hiring organization. This item was included as a covariate in the analyses due to its expected positive relationship with the focal outcomes. The overall job offer comparison item was scored on a scale ranging from 1 (*significantly worse*) to 5 (*significantly better*). Finally, we included the number of hiring activities that respondents had participated in during the hiring process as an additional covariate in the analyses. We requested information on the five hiring activities reported in Table 2 so responses on this variable ranged from 1 to 5.

3. Results

3.1. Data analysis overview

To account for the hierarchical data structure associated with having applicants nested in their country of residence, hypotheses pertaining to the organizational attractiveness outcome were examined using hierarchical linear modeling (HLM) and hypotheses concerning job choice were examined using hierarchical generalized linear modeling (HGLM). All analyses were conducted using HLM v6.6 (Raudenbush, Bryk, Cheong, Congdon, & du Toit, 2004). Country of residence served as the level-2 grouping variable, and in all analyses continuous level-1 and level-2 predictors were centered at the grand mean.

The HLM model building process proceeded in the following manner. The first step in the analysis was to estimate a null model used to calculate the intraclass correlation coefficient (ICC) to derive the proportion of variation in organizational attractiveness explained by country of residency (Raudenbush & Bryk, 2002). In the second step, level-1 covariates (i.e., status, overall job offer evaluation) were included and then structural and information sharing selection fairness perceptions were added in the third step. Level-1 effects were allowed to vary across country of residence at initial entry into the model. Nonsignificant level-1 random effects were fixed in subsequent analyses because such effects do not vary

significantly across level-2 units. However, we retained all fixed effects in the models regardless of whether the effects reached statistical significance. Finally, level-2 predictors (i.e., performance orientation and uncertainty avoidance cultural practices) were included as predictors of the level-1 intercept and level-1 slopes where applicable (i.e., where there was significant variation in the level-1 intercept or the level-1 slopes).

We relied on the deviance statistic as an empirical means of guiding the model building process (Raudenbush & Bryk, 2002). The deviance statistic is a badness-of-fit index as higher scores indicate poorer fit of the model to the data. Nested models can be compared with respect to their deviances, and the difference in the deviances 'has a large-sample χ^2 distribution with degrees of freedom equal to the difference in the number of parameters estimated' (Raudenbush & Bryk, 2002, pp. 60–61). To allow for comparisons of model deviances based on both fixed and random effects, full maximum likelihood estimation was used.

A similar model building strategy was followed in HGLM analyses, although there are two points worth noting. First, because job choice is dichotomous and thus is not normally distributed, the Bernoulli sampling distribution was used and the natural log of the odds of accepting the job offer served as our dependent variable (i.e., log-odds; Tate, 2004). In addition, to allow for comparisons of nested models based on model deviances during model construction, we utilized the Laplace method of estimation which is described by Raudenbush *et al.* (2004) as providing parameter estimates which approximate maximum likelihood estimates.

3.2. Principal components analysis (PCA)

Before hypothesis testing, we first examined the discriminant validity of the fairness dimensions using PCA with direct oblimin rotation. We relied on the scree plot (Cattell, 1966) and Kaiser criterion (eigenvalues >1.0 ; Kaiser, 1960) to evaluate the PCA solutions. In the first PCA, the Kaiser criterion suggested that a single component should be retained as only one component had an eigenvalue >1.0 (i.e., 2.20) and this component accounted for 54.89% of the variation. However, the scree plot suggested that a two-component solution was more appropriate; a second component had an eigenvalue of .89 and accounted for an additional 22.23% of the variation in the data. Thus, a two-component solution was forced in a second PCA and the loadings for the items in this solution are reported in Table 3. The two structural fairness items loaded strongly on the structural fairness dimension and the two information sharing fairness items loaded strongly on the information sharing dimension. Consequently, we felt this evidence supported the distinction between the structural and information sharing fairness dimensions.

Table 3. Component loadings from principal components analysis with oblimin rotation

Item	Component	
	1	2
I understood in advance the hiring process (information sharing fairness)	.25	.90
I was encouraged to ask questions about the hiring process (information sharing fairness)	.49	.82
Job relevant skills were assessed during the hiring process (structural fairness)	.88	.38
I was able to demonstrate my skills and abilities during the hiring process (structural fairness)	.88	.32

3.3. Descriptive statistics

Zero-order correlations, descriptive statistics and internal consistency estimates are presented in Table 4. Overall job offer evaluation had the strongest correlation with both outcomes (job offer acceptance, $r=.40$, $p<.01$; organizational attractiveness, $r=.38$, $p<.01$) demonstrating that the variable was a good candidate for inclusion as a covariate in the analyses. Also, both structural and information sharing selection fairness perceptions were positively correlated with the outcomes. The positive relationships between selection fairness perceptions and outcomes were consistent with our expectations and with previous research (e.g., Hausknecht *et al.*, 2004).

3.4. Organizational attractiveness

Analysis of the null model demonstrated that there was significant between-country variation in ratings of organizational attractiveness, but the amount of variation was negligible ($ICC=.003$). The ICC of .003 indicates that only .3% of the variation in organizational attractiveness is attributable to country of residency (whereas 99.7% of the variation is within-country, between-person variation). Next, status, overall job offer evaluation, and number of hiring activities were included as predictors. Their inclusion offered improved fit of the model as evidenced by a significant decrease in the model deviance, $\Delta\chi^2(12)=384.53$, $p<.001$. However, there was no longer significant between-country variance in the intercept and there was not significant variation in the slopes for status and the number of hiring activities. These random effects were deleted, and their removal did not result in a significant increase in the model deviance, $\Delta\chi^2(9)=1.50$, $p>.05$, thus the more parsimonious model without these effects was retained. Overall evaluation of the job offer had a significant positive effect on organizational attractiveness ($\gamma=.23$, $p<.001$) but status ($\gamma=.00$, $p>.05$) and number of hiring activities did not

Table 4. Zero-order correlations and descriptive statistics for study variables

<div[](https://i.imgur.com/3Q12XuF.png)

Notes: $N = 2474$. Coefficient α estimates are displayed along the diagonal. Job choice was coded '0' Did not accept job offer and '1' Accepted job offer. Status was coded '0' for applicants who were students or recent graduates and '1' for experienced professionals. Country-level scores for performance orientation and uncertainty avoidance cultural practices were assigned to their respective individual cases. Descriptive statistics for cultural practices reflect country-level statistics ($N = 39$). Means and standard deviations in parentheses reflect values based on the total (unrestricted) sample for comparative purposes. Sample sizes for the means and standard deviations based on the total sample were as follows: organizational attractiveness (41,523), structural perceptions (27,111), information sharing perceptions (30,266), overall job offer evaluation (3,973), and number of hiring activities (34,222). We also note that the mean number of hiring activities for the total sample was less than one because 57% of the total sample had not yet participated in any hiring activities. $*p < .05$. $**p < .01$.

($\gamma = .02$, $p > .05$). Collectively, the covariates accounted for 14.46% of the within-country variation in organizational attractiveness.

Selection fairness perceptions were included as predictors in the next step. The inclusion of the fairness perceptions resulted in a significant decrease in the model deviance suggesting improved fit of the model, $\Delta\chi^2(7) = 370.72$, $p < .001$. However, the effect of overall evaluation of the job offer no longer varied significantly across countries, and neither did the effect of information sharing perceptions. The random effects for information sharing perceptions and overall evaluation of the job offer were removed, and their deletion did not result in a significant increase in the model deviance, $\Delta\chi^2(5) = 7.71$, $p > .05$. Thus, the more parsimonious model was retained. Structural fairness perceptions ($\gamma = .23$, $p < .001$) and information sharing perceptions ($\gamma = .14$, $p < .001$) were both positively associated with ratings of organizational attractiveness above and beyond the effects of the covariates, providing support for Hypotheses 1a and 1b. The fairness perceptions accounted for 14.15% of the remaining variation in organizational attractiveness, and the collection of level-1 predictors accounted for a total of 26.28% of the within-country variation in organizational attractiveness.

Because significant between-country variation remained in the structural perceptions slope, we were able to investigate performance orientation cultural practices as a predictor of the slope variability to test Hypothesis 3a. Performance orientation was included as a predictor of the structural fairness perceptions slope, and also as a predictor of the intercept to account for a potential main effect of performance orientation. The inclusion of performance orientation resulted in an improvement in the fit of the model to the data as evidenced by the significant decrease in the model deviance, $\Delta\chi^2(2) = 7.38, p < .05$. Performance orientation had a significant positive effect on the structural

fairness perceptions slope ($\gamma = .20, p < .05$), demonstrating that the effect of structural fairness perceptions on organizational attractiveness was stronger for applicants from countries with greater performance orientation practices, in support of Hypothesis 3a.

We used Preacher, Curran, and Bauer's (2006) tool to plot the cross-level interaction which is presented in Figure 1 with low and high values for structural fairness perceptions and performance orientation corresponding to one standard deviation below and above their respective means (Aiken & West, 1991). Performance orientation accounted for 20.07% of the variation in the structural fairness perceptions slope, although significant variability remained in the slope that was unaccounted for by performance orientation. Finally, the lack of significant between-country variation in the information sharing perceptions slope precluded an assessment of the moderating role of uncertainty avoidance cultural practices, so Hypothesis 4a was not supported. Results from the final model are summarized in Table 5.

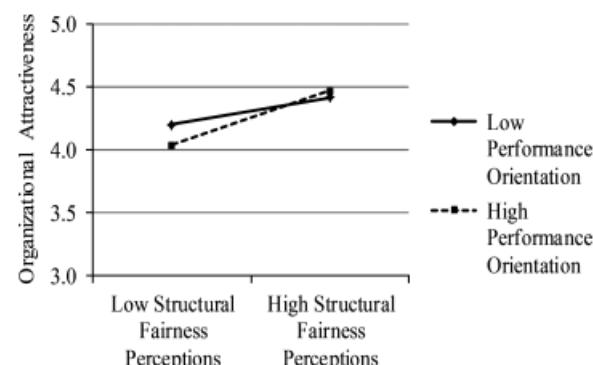


Figure 1. Cross-level moderation of performance orientation practices on the relationship between structural fairness perceptions and organizational attractiveness.

Note: Low and high values reflect one standard deviation below and above the mean for each measure (Aiken & West, 1991).

Table 5. Summary statistics from final model predicting organizational attractiveness

Fixed effects	Coefficient	R^2
Model for intercept (β_0)		
Intercept (γ_{00})	4.28***	
Performance orientation (γ_{01})	-0.07	
Model for structural fairness perceptions slope (β_1)		
Intercept (γ_{10})	0.23***	
Performance orientation (γ_{11})	0.20*	
Model for information sharing perceptions slope (β_2)		
Intercept (γ_{20})	0.14***	
Model for overall job offer evaluation slope (β_3)		
Intercept (γ_{30})	0.17***	
Model for number of hiring activities slope (β_4)		
Intercept (γ_{40})	0.00	
Model for status slope (β_5)		
Intercept (γ_{50})	-0.02	
Random effects		
Between-country variance in structural fairness perceptions slope (τ_{00})	0.01**	20.07%
Within-country variance (σ^2)	0.37	26.28%

Note: * $p < .05$. ** $p < .01$. *** $p < .001$. R^2 was calculated following procedures outlined by Raudenbush and Bryk (2002): (Baseline variance-Final variance)/Baseline variance).

3.5. Job choice

Findings from the null HGLM demonstrated that the average log-odds of accepting a job offer across countries was positive and significantly different from zero ($\gamma = 1.39$, $p < .001$) and the effect varied significantly across countries ($\tau_{00} = .11$, $p < .001$). The 1.39 average log-odds translates into an odds ratio (OR) of 4.03. The logistic transformation (i.e., OR/(1 + OR)) was applied to compute the average probability of applicants accepting a job offer across countries (Hox, 2002). The average probability equaled .80 (i.e., 4.03/[1 + 4.03]), indicating a high average probability of applicants accepting a job offer with the hiring organization.

The covariates were entered in the second step and their inclusion provided a significant improvement in the fit of the model, $\Delta\chi^2(12) = 440.72$, $p < .001$. However, the slopes for overall job offer evaluation and status did not vary significantly across countries. These random effects were removed and the fit of the model to the data was unchanged, $\Delta\chi^2(7) = 10.42$, $p > .05$. Although the effect of status on job choice was nonsignificant ($\gamma = -.10$, OR = .90, $p > .05$), number of hiring activities ($\gamma = .17$, OR = 1.19, $p < .01$) and overall job offer evaluation ($\gamma = .99$, OR = 2.69, $p < .001$) had significant positive effects on job choice.

Selection fairness perceptions were included in the next step and their inclusion led to a significant decrease in the model deviance, $\Delta\chi^2(9) = 47.39$, $p < .001$. However, the effects of structural and information sharing

fairness perceptions did not vary significantly across countries. Thus, the random effects for fairness perceptions were removed. The fit of the model was not significantly reduced, $\Delta\chi^2(7) = 12.60$, $p > .05$, so this final model was retained. Results from the final model are presented in Table 6. Structural fairness perceptions had a significant positive effect on job choice ($\gamma = .43$, OR = 1.54, $p < .05$), supporting Hypothesis 2a. All else equal, when two applicants differed by one point with respect to their structural fairness perceptions, the odds of accepting a job offer for the applicant with the more positive perceptions were 1.54 times the odds for the applicant with the less positive perceptions. Information sharing fairness perceptions did not have a significant effect on job choice ($\gamma = .05$, OR = 1.05, $p > .05$), thus Hypothesis 2b was not supported. Finally, because of the lack of variability in the effects of structural and information sharing perceptions on job choice, investigations into cross-level moderation were not warranted and Hypotheses 3b and 4b were not supported.

4. Discussion

One goal of the current study was to investigate the effects of structural and information sharing selection fairness perceptions on ratings of organizational attractiveness and job choice. An additional goal was to assess the extent of national variability in the effect of selection fairness perceptions, and whether cultural practices account for such variability. Support was found for Hypotheses 1a and 1b, which predicted that both structural and information sharing fairness perceptions would be positively associated with organizational attractiveness. These findings are consistent with prior research (e.g., Hausknecht *et al.*, 2004).

Support was also found for Hypothesis 2a which predicted that more positive structural fairness perceptions would lead to greater odds of accepting the job

Table 6. Summary statistics from final model predicting job choice

Fixed effects	Coefficient	Odds ratio	95% CI
Model for intercept (β_0)			
Intercept (γ_{00})	1.83***	6.26	4.49, 8.75
Model for structural fairness perceptions slope (β_1)			
Intercept (γ_{10})	0.43*	1.54	1.09, 2.17
Model for information sharing perceptions slope (β_2)			
Intercept (γ_{20})	0.05	1.05	0.81, 1.38
Model for overall job offer evaluation slope (β_3)			
Intercept (γ_{30})	0.92***	2.51	2.19, 2.89
Model for number of hiring activities slope (β_4)			
Intercept (γ_{40})	0.14	1.15	0.99, 1.32
Model for status slope (β_5)			
Intercept (γ_{50})	-0.14	0.87	0.65, 1.16

Note: CI = confidence interval. * $p < .05$. ** $p < .01$. *** $p < .001$.

offer from the hiring organization. This finding responds to calls for research on the influence of applicant fairness perceptions on behavioral criteria and helps to clarify that applicants' reactions are related to outcomes beyond attitudes and perceptions (Chapman *et al.*, 2005; Ryan & Huth, 2008; Truxillo *et al.*, 2004). As discussed earlier, only three studies were included in Chapman *et al.*'s (2005) meta-analytic assessment of relationships between selection fairness perceptions and job choice. Chapman *et al.* (2005) observed a nonsignificant effect of selection fairness perceptions on job choice, but they also found evidence that the effect of selection fairness perceptions on some outcomes (i.e., organizational attractiveness, acceptance intentions) is stronger in samples of real applicants relative to samples of nonapplicants. The limited research on fairness perceptions – job choice relationships meant that moderators of this effect (e.g., applicants vs nonapplicants) could not be examined, but our finding that structural fairness perceptions are positively associated with job choice in a sample of applicants with multiple employment options is consistent with Chapman *et al.*'s (2005) observation.

Although increases in structural fairness perceptions predicted increases in the odds of job choice, the same could not be said for information sharing fairness perceptions and Hypothesis 2b was not supported. Previous research has also shown differential effects of fairness perceptions on outcomes. For example, Bauer *et al.* (1998) found that time 1 job relatedness predicted time 3 organizational attractiveness, but other fairness perceptions (e.g., information known about the test) did not. Findings from the present study are similar to this research and suggest that fairness perceptions also differentially contribute to behavioral criteria given that structural fairness perceptions were significantly associated with job choice and information sharing perception were not.

Furthermore, significant between country variation was found in the effect of structural fairness perceptions on organizational attractiveness and performance orientation cultural practices accounted for a portion of the slope variation in the expected manner, thus supporting Hypothesis 3a. The relationship between structural fairness perceptions and organizational attractiveness was positive among all applicants; however, it was strongest for applicants from countries with the highest levels of performance orientation practices. This is consistent with the notion that applicants from performance-oriented countries place greater value on demonstrating their personal achievements, skills, and abilities during the hiring process due to greater societal concern for high standards and performance improvement (Javidan, 2004). This observation contributes to knowledge of moderators of the effect of fairness perceptions (Truxillo *et al.*, 2004), and builds on researchers' understanding of conditions in which societal cultural differences manifest. In

particular, societal culture appears to have some influence on the value that applicants place on particular fairness perceptions.

This particular finding diverges from observations made by Ryan *et al.* (2009) as they found no evidence that cultural values interact with selection fairness perceptions to predict outcomes. In considering findings from the current study as a whole, however, observations are generally consistent with the conclusion made by Ryan and colleagues that societal culture appears to have a limited influence on the effect of selection fairness perceptions. In the present study no support was found for Hypotheses 3b, 4a, and 4b as no significant between-country variation was observed in the effect of information sharing selection fairness perceptions on organizational attractiveness, or for either set of fairness perceptions in predicting job choice. Indeed, even though the relationship between structural perceptions and organizational attractiveness was stronger among applicants from more performance-oriented countries, the effect was nonetheless positive for all applicants, and remaining effects did not vary across countries.

4.1. Implications for practitioners

Findings from the present study reinforce the need for practitioners to insure that applicants' selection fairness perceptions are positive. Of most importance to practitioners, we found that greater structural perceptions were associated with increased odds of accepting a job offer and this effect was seen despite controlling for applicants' comparative evaluation of the job offer from the hiring organization. Thus, where applicable, attempts should be made to utilize selection techniques such as work samples which allow applicants to demonstrate their skills and abilities and which entail content that is job related because the use of such techniques should translate into a greater likelihood of acquiring top talent. Furthermore, because little country-level variability was observed in the effect of selection fairness perceptions, there appears to be little need for global organizations to consider tailoring their selection procedures when hiring for similar kinds of jobs and with applicants of comparable skill levels to meet fairness-related needs of applicants in different societies.

4.2. Strengths of the present study

This study has several methodological strengths that respond to limitations in previous research. First, although it is a common practice in applicant reactions research to use undergraduate student samples and/or samples of nonapplicants, a practice which has been criticized (Truxillo *et al.*, 2004), our analyses were conducted based on applicants to real positions. Second, the sample of applicants included individuals residing in 39

countries which, to our knowledge, is the most geographically diverse sample utilized in an applicant reactions study to date. Hausknecht *et al.* (2004) noted that the vast majority of applicant reactions research is conducted with samples from North America so this study helps address the need for research on applicant reactions in populations that are more geographically heterogeneous. This country-level sample size also offered adequate power to detect the cross-level interactions which were a central focus of the study (Scherbaum & Ferreter, 2009).

Third, we explored the influence of selection fairness perceptions on both perceptual and behavioral criteria. Researchers (e.g., Chapman *et al.*, 2005; Ryan & Huth, 2008; Truxillo *et al.*, 2004) have noted the lack of focus on behavioral outcomes of applicant reactions relative to studies examining perceptual outcomes and this study helps to fill this void. Finally, we relied on data from two sources including self-report data from applicants and cultural practices scores from Project GLOBE (House *et al.*, 2004) which helps protect from single-source bias. Moreover, the GLOBE performance orientation data proved useful in being able to account for a portion of the national variability in the effect of structural fairness perceptions on organizational attractiveness, a finding which lends support to the validity of the GLOBE societal culture data.

4.3. Limitations and directions for future research

Although this study has several strengths, a number of limitations are also apparent. First, the overall response rate for the study was relatively low at 12.26%. We acknowledge that this low response rate may limit the extent to which the study sample is representative of the overall population of applicants to the hiring organization, and there is the possibility that some self-selection biases may be operating which led some applicants to respond whereas others did not. Our data provide no insight into what those processes may be, if indeed they are present, but regardless it is important to note the low response rate, its potential causes, and implications.

Second, the measures used to collect self-report data were developed specifically for use in the present study due in part to the practical constraints on the length of the survey. This includes the job choice criterion which was self-reported by the applicants. In an ideal situation job choice would be captured by the hiring organization but we did not have access to such data. Thus, we acknowledge that job choice is limited as a behavioral criterion because it was self-reported. Furthermore, two of our measures (i.e., information sharing fairness perceptions, organizational attractiveness) had internal consistency estimates that were lower than desired. Future research with global samples of applicants is needed that utilizes validated measures of the constructs under study such as Bauer *et al.*'s (2001) measure. On a related note,

only two of the three categories of fairness perceptions from Steiner and Gilliland's (2001) framework were incorporated into the study, so future research is needed to determine whether cultural practices influence the effect of the quality of interpersonal treatment received during the hiring process on perceptual and behavioral criteria.

Third, although the types of jobs for which applicants were being hired was relatively diverse, the generalizability of the findings from this study may be limited due to our focus on applicants to positions in a particular company, one which tends to recruit highly educated individuals and for which applicants tend to accept offers of employment at a high rate. In fact, within several of the countries all applicants reported accepting the job offer. Furthermore, applicants in our sample share the underlying similarity that they are seeking positions in a corporation that was founded in the United States and espouses Western values, to some extent. Likewise, all respondents had to be able to speak English to complete the survey. This collection of factors could have hampered our ability to detect national variation in the effect of selection fairness perceptions on organizational attractiveness and job choice, in particular. Future research may be needed to investigate the effect of selection fairness perceptions with geographically diverse samples of applicants to positions in more than one organization, or a single organization not so influenced by Western culture.

Fourth, it is important to note that in the present study applicants applied for a wide range of positions and, thus, the content of the selection procedures and the methods used likely varied considerably across applicants. Our estimate of the number of hiring activities was included as a covariate in the analyses and it had a negligible relationship with study variables, but this is only a rough estimate and we were not able to account for other factors such as variability within a particular method (e.g., variability in the content and structure of a face-to-face interview). This variability increases the noise in the data and may affect the ability to detect effects of interest. Thus, future research is also needed which minimizes variability in the kinds of selection methods and content that applicants are exposed to.

Finally, although findings from this study suggest only a minimal influence of culture, it may be more meaningful to investigate the effects of societal culture under conditions in which applicants' perceptions are not positive (i.e., in which a violation of fairness has occurred; Truxillo *et al.*, 2004). For example, Gilliland (2008) has argued that traditional means of assessing justice perceptions are problematic because of their inability to predict actual behaviors (as opposed to attitudes) because most experiences of (un)fairness are inconsequential, and it is the rare/extreme experiences that should be a focus for researchers. Similarly, Truxillo *et al.* (2004) described research on the threshold of unfairness and it may be that aspects of

societal culture, such as cultural dimensions, may drive variability in one's threshold. For example, applicants from performance-oriented societies may have stronger reactions to hiring situations in which they do not have an opportunity to perform their skills and abilities compared with applicants from less performance-oriented societies. Fairness perceptions in the present research were generally positive so such an assessment was not possible, but research on the effect of culture on applicant reactions may prove even more worthwhile if experiences of unfairness become the focus of study.

5. Conclusion

We studied the effects of selection fairness perceptions on perceptual (i.e., organizational attractiveness) and behavioral criteria (i.e., job choice) and the extent to which cultural practices moderate these relationships. Structural selection fairness perceptions were the most consistent predictor as positive relationships were observed between structural perceptions and both outcomes beyond the effects of the covariates. Although performance orientation practices moderated the effect of structural fairness perceptions on organizational attractiveness, no other effects varied significantly across countries. Collectively, findings to date suggest that culture may play only a minor role in affecting applicants' reactions to selection procedures, but future research on cultural differences in applicant reactions may prove more enlightening if experiences of unfair treatment during the hiring process become the focus of study.

Notes

1. Response rates ranged from 5.27% to 24.72% across the countries of residency, but it is important to note that the countries that were sampled do not correspond entirely with the countries of residency for the applicants in the study sample. The range of response rates reflects the response rates for 29 of the 39 countries included in the analyses; these 29 countries had applicants that were sampled in at least one of the six survey waves. A response rate could not be calculated for the remaining 10 countries (i.e., Austria, Denmark, Egypt, Finland, France, Italy, Portugal, Sweden, and Switzerland) because they are countries that the hiring organization did not sample for the survey. Nevertheless, a number of applicants indicated that their most recent hiring process experience pertained to a position within one of these 10 countries. This suggests that some respondents applied to positions within multiple countries including positions in countries that were not sampled for the survey process. Because we focused their attention on their most recent hiring process experience, the most recent hiring experience did not necessarily coincide with the hiring experience that lead to them being sent an invitation to participate in the study.

2. The total sample size in these analyses ranged from 39,333 to 41,428 as a result of missing data.

References

Aiken, L.S. and West, S.G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

Anderson, N. and Wityliet, C. (2008). Fairness reactions to personnel selection methods: An international comparison between the Netherlands, the United States, France, Spain, Portugal, and Singapore. *International Journal of Selection and Assessment*, 16, 1–13.

Bauer, T.N., Maertz, C.P., Dolen, M.R. and 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. and Campion, M.A. (2001). Applicant reactions to selection: Development of the selection procedural justice scale (SPJS). *Personnel Psychology*, 54, 387–419.

Bertolino, M. and Steiner, D.D. (2007). Fairness reactions to selection methods: An Italian study. *International Journal of Selection and Assessment*, 15, 197–205.

Cattell, R.B. (1966). The scree test for the number of factors. *Multivariate Behavioral Research*, 1, 245–267.

Chapman, D.S., Uggerslev, K.L., Carroll, S.A., Piasentin, K.A. and Jones, D.A. (2005). Applicant attraction to organizations and job choice: A meta-analytic review of the correlates of recruiting outcomes. *Journal of Applied Psychology*, 90, 928–944.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd edn.). Hillsdale, NJ: Erlbaum.

Gilliland, S. (2008). The tails of justice: A critical examination of the dimensionality of organizational justice constructs. *Human Resource Management Review*, 18, 271–281.

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

Gupta, V., Sully de Luque, M. and House, R.J. (2004). Multisource construct validity of GLOBE scales. In House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W. and Gupta, V. (Eds.), *Culture, leadership, and organizations: The GLOBE study of 62 societies* (pp. 152–177). Thousand Oaks, CA: Sage.

Hanges, P.J. and Dickson, M.W. (2004). The development and validation of the GLOBE culture and leadership scales. In House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W. and Gupta, V. (Eds.), *Culture, leadership, and organizations: The GLOBE study of 62 societies* (pp. 122–151). Thousand Oaks, CA: Sage.

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

Hofstede, G. (1980). *Culture's consequences: International differences in work related values*. Beverly Hills, CA: Sage.

Hofstede, G. and Bond, M.H. (1988). The Confucius connection: From cultural roots to economic growth. *Organizational Dynamics*, 16, 4–21.

House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W. and Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage.

House, R.J. and Javidan, M. (2004). Overview of GLOBE. In House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W. and Gupta, V. (Eds.), *Culture, leadership, and organizations: The GLOBE study of 62 societies* (pp. 3–8). Thousand Oaks, CA: Sage.

Hox, J. (2002). *Multilevel analysis: Techniques and applications*. Mahwah, NJ: Lawrence Erlbaum Associates.

Javidan, M. (2004). Performance orientation. In House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W. and Gupta, V. (Eds.), *Culture, leadership, and organizations: The GLOBE study of 62 societies* (pp. 239–281). Thousand Oaks, CA: Sage.

Javidan, M., House, R.J., Dorfman, P.W., Gupta, V., Hanges, P.J. and Sully de Luque, M. (2004). Conclusions and future directions. In House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W. and Gupta, V. (Eds.), *Culture, leadership, and organizations: The GLOBE study of 62 societies* (pp. 723–732). Thousand Oaks, CA: Sage.

Kaiser, H.F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, 20, 141–151.

Lazar, A., Zinger, A. and Lachterman, B. (2007). The influence of prefeedback selection justice on perceptions of overall procedural justice and organizational attractiveness in a real-life selection procedure. *European Journal of Work and Organizational Psychology*, 16, 94–109.

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

Marcus, B. (2003). Attitudes towards personnel selection methods: A partial replication and extension in a German sample. *Applied Psychology: An International Review*, 52, 515–532.

McClelland, D.C. (1961). *The achieving society*. Princeton, NJ: Van Nostrand.

Moscoso, S. and Salgado, J.R. (2004). Fairness reactions to personnel selection techniques in Spain and Portugal. *International Journal of Selection and Assessment*, 12, 187–196.

Mowery, D.C. and Oxley, J.E. (1995). Inward technology transfer and competitiveness: The role of national innovation systems. *Cambridge Journal of Economics*, 19, 67–93.

Nikolaou, I. and Judge, T.A. (2007). Fairness reactions to personnel selection techniques in Greece: The role of core self-evaluations. *International Journal of Selection and Assessment*, 15, 206–219.

Parsons, T. and Shils, E.A. (1951). *Towards a general theory of action*. Cambridge, MA: Harvard University Press.

Phillips, J.M. and Gully, S.M. (2002). Fairness reactions to personnel selection techniques in Singapore and the United States. *International Journal of Human Resource Management*, 13, 1186–1205.

Preacher, K.J., Curran, P.J. and Bauer, D.J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, 31, 437–448.

Raudenbush, S.W. and Bryk, A.S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd edn.). Thousand Oaks, CA: Sage.

Raudenbush, S.W., Bryk, A.S., Cheong, Y.F., Congdon, R. and du Toit, M. (2004). *HLM 6: Hierarchical linear and nonlinear modeling*. Lincolnwood, IL: Scientific Software International.

Ryan, A.M., Boyce, A.S., Ghuman, S., Jundt, D. and Schmidt, G. (2009). Going global: Cultural values and perceptions of selection procedures. *Applied Psychology: An International Review*, 58, 509–728.

Ryan, A.M. and Huth, M. (2008). Not much more than platitudes? A critical look at the utility of applicant reactions research. *Human Resource Management Review*, 18, 119–132.

Ryan, A.M., McFarland, L., Baron, H. and Page, R. (1999). An international look at selection practices: Nation and culture as explanations for variability in practice. *Personnel Psychology*, 52, 359–391.

Ryan, A.M. and 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.

Scherbaum, C.A. and Ferreter, J.M. (2009). Estimating statistical power and required sample sizes for organizational research using multilevel modeling. *Organizational Research Methods*, 12, 347–367.

Shane, S. (1993). Cultural influences on national rates of innovation. *Journal of Business Venturing*, 8, 59–73.

Steiner, D.D. and Gilliland, S.W. (1996). Fairness reactions to personnel selection techniques in France and the United States. *Journal of Applied Psychology*, 81, 134–141.

Steiner, D.D. and Gilliland, S.W. (2001). Procedural Justice in personnel selection: International and cross-cultural perspectives. *International Journal of Selection and Assessment*, 9, 124–137.

Sully de Luque, M. and Javidan, M. (2004). Uncertainty avoidance. In House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W. and Gupta, V. (Eds.), *Culture, leadership, and organizations: The GLOBE study of 62 societies* (pp. 602–653). Thousand Oaks, CA: Sage.

Tate, R. (2004). Interpreting hierarchical linear and hierarchical generalized linear models with slopes as outcomes. *The Journal of Experimental Education*, 73, 71–95.

Truxillo, D.M., Steiner, D.D. and Gilliland, S.W. (2004). The importance of organizational justice in personnel selection: Defining when selection fairness really matters. *International Journal of Selection and Assessment*, 12, 39–53.

Yeung, I.Y.M. and Tung, R.L. (1996). Achieving business success in Confucian societies: The importance of guanxi (connections). *Organizational Dynamics*, 25, 54–65.

Appendix A

Table A1. Country-level descriptive statistics and correlations between fairness perceptions and outcomes

Country	n	Structural perceptions		rJC	rOA	Information sharing perceptions		rJC	rOA
		M	SD			M	SD		
United States	347	4.13 (2.94)	.73 (1.19)	.17**	.39**	3.77 (2.88)	.83 (1.09)	.11*	.31**
India	314	4.07 (3.61)	.72 (1.01)	.37**	.43**	3.37 (3.18)	.97 (1.05)	.31**	.45**
Australia	277	4.05 (3.17)	.75 (1.20)	.33**	.49**	3.68 (3.09)	.84 (1.06)	.21**	.38**
Brazil	245	3.87 (3.64)	.79 (0.84)	.16*	.25**	3.88 (3.68)	.77 (0.82)	.11	.40**
Canada	239	3.99 (3.34)	.73 (1.05)	.16*	.41**	3.60 (3.17)	.88 (1.02)	.05	.43**
China	142	4.05 (3.59)	.55 (0.80)	.33**	.19*	3.71 (3.43)	.72 (0.84)	.30**	.08
Germany	128	3.98 (3.21)	.67 (1.07)	.17	.41**	3.63 (3.22)	.77 (0.92)	.13	.16
Ireland	102	4.10 (3.40)	.67 (1.09)	.19	.40**	3.53 (3.22)	.84 (1.03)	.20*	.27**
Spain	101	3.85 (3.39)	.64 (0.91)	-.06	.36**	3.82 (3.49)	.64 (0.84)	.02	.34**
The Netherlands	100	3.91 (3.15)	.63 (1.12)	.05	.18	3.54 (2.98)	.71 (0.95)	.02	.13
United Kingdom	95	4.17 (3.10)	.77 (1.25)	.38**	.52**	3.54 (2.95)	1.02 (1.07)	.25*	.40**
Philippines	46	4.10 (3.53)	.48 (0.93)	.17	.45**	3.80 (3.53)	.77 (0.86)	.16	.19
Hungary	43	3.76 (3.49)	.74 (0.91)	-.28	.49**	3.49 (3.37)	.95 (0.97)	.00	.31*
Argentina	32	3.80 (3.41)	.61 (0.91)	.31	.11	3.89 (3.56)	.66 (0.85)	.16	.38*
Poland	31	3.89 (3.30)	.99 (0.92)	.61**	.34	3.95 (3.46)	.89 (0.80)	.26	.27
Costa Rica	26	3.79 (3.15)	.96 (1.13)	.12	.60**	3.63 (3.47)	1.09 (1.00)	.00	.37
Singapore	25	3.98 (3.26)	.44 (0.94)	-.30	.15	3.30 (3.07)	.79 (0.88)	.14	.28
Hong Kong	23	3.69 (3.33)	.84 (0.92)	-.07	.66**	3.43 (3.04)	.82 (0.95)	-.17	.45*
Malaysia	22	4.00 (3.46)	.35 (0.87)	.00	.31	3.45 (3.32)	.77 (0.88)	.06	.32
New Zealand	22	4.11 (3.07)	.77 (1.21)	.36	.46*	3.89 (3.13)	.65 (1.04)	.19	.11
Indonesia	19	3.84 (3.53)	.76 (0.70)	.52*	.36	4.08 (3.54)	.48 (0.77)	.23	.36
Taiwan	15	3.80 (3.38)	.77 (0.78)	.20	.15	3.47 (3.24)	.85 (0.84)	.18	.23

Note: PO = performance orientation; UA = uncertainty avoidance. Only countries with at least 15 responses are reported. Means and standard deviations in parentheses reflect values based on the total (unrestricted) sample for comparative purposes. * $p < .05$. ** $p < .01$.