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Applicant Reactions in Selection: Comprehensive meta-analysis into reaction generalization versus situational specificity

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This paper reports a comprehensive quantitative summary into applicant reactions to popular methods of employee selection. A detailed search of published and unpublished studies resulted in a final sample (*k*) of 38 independent samples covering 10 popular candidate assessment methods. Applicant reactions primary studies included samples from 17 countries internationally. Counter to previous suggestions for the situational specificity of applicant reactions, findings showed considerable similarity supporting the reaction generalizability hypothesis. Reaction favorability was structurally similar across countries and revealed a three-tier clustering of overall favorability perceptions – *most preferred* (work samples, interviews), *favorably evaluated* (resumes, cognitive tests, references, biodata, personality inventories), and *least preferred* (honesty tests, personal contacts, graphology). Some differences in applicant reactions to dimension-specific perceptions were found, however. Further analyses revealed strong positive correlations between favorability ratings and their validity and international usage. Implications for future research and ramifications for practice are considered in conclusion.

1. Introduction

There has been a notable growth in interest and empirical research into applicant reactions to selection procedures among I/O psychologists over recent years. As the field of applicant reactions research has become more extensive and mature, primary studies into key aspects of applicant perceptions have been published across an increasing number of countries internationally, and several narrative reviews have been published that summarize key findings and present directions for future research (chronologically, these include, Anderson, Born, & Cunningham-Snell, 2001; Chan & Schmitt, 2004; Hausknecht, Day, & Thomas, 2004; Imus & Ryan, 2005; Ployhart & Ryan, 1997; Ryan & Ployhart, 2000). Applicant reactions are also an important consideration for organizations in their design of operational selection procedures as, for instance, such reactions can influence acceptance rates among chosen candidates and the organization's wider public image as a potential employer

(Anderson, in press; Bauer *et al.*, 2001; Hülsheger & Anderson, 2009; Ployhart & Ryan, 1998; Rynes & Connerly, 1993; Schmitt & Gilliland, 1992; Truxillo, Bauer, & Sanchez, 2001). Furthermore, applicant reactions across countries and cultures are important especially for organizations operating multinational selection procedures or selecting for expatriate assignment roles where applicants from different countries are routinely being assessed (Rynes & Connerly, 1993; Steiner & Gilliland, 1996). Despite these issues and advances, one troublesome question has doggedly remained unanswered in the applicant reactions literature: the extent to which applicant reactions to popular selection methods are situationally specific (i.e., locally constrained and influenced by proximal contingencies) or whether reaction generalizability can be ascertained (i.e., that reactions are sufficiently similar as to generalize across methods, organizations, or even countries). It is this centrally important, but to date under-researched, question that concerns the present paper.

1.1. Applicant reactions theory and research: Imperatives and developments

Applicant reactions research has developed over recent years as a result of two inter-dependent strands of theory and empirical questions of interest among I/O psychologists. First, *justice theory* originally propounded by Greenberg (1990) and applied to employee selection procedures by Gilliland (1993), and in modified form by Schuler (1993) in his 'social validity' perspective, has driven a whole range of empirical questions into applicant reactions to procedural (process) justice and distributive (outcome) justice in organizational selection settings. Justice theory has provided valuable grounding concepts and constructs from which many primary studies have derived inspiration and testable hypotheses, and it is clear that applicants' perceptions of procedural and distributive justice has important implications. For instance, violations of procedural justice expectations, let alone distributive justice outcomes, have been argued to be likely antecedents of potential litigation by disaffected applicants (Ployhart & Ryan, 1997; Ryan & Ployhart, 2000). If justice theory perspectives can be argued to have driven research in the United States most directly, then the concept of social validity can be asserted to have done more so in European countries. Schuler (1993) defines social validity as applicant perceptions of the selection process as comprising four distinct aspects: (1) informativeness – the degree of information provided and perceived as useful, (2) participation – the extent to which applicants feel they have chances to participate fully and present themselves adequately, (3) transparency – how transparent the methods utilized are, and, (4) feedback – the availability and extent of feedback provided by the organization to applicants whether successful or unsuccessful. Clearly, the justice framework perspective and Schuler's approach of social validity share common conceptual ground, both are centrally concerned with applicants' perceptions of fairness of treatment, and both have had the seminal effect upon the design of subsequent primary studies into applicant reactions of placing fairness perceptions uppermost on the research agenda. Justice and fairness of treatment approaches are certainly justifiable in that applicant reactions have been found to influence key outcomes across several studies. This is evidenced in a comprehensive meta-analysis showing that perceptions of fairness of treatment influence a number of important outcomes, including willingness to accept any subsequent offer of employment, perceptions of the organization as an employer, willingness to recommend the employer to other applicants, and applicant self-efficacy (Hausknecht *et al.*, 2004).

Second, there has been a shift among selection researchers internationally toward applicant perspective research in comparison with the more traditional focus upon recruiter decision making and organizational perspectives in the selection literature (e.g., Hausknecht

et al., 2004; Truxillo, Bodner, Bertolino, Bauer, & Yonce, 2009). Such a shift of focus is notable because this has involved researchers from several countries across different continents and appears to have occurred almost simultaneously across different countries (Anderson, 2004; Hülsheger & Anderson, 2009). This growing recognition of the importance of applicant perspective research seems to have been fueled by a genuine desire to examine selection procedures from the applicant's viewpoint, in contrast to the mass of research over many decades that can be argued to have concentrated exclusively upon selection processes and decision making from the recruiter/organizational perspective (Anderson *et al.*, 2001; Ployhart, Ryan, & Bennett, 1999; Schmitt & Chan, 1999; Steiner & Gilliland, 2001). Selection psychologists had appeared to have concentrated their research attentions too much upon the recruiter's perspective, and the growth in applicant perspective research over recent years is thus a laudable counterbalance (Chan & Schmitt, 2004). This switch of focus has also contributed significantly to a more comprehensive and multi-perspective understanding of the processes, effects, and outcomes of selection procedures.

Studies into applicant reactions to popular selection predictors have now been published covering applicant samples drawn from numerous countries: the United States (Nikolaou & Judge, 2007; Phillips & Gully, 2002; Steiner & Gilliland, 1996); France (Steiner & Gilliland, 1996); Singapore (Phillips & Gully, 2002); Spain and Portugal (Moscoso & Salgado, 2004); South Africa (De Jong & Visser, 1999); Germany (Marcus, 1999, 2003); Belgium (Stinglhamber, Vandenbergh, & Brancart, 1999); Greece (Nikolaou & Judge, 2007); Italy (Bertolino & Steiner, 2007); the Netherlands (Anderson & Witvliet, 2008); Turkey (Bilgiç & Acarlar, 2010); Romania (Ispas, Ilie, Iliescu, Johnson, & Harris, 2010); Iceland (Jónsdóttir & Hafsteinson, 2008), among others. Several, but not all, of these studies have used Steiner and Gilliland's (1996) questionnaire into applicant reactions, where appropriate with translation into the host country language. This questionnaire evaluates eight main dimensions of applicant reactions: Favorability (overall perceptions of method process favorability); Scientific Evidence (the extent the method is based upon scientific research); Employers' Rights to use (justifiability of usage based upon propriety of questions); Opportunity to Perform (the degree to which the method differentiates applicant qualities); Interpersonal Warmth (method personalness and warmth of treatment); Face Validity (method justifiability based upon the job being recruited for); Widely Used (method appropriateness based upon widespread usage); and, Respectful of Privacy (lack of invasion of personal privacy). The questionnaire evaluates reactions on these eight dimensions against brief descriptions of 10 popular selection methods.

With some variations, the trend across past studies appears to be that applicants perceive some methods most favorably (e.g., interviews, work samples, and resumes), some quite favorably (e.g., cognitive tests, references, and personality tests), and some as being distinctly unfavorable (e.g., personal contacts and graphology). Several other studies not using the Steiner and Gilliland measure have also appeared in publication (e.g., Bauer, Maertz, Dolen, & Campion, 1998; Chan, Schmitt, Jennings, Clause, & Delbridge, 1998; Tran & Blackman, 2006), although some of these studies have used selected items from the original questionnaire.

1.2. Reaction generalization versus situational specificity

The issue of whether applicant reactions are determined by local, proximal factors that differ substantially across jobs, organizations or countries – what might be termed ‘*situational specificity*’ – or whether reactions are more stable, determined largely by underlying factors, and thus are generalizable across different contexts – what we term ‘*reaction generalizability*’ – is an important one. This issue, although having been raised at least in principle in the literature, has received little empirical attention or research. Indeed, several authors have suggested that applicant reactions are likely to vary by country (e.g., Marcus, 2003; Moscoso & Salgado, 2004; Phillips & Gully, 2002), and that such variations are likely to be a function of various cross-national differences in culture, HRM practices, exposure of applicants to different selection methods, and legislative demands and constraints. Thus, it is possible to extrapolate from these earlier findings and propositions to put forward the ‘case’ for reaction generalizability on the one hand, and the ‘case’ for situational specificity on the other.

The case for reaction generalizability centers upon the similarity of findings reported by previous primary studies and other arguments that can be gleaned from the validity generalization debate to account for why no structural differences by country are likely to be found. As previously mentioned, past studies have tended to report notably similar applicant reactions to the most popular selection methods. Perhaps the most compelling data available so far has been presented by Anderson and Witvliet (2008). In addition to examining applicant reactions in a Dutch sample, these authors obtained previously published datasets covering five other countries (the United States, France, Spain, Portugal, and Singapore) from three studies (Moscoso & Salgado, 2004; Phillips & Gully, 2002; Steiner & Gilliland, 1996). They reported a mean cross-national process favorability correlation of $r = .87$ ($p < .01$) and a mean cross-national procedural justice correlation (i.e., scientific evidence, employer’s rights, opportunity to perform, interpersonal warmth, face validity, widely used, and respectful of

privacy, combined) of $r = .68$ ($p < .01$). The authors concluded: ‘Similarities in applicant reactions cross-nationally were far more prevalent than differences, even between countries having notably varied cultures, socio-economic conditions, and usages of selection methods . . .’ (Anderson & Witvliet, 2008, p. 9). It should be noted, however, that this study only included samples from four published studies covering in total six countries, and further that this analysis was restricted to simple unweighted, cross-national correlations. A direct test of reaction generalizability would, however, require a meta-analytic integration of mean applicant reactions and the corresponding artifact corrections.

Nonetheless, other arguments can be marshaled that undoubtedly support the reaction generalization hypothesis, even if this line of argument may appear *prima facie* to be counter-intuitive. Within-sample variation in reactions to different selection methods is likely to be far higher than between-sample variation, it can be argued. That is, in any single, within-country sample of applicants reporting their reactions to past experiences on various selection methods, it is likely that individual differences in experience and exposure to methods will be relatively wide. Such differences that are found are likely to be attributable to these differences, rather than to cross-national differences therefore. Other arguments that have been advanced in the validity generalization versus situational specificity debate in GMA testing are also relevant. Here, advocates of generalizability have argued that variations in validity coefficients have been the result of small sample sizes and artifactual measurement errors, and that once these have been appropriately corrected for that operational validity coefficients generalize across contexts (Hunter & Schmidt, 2004). Accordingly, it could theoretically be argued that variations in applicant reactions to selection methods do not represent true variations but are to a large extent caused by sampling error.

Now turning to the case for situational specificity, arguments around international differences and exposure of applicants to different selection methods (Salgado, Anderson, Moscoso, Bertua, & De Fruyt, 2003a, 2003b) can be cited to support the position that applicant reactions vary substantially across different countries. The central strand of argument for this position is derived from surveys of the popularity of different selection methods in different countries in the United States and Europe. Over the years these have revealed relatively wide variations in the usage of different selection methods by recruiting organizations and that different methods are popular in different countries (Ryan, McFarland, Baron, & Page, 1999; Shackleton & Newell, 1994). For instance, in the Ryan *et al.* (1999) international survey cognitive ability tests were found to be more widely used in Spain, Portugal, the Netherlands, and Belgium than in the United States, Italy, and Germany. Further, Schuler, Hell, Trappmann, Schaar, and Boramir (2007) reported that only

about 20% of German organizations use cognitive ability tests for personnel selection. Other differences were reported by Shackleton and Newell (1994) in their survey of method use across different European countries. Graphology was found to be used almost exclusively in France, and in the very few cases elsewhere that these organizations were mostly subsidiaries of French or Belgian organizations (Schuler, Frier, & Kauffmann, 1993; Shackleton & Newell, 1994). These survey findings, which are extensive and their results replicated across several surveys, have been cited by other authors to suggest that applicant exposure to different selection methods will therefore differ substantially across countries (e.g., Marcus, 2003). Such exposure differences are then held to be antecedents of applicant reaction differences per country, that is, situational specificity. The argument that mere differences in exposure to selection methods will affect reactions is quite persuasive and intuitively appealing. Different levels of experience to different methods across countries are likely to influence candidate reactions, perhaps with greater experience resulting over time in greater polarization of attitude toward most preferred and least preferred methods.

1.3. Previously published meta-analyses into applicant reactions

Two previous meta-analyses into specific aspects of applicant reactions have been published. Hausknecht *et al.* (2004) examined relations between applicant perceptions, including fairness perceptions, and a number of outcome variables including perceptions of the organization, intention to accept any job offer, and willingness to recommend the employer to others. Applicant perceptions of face and predictive validity were found to be robust predictors of perceptions of procedural justice, distributive justice, and attitudes toward different selection methods. Building upon Gilliland (1993) and Ryan and Ployhart (2000), the authors proposed a general model of the antecedents to, processes within, and outcomes of, applicant reactions. Their results supported key propositions that applicant reactions influenced organizational perceptions, job offer acceptance intentions, and willingness to recommend the organization to others. With regard to the favorability reactions of applicants, Hausknecht and colleagues presented findings based upon cell sizes (k) of 5 ($N = 736$, for resumes) to 10 samples (N varied between 1,493 and 1,530, for interviews, work samples, cognitive ability tests, and personality inventories). Most favorable reactions were found for interviews, work samples, and resumes, and the least favorable for honesty tests and graphology. Note that these reactions only related to overall favorability perceptions, and so the question of reactions on other dimensions identified by Steiner and Gilliland (1996) remained unaddressed. Further, no information was

provided on the percentage of variance accounted for by artifacts and on credibility intervals, so that it is difficult to ascertain whether reaction generalizability can be concluded or not.

Most recently, Truxillo *et al.* (2009) conducted a comprehensive meta-analysis into the effects of providing applicants with explanations upon subsequent fairness perceptions and other reactions. Based upon 26 individual samples ($N = 3481$) the authors found that explanation provision affected not only applicant fairness perceptions, but also perceptions of the hiring organization, test-taking motivation, and intriguingly, performance on cognitive ability tests. These findings are interesting in that they suggest that applicant reactions based upon explanations can be quite extensive and can exert effects not just upon the image of the organization as a recruiter, but can actually impinge upon subsequent performance by applicants sitting tests of GMA as part of an organization's assessment procedures.

These two published meta-analyses also indicate that in principle the field of applicant reactions research is now sufficiently mature to permit the computation of such quantitative reviews. However, neither of these meta-analyses examined the issue of applicant reactions to popular selection methods on different dimensions nor that of international differences versus similarity in applicant reactions across countries. The Truxillo and colleagues meta-analysis focused solely upon the effects of explanations upon applicant reactions. As this is an emerging area, several studies have also been published since Hausknecht and colleagues and so it is timely for an update to be undertaken. Both of these meta-analyses included few unpublished studies or primary studies conducted outside of the United States as these were not readily available. Finally, neither of these published meta-analytic investigations examined relations between applicant reactions and the usage of predictor methods or their criterion validity, both of which we were able to do in the present study.

The present paper addresses these shortcomings in three important ways. First, we conduct a comprehensive meta-analysis of published and unpublished studies relevant to all aspects of applicant reactions to selection methods covering studies internationally across several countries. Second, we will examine effects of reactions upon multiple dimensions, not just upon overall perceived favorability. In order to do so, we utilize Steiner and Gilliland (1996) dimensional typology, and thus examine applicant reactions across eight key dimensions to 10 popular assessment methods noted earlier. Third, we examine correlations between applicant perceptions and the perceived validity and usage of these methods. This allows an examination of applicant perceptions of the validity and determining factors from their perspective of the use of different selection methods by organizations internationally.

2. Method

2.1. Literature search and coding of studies

An extensive literature search was undertaken using computer-based and manual approaches. First, the databases PsycINFO and SSCI were searched to identify studies into applicant reactions. Several keywords were used for the computer-based literature search, for example 'applicant perceptions,' 'applicant reactions,' 'justice perceptions,' and 'selection methods.' Second, the reference sections of several narrative reviews and past meta-analyses (e.g., Anderson *et al.*, 2001; Chan & Schmitt, 2004; Hausknecht *et al.*, 2004; Imus & Ryan, 2005; Ryan & Ployhart, 2000; Truxillo *et al.*, 2009) were searched to identify articles not located in our computer-based search. This resulted in a final database comprising of 38 independent samples reported in 26 papers based upon an overall *N* of 8974 individuals was established for analysis. Of these, 21 independent samples reported reactions on the Steiner and Gilliland (1996) questionnaire. The final database included one or more independent samples from 17 countries: Belgium, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Morocco, the Netherlands, Portugal, Romania, Singapore, South Africa, Spain, Turkey, and the United States. A trained coder recorded the means of every combination between the 10 selection methods and the 8 applicant reactions dimensions per study and recorded information on sample size and the origin of the study (country). The authors subsequently verified all of these codings to control for potential recording errors.

2.2. Procedures for meta-analysis and other analyses

In conducting the meta-analysis we followed the principles and procedures described by Hunter and Schmidt (2004) as a type of 'bare bones' psychometric meta-analysis in order to calculate mean reactions, observed variances, sampling error variances, and the variance corrected for by sampling error variance. As the aim of this meta-analysis was to establish estimates of applicant reactions to selection methods, we computed sample-size weighted means on the eight applicant reaction dimensions for 10 different selection methods, respectively. This involved the computation of 80 individual meta-analyses. Contrary to other meta-analyses integrating measures of effect sizes such as correlations or *d*-statistics, this meta-analysis thus concerned the integration of means. Consequently, corrections for predictor and criterion reliability or range restriction were not applicable. In accordance with Steiner and Gilliland's (1996) original measure, most studies assessed applicant reactions on a 7-point scale ranging from 1 = *totally disagree* to 7 = *totally agree* and values were scored such

that high ratings reflected more favorable applicant reactions. When original studies assessed applicant reactions on a 5-point scale (e.g., Bauer *et al.*, 1998), these were simply converted to 7-point scales before conducting the meta-analyses.

In addition to sample-size weighted means, we also calculated the observed variance, the sampling error variance, variance corrected for sampling error, the percentage of variance accounted for by artefacts, and 95% credibility intervals. These statistics combined indicate the generalizability of mean applicant reactions across different situations and settings (cf. Hunter & Schmidt, 2004).

Finally, additional analyses were computed to examine correlations between applicant reactions on the one hand, and the operational validity of methods as reported by Schmidt and Hunter (1998) and popularity of use as reported by Ryan *et al.* (1999), on the other. In order to calculate the correlation between dimensions of applicant reactions and the percentage of use, we took the average percentage of use across countries as reported in Ryan *et al.* (1999). These correlations thus indicate possible interrelations between applicant favorability perceptions, operational validity, and frequency of use of methods by organizations, as an intriguing set of follow-up research issues to our main meta-analysis. The results from these secondary analyses are reported after the main meta-analysis findings.

3. Results

3.1. Meta-analytic findings

3.1.1. Overall favorability ratings

Table 1 reports the main meta-analytic findings into overall favorability across the 10 selection methods. Examination of the mean overall favorability ratings in combination with their respective credibility intervals indicates that preference reactions vary by selection method. There are basically three broad groups of selection methods: most preferred, favorably evaluated, and least preferred. The most preferred selection methods are work samples ($M = 5.38$, $CI = 6.47-4.29$) and interviews ($M = 5.22$, $CI = 5.43-5.00$). Also resumes ($M = 4.97$, $CI = 4.97$), cognitive tests ($M = 4.59$, $CI = 5.30-3.89$), references ($M = 4.36$, $CI = 4.76-3.96$), biodata ($M = 4.28$, $CI = 4.83-3.74$), and personality inventories ($M = 4.08$, $CI = 4.61-3.54$) are positively evaluated, but somewhat less so than for work samples and interviews. The least preferred selection methods are honesty tests ($M = 3.69$, $CI = 4.41-2.96$), personal contacts ($M = 2.59$, $CI = 3.07-2.10$), and graphology ($M = 2.33$, $CI = 2.70-1.96$).

Concerning the question of reaction generalizability, inspection of the credibility intervals is crucial. Credibility intervals for overall favorability ratings are quite tight

Table 1. Meta-analysis results for applicant reactions to personnel selection methods – overall favorability

Procedure	K	N	Mean	Obs SD	SEV	%VAR ACC	True SD	95% CI
Biodata	19	2,380	4.28	.5349	.2084	72.83	.2788	4.83–3.74
Cognitive tests	26	3,683	4.59	.6324	.2710	67.75	.3592	5.30–3.89
Contacts	22	2,738	2.59	.5345	.2248	78.67	.2469	3.07–2.10
Graphology	21	2,618	2.33	.4836	.1985	84.88	.1880	2.70–1.96
Honesty tests	19	2,565	3.69	.5976	.2242	62.79	.3646	4.41–2.96
Interviews	25	3,338	5.22	.4591	.1987	94.26	.1100	5.43–5.00
Personality tests	25	3,201	4.08	.5718	.2527	77.29	.2724	4.61–3.54
References	21	2,665	4.36	.4928	.2005	82.56	.2058	4.76–3.96
Resumes	19	2,565	4.97	.3467	.1301	100.00	.0000	4.97
Work samples	23	3,388	5.38	.7870	.3110	50.21	.5553	6.47–4.29
					Mean	77.42		

Note. *k* = number of studies; *N* = total sample size; Mean = sample size weighted mean; Obs SD = sample size weighted observed standard deviation; SEV = sampling error variance; %VAR ACC = variance accounted for by sampling error; True SD = true standard deviation; CI = credibility interval. All ratings were transformed onto a 7-point scale before aggregation, higher values indicate more favorable reactions.

across the 10 selection methods. The lower bound of the 95% CI indicates that only 2.5% of the means of individual studies fall beneath this value. It thus provides the minimum generalizable value across the dataset and across countries. Further support for reaction generalizability of overall favorability ratings is given by the percentage of variance accounted for by sampling error. Between 63% (honesty tests) and 100% (resumes) of variance was attributable to sampling error. Only for work samples the percentage was comparably lower (50%). Overall, about 77% of variance was attributable to artifacts across the 10 different selection methods. This percentage is quite high, given that according to Hunter and Schmidt's (2004) 75% rule of thumb a search for moderators is only warranted if less than 75% of variance can be explained by artifacts. It can thus be concluded that overall favorability ratings generalize across samples and settings for biodata, personal contacts, graphology, honesty tests, interviews, personality tests, references, and resumes. In the case of honesty tests, cognitive tests, and work samples, some variance still remains after correcting for sampling error, which could be explained by moderators such as cultural differences.

3.2. Mean applicant reactions to sub-dimensions

Turning to each of the sub-dimensions of applicant reactions reported in Table 2, results demonstrate some differing patterns of reaction by method. Considering first scientific validity, cognitive tests are perceived as being most scientifically valid ($M = 4.70$, $CI = 5.99-3.42$) followed by, work samples ($M = 4.43$, $CI = 5.92-2.94$), and personality inventories ($M = 4.20$, $CI = 5.64-2.77$). In turn, middle range reactions are found for resumes, interviews, biodata, and honesty tests. In descending order, least positive reactions for perceived scientific validity are demonstrated for graphology ($M = 2.72$,

$CI = 3.92-1.52$), references ($M = 3.15$, $CI = 4.49-1.81$), and lastly, personal contacts ($M = 2.11$, $CI = 2.75-1.47$).

Overviewing the findings for the sub-dimensions reported in Table 2, several reveal a basically similar pattern of results as for overall favorability with some variations around whether interviews or work samples are most positively regarded. Results on reactions over employer's rights to use, opportunity to perform, and face validity, all display this similar pattern with work samples or interviews being ranked most positively, followed by resumes, cognitive ability tests, biodata, references, personality inventories, honesty tests, contacts, and graphology.

Turning to interpersonal warmth, a rather different preference pattern emerges. Here, again interviews ($M = 5.43$, $CI = 6.61-4.26$) and work samples ($M = 4.60$, $CI = 5.81-3.40$) are most positively regarded, whereas references and personal contacts are the next most positively perceived ($M = 4.32$, $CI = 5.31-3.33$; $M = 4.27$, $CI = 5.06-3.48$, respectively). Least positively regarded with respect to interpersonal warmth are cognitive tests ($M = 3.52$, $CI = 4.90-2.14$) and graphology ($M = 2.91$, $CI = 4.17-1.64$).

On the dimension of widely used, applicant perceptions again follow the general pattern of preference reactions identified above, but with the exception being that work samples are perceived as being less used than either interviews, resumes, biodata, and references. Interviews are seen as most widely used ($M = 5.41$, $CI = 6.71-4.13$) followed by resumes ($M = 5.33$, $CI = 6.72-3.95$) and then biodata ($M = 4.56$, $CI = 5.71-3.41$). Methods perceived to be least used by organizations are, in descending order, personal contacts ($M = 3.15$, $CI = 4.34-1.97$), honesty tests ($M = 3.09$, $CI = 3.70-2.47$), and lastly, graphology ($M = 2.08$, $CI = 2.58-1.58$).

Finally, reactions on the dimension of respectful of privacy reveal some interesting differences. Here, applicants rated cognitive tests as most favorable ($M = 5.47$, $CI = 6.67-4.28$) followed by work samples ($M = 5.40$,

Table 2. Meta-analysis results for applicant reactions to personnel selection methods – justice dimensions

Procedure	K	N	Mean	Obs SD	SEV	%VAR ACC	True SD	95% CI
<i>Scientific evidence</i>								
Biodata	12	1,595	4.03	.6458	.1941	46.54	.4722	4.96–0.11
Cognitive tests	13	1,831	4.70	.8230	.2500	36.93	.6536	5.99–3.42
Contacts	11	1,731	2.11	.4838	.1279	54.67	.3257	2.75–1.47
Graphology	12	1,549	2.72	.7849	.2394	38.86	.6137	3.92–1.52
Honesty tests ^a	9	1,379	3.27	.8850	.2384	30.44	.7381	4.71–1.82
Interviews	14	1,985	4.08	.8683	.2729	36.20	.6936	5.44–2.72
Personality tests	13	1,985	4.20	.8937	.2608	32.66	.7334	5.64–2.77
References	13	1,831	3.15	.8504	.2584	35.73	.6818	4.49–1.81
Resumes	11	1,731	4.08	.8961	.2370	29.51	.7523	5.55–2.60
Work samples	13	1,831	4.43	.9269	.2817	32.79	.7599	5.92–2.94
					Mean	39.43		
<i>Employer's right</i>								
Biodata	10	1,495	5.04	.6709	.1736	38.56	.5258	6.07–4.01
Cognitive tests	11	1,731	4.90	.6677	.1766	39.61	.5189	5.92–3.88
Contacts	11	1,731	3.37	.7474	.1977	35.38	.6008	4.55–2.19
Graphology	10	1,449	2.69	.7126	.1873	36.88	.5662	3.80–1.58
Honesty tests	11	1,731	4.23	.7218	.1909	36.64	.5746	5.35–3.10
Interviews	11	1,885	5.82	.5532	.1402	45.81	.4072	6.62–5.02
Personality tests	12	1,885	4.56	.5828	.1611	47.44	.4224	5.39–3.74
References	11	1,731	4.71	.5696	.1506	46.43	.4169	5.53–3.89
Resumes	11	1,731	5.66	.5979	.1581	44.23	.4465	6.53–4.78
Work samples	11	1,731	5.46	.7382	.1952	35.83	.5914	6.62–4.30
					Mean	40.67		
<i>Opportunity to perform</i>								
Biodata ^a	9	1,260	4.67	.3660	.0928	69.31	.2027	5.06–4.27
Cognitive tests	11	1,749	4.59	.7016	.1846	37.50	.5547	5.68–3.51
Contacts ^a	10	1,496	2.50	.5709	.1624	49.83	.4044	3.30–1.71
Graphology	10	1,449	2.43	.6563	.1725	40.04	.5083	3.42–1.43
Honesty tests	10	1,496	3.56	.6550	.1694	39.49	.5096	4.56–2.56
Interviews	11	1,731	5.40	.6722	.1778	39.34	.5235	6.43–4.38
Personality tests	13	1,883	4.59	.8500	.2547	35.26	.6839	5.93–3.25
References	11	1,731	4.26	.8556	.2263	30.91	.7118	5.65–2.87
Resumes	11	1,731	4.87	.6673	.1764	39.63	.5185	5.89–3.86
Work samples	11	1,731	5.42	.7196	.1903	36.75	.5722	6.54–4.30
					Mean	41.81		
<i>Interpersonal warmth</i>								
Biodata	10	1,495	4.04	.6821	.1765	37.93	.5374	5.10–2.99
Cognitive tests ^a	11	1,731	3.52	.8471	.2240	31.22	.7026	4.90–2.14
Contacts	11	1,731	4.27	.5580	.1476	47.39	.4048	5.06–3.48
Graphology	10	1,449	2.91	.7918	.2081	33.19	.6472	4.17–1.64
Honesty tests	11	1,731	3.71	.5233	.1384	50.54	.3681	4.43–2.99
Interviews	11	1,731	5.43	.7458	.1972	35.46	.5991	6.61–4.26
Personality tests	11	1,731	3.89	.6558	.1734	40.32	.5066	4.88–2.90
References	11	1,731	4.32	.6548	.1732	40.39	.5056	5.31–3.33
Resumes	10	1,606	3.97	.8387	.2093	29.76	.7029	5.35–2.60
Work samples	11	1,731	4.60	.7608	.2012	34.76	.6145	5.81–3.40
					Mean	38.10		
<i>Face validity</i>								
Biodata	10	1,495	4.69	.4929	.1275	52.49	.3397	5.36–4.03
Cognitive tests ^a	10	1,495	4.91	.5492	.1421	47.19	.3994	5.69–4.12
Contacts	11	1,731	2.71	.4825	.1276	54.81	.3244	3.35–2.08
Graphology	10	1,449	2.31	.6078	.1597	43.24	.4579	3.21–1.41
Honesty tests	11	1,731	3.68	.9298	.2457	28.47	.7856	5.22–2.14
Interviews	11	1,731	5.54	.5940	.1571	44.52	.4424	6.40–4.67
Personality tests	11	1,731	4.33	.8408	.2223	31.46	.6961	5.70–2.97
References	11	1,731	4.34	.7273	.1924	36.36	.5802	5.47–3.20
Resumes	11	1,731	5.25	.7062	.1868	37.45	.5586	6.35–4.16
Work samples	11	1,731	5.34	.8149	.2155	32.45	.6697	6.65–4.03
					Mean	40.84		
<i>Widely used</i>								
Biodata	10	1,495	4.56	.7305	.1890	35.42	.5871	5.71–3.41
Cognitive tests	11	1,731	4.22	.9357	.2475	28.26	.7925	5.77–2.67

Table 2. (Contd.)

Procedure	K	N	Mean	Obs SD	SEV	%VAR ACC	True SD	95% CI
Contacts	11	1,731	3.15	.7510	.1986	35.22	.6044	4.34–1.97
Graphology	10	1,449	2.08	.4181	.1099	62.85	.2548	2.58–1.58
Honesty tests ^a	10	1,496	3.09	.4878	.1388	58.32	.3150	3.70–2.47
Interviews	11	1,731	5.41	.8027	.2123	32.95	.6573	6.71–4.13
Personality tests	11	1,731	4.11	.8966	.2371	29.50	.7528	5.59–2.63
References	11	1,731	4.37	.8231	.2118	32.13	.6781	5.70–3.04
Resumes	11	1,731	5.33	.8510	.2251	31.08	.7065	6.72–3.95
Work samples	10	1,496	4.23	.6586	.1704	39.27	.5133	5.24–3.23
					Mean	38.50		
<i>Respectful of privacy</i>								
Biodata	10	1,495	4.42	.5256	.1360	49.22	.3746	5.16–3.69
Cognitive tests ^b	9	1,502	5.47	.7384	.1715	31.46	.6112	6.67–4.28
Contacts	11	1,731	4.55	.8049	.2129	32.86	.6596	5.84–3.26
Graphology	9	1,260	4.32	.4452	.1129	56.97	.2920	4.89–3.75
Honesty tests	11	1,731	4.17	.6883	.1820	38.43	.5401	5.22–3.11
Interviews	11	1,731	5.02	.7334	.1940	36.06	.5864	6.17–3.87
Personality tests	13	1,883	4.18	.5128	.1537	58.43	.3306	4.83–3.53
References	11	1,731	4.47	.4436	.1173	59.62	.2818	5.03–3.92
Resumes ^a	10	1,606	5.34	.7330	.1830	34.05	.5952	6.50–4.17
Work samples ^a	10	1,606	5.40	.8470	.2114	29.47	.7112	6.80–4.01
					Mean	42.63		

Note. *k* = number of studies; *N* = total sample size; Mean = sample size weighted mean; Obs *SD* = sample size weighted observed standard deviation; SEV = sampling error variance; %VAR ACC = variance accounted for by sampling error; True *SD* = true standard deviation; CI = credibility interval. All ratings were transformed onto a 7-point scale before aggregation, higher values indicate more favorable reactions. ^aExcluded 1 outlier. ^bExcluded 2 outliers.

CI = 6.80–4.01) and by resumes ($M = 5.34$, CI = 6.50–4.17). The least positively regarded method was honesty tests ($M = 4.17$, CI = 5.22–3.11), on this dimension even lower than the finding for graphology ($M = 4.32$, CI = 4.89–3.75).

Concerning the question of reaction generalizability of these sub-dimensions, again, inspection of the width and the lower bound of credibility intervals is necessary. Across the different justice dimensions, the average percentage explained by sampling error varies between 38% (interpersonal warmth) and 43% (respectful of privacy). This indicates that, in general, reaction generalizability exists. However, this established it is important to note that the variance accounted for by sampling error is lower for some justice dimensions (e.g., interpersonal warmth) and some selection methods (e.g., work samples) than for others (e.g., respectful of privacy). Consequently, these findings suggest that in these cases moderators could be present and could explain the remaining variability.

3.3. Correlational findings

The dataset collated for this meta-analysis also permitted us to undertake further analyses to explore whether applicant reactions were in some way related to two other sets of independently published findings. First, we correlated reactions data by dimension against Schmidt and Hunter's (1998) meta-analysis reporting operational

validity coefficients for various selection methods. Second, we computed correlations between our overall reactions dataset and the survey findings reported by Ryan *et al.* (1999) into the international use of different selection methods by recruiting organizations. Table 3 reports the findings of both sets of correlations. This table reveals high and significant correlations between applicants' ratings on scientific evidence ($r = .700$, $p < .05$), overall favorability ($r = .655$, $p < .05$), opportunity to perform ($r = .642$, $p < .05$), and face validity ($r = .629$, $p < .05$) on the one hand and meta-analytically derived corrected validity coefficients for major selection methods. Other correlations were, however, low and nonsignificant. Namely, correlations between applicant ratings on percentage use ($r = .090$, *ns*), and widely used ($r = .344$, *ns*) and operational validities were low and nonsignificant. Correlations between applicant reactions and the international usage of selection methods by recruiting organizations mirror the results on validity: Strong relationships emerged between the international use of selection methods and the perception of face validity ($r = .685$, $p < .05$), employer's right ($r = .679$, $p < .05$), opportunity to perform ($r = .662$, $p < .05$), and overall favorability ($r = .653$, $p < .05$). The strongest relationship, however, emerged between applicants' perception of the pervasiveness of selection methods (widely used) and the actual international usage as reported by organizational representatives ($r = .783$, $p < .05$), suggesting that applicants may possess relatively accurate notions over the

Table 3. Correlations between justice dimensions, operational validity, and organizational use

Variable	Validity	Use
Percentage use	.090	—
Favorability	.655*	.653*
Scientific evidence	.700*	.489
Employer's right	.571	.679*
Opportunity to perform	.642*	.662*
Interpersonal warmth	.439	.553
Face validity	.629*	.685*
Widely used	.344	.783*
Respectful of privacy	.433	.420

Note. Correlations with validity are correlations between applicant reactions in the present dataset and Schmidt & Hunter's (1998) reported levels of operational validity. Correlations with use represent correlations with Ryan *et al.*'s (1999) survey into international usage of predictors by recruiting organizations. * $p < .05$. $N = 10$.

popularity and usage of methods by recruiter organizations. These findings combined are interesting in that they reveal almost identical patterns of correlations between applicant perceptions and operational validity, and between applicant perceptions and international usage by employers. Given that both were evaluated in separate studies (a meta-analysis and a large-scale international survey), these findings are important in that they reveal patterns of relations between these variables that have previously not been explored. An interesting final finding reported in Table 3 is that there is no correlation between the operational validity of the various methods and the use of such methods in companies across the countries included.

4. Discussion

The principal aim of the present paper was to conduct a comprehensive, multidimensional meta-analysis into international differences and similarities in applicant reactions to popular methods of employee selection. In addition to this, we explored relationships between applicant reactions and previously published, independent studies into selection method operational validity and method popularity as indicated by one major international survey (Schmidt & Hunter, 1998; Ryan *et al.*, 1999). A critical further aim of this effort was to establish whether reaction generalizability was evident from this meta-analytic dataset as an important grounding for psychologists and personnel practitioners to understand likely applicant reactions across different countries and cultures to the use and operation of popular predictor methods.

Four main findings emerged from this study:

- (1) Overall favorability reactions displayed a similar pattern of preference ranking to predictor methods as found in other primary studies and quantitative summaries;

- (2) Applicant reactions to the dimensions of employer's rights to use, opportunity to perform, and face validity also displayed this overall pattern of preference;
- (3) Reaction generalizability across applicant reactions was found both on overall favorability and all seven sub-dimensions;
- (4) Applicant reactions were found to correlate with independent study findings into operational validity and the popularity of use of different selection methods.

4.1. Reaction generalization versus situational specificity

Arguably the most important finding from the present meta-analytic integration is that reaction generalizability was found across all dimensions of applicant perceptions included in previous primary studies and thus coded into the present analysis. That is, our findings provide initial support for the position of reaction generalizability as opposed to arguments put forward for the situational specificity of applicant reactions internationally. Nevertheless, our findings certainly warrant replication and extension as this is the first such quantitative summary of the applicant reactions literature to be published to date. Despite these findings being perhaps counter-intuitive to what some have argued in the past, careful examination of the array of data presented in this paper (see Tables 1 and 2) covering 10 different predictor methods and eight separate dimensions of applicant reaction reveals that in almost all cases the reaction generalizability hypothesis is supported. The primary studies included in our final sample covered 17 different countries spanning three continents, namely, Belgium, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Morocco, the Netherlands, Portugal, Romania, Singapore, South Africa, Spain, Turkey, and the United States. Given the wide differences in use of selection methods, HRM practices, and other cultural and socio-economic differences across these countries, one could initially have argued that situational specificity would be highly likely to be found and that major cross-national differences in applicant reactions would be highly probable.

This begs the question why has this finding emerged? Several potential explanations can be advanced. First, examining the original primary studies, it is clear that within-country and within-study variations in applicant reactions per dimension by method are greater than across-country variations. It may well be that even though applicants in different countries have experienced different levels of exposure to different methods, there remain underlying, structural differences in reactions that are determined by ubiquitous characteristics inherent in

different methods. Support for this explanation can be further derived from the credibility interval findings presented in the present meta-analytic effort and in the dimension-specific differences in applicant reactions. These findings suggest that any future studies that propose situational specificity in applicant reactions should be theoretically grounded and hypothesis-driven, rather than merely stating general assumptions or expectations for finding cross-country differences. Second, our findings again support the notion that there is a common rank order of reactions at least in overall favorability reactions to predictor methods used for employee selection. Thus, even if there may be some scale differences in precise ratings per country, it is likely that this general pattern will still prevail. The consistently most favorable methods regardless of country of applicant origin are work samples and interviews, followed by resumes, cognitive ability tests, references and personality tests. Least favored methods overall, and on several specific dimensions, are honesty tests, personal contacts and graphology. It should be noted here that these overall favorability reactions included a range of primary studies, not just those having utilized the Steiner and Gilliland (1996) questionnaire method. Third is the possibility that there may be an underlying set of relatively simple dimensions that underlie applicant reactions (e.g., perceived job relevance, ability to perform, perceived procedural, and distributive justice) and that these account for substantial variance in reactions regardless of method characteristics (see also Ployhart & Ryan, 1997, 1998). From the present analysis, and even from previously published primary studies, it is not possible to ascertain whether this is the case, but this possible explanation appears plausible and should be considered in future research into the underlying causes of applicant reactions.

Having stated this overall finding of reaction generalization, it is important to emphasize several caveats around this central finding. We are certainly not claiming that applicant reactions will inevitably demonstrate this pattern of reactions regardless of the selection situation or of wide international differences in the way in which different predictors may be used to reach outcome decisions by organizations (Ryan *et al.*, 1999). Indeed, it is likely that there will be other factors and potential moderator variables affecting applicant reactions across different selection situations, in different countries, at differing levels of job entry, and so forth (e.g., Phillips & Gully, 2002; Salgado *et al.*, 2003a, 2003b; Truxillo & Bauer, 1999). Future research could most valuably uncover and begin to quantify the precise effects of these moderator variables, their relative importance, and the boundary conditions within which various moderators affect applicant reactions. Nevertheless, our findings are clear: Applicant reactions reveal a pattern of favorability perceptions that suggest substantially greater consensus and

similarity than previously been thought to be the case by researchers. Indeed, our quantitative integration of primary studies spanning 17 culturally divergent countries and including reactions to 10 popular methods of selection suggests a rather common set of reaction favorability effects. Three clear clusters of overall reaction favorability emerged – *most preferred* (work samples, interviews), *favorably evaluated* (resumes, cognitive tests, references, biodata, personality inventories), and *least preferred* (honesty tests, personal contacts, graphology).

4.2. Dimension-specific applicant reactions

A more fine-grained examination of our findings shows several intriguing dimension-specific results in terms of applicant reactions to certain methods on certain procedural justice sub-dimensions (Gilliland, 1993; 1994). First, applicants perceived interviews as possessing greater face validity than almost any other method of candidate assessment (only work samples were more highly perceived). This clearly stands at odds with a considerable volume of research across personnel selection psychology that would suggest that interviews, especially unstructured interviews, are less valid or reliable than work samples, cognitive ability tests, or even integrity tests (Schmidt & Hunter, 1998). Even highly structured interviews are less valid than work samples and around equally as valid as cognitive ability tests (Schmidt & Hunter, 1998). Further, we would query here the experience of different applicants in that most will probably have been exposed mostly to unstructured interviews given their greater popularity in several countries over their more structured counterparts (e.g., Ryan *et al.*, 1999). This combined, catch-all category of interviews thus obscures possible differences between applicant reactions to structured and unstructured interviews, and we would question whether applicants even perceive unstructured interviews to be more face valid and scientifically based than say work samples or cognitive tests. These findings have implication for organization's design of selection procedures especially in situations where the recruiting organization is especially concerned with applicant reactions, withdrawal of top choices, and potential litigation (Anderson, *in press*).

Second, rather unexpected findings emerge from our results with regard to the dimension of respectful of privacy. Here, cognitive tests emerge as being the single most positively regarded method, some way above even work samples, resumes, and interviews. Honesty tests were perceived as being the least favored method by applicants on this particular dimension, even below mean reactions to graphology or personal contacts. Combined with rather negative-to-neutral ratings on other dimensions such as employer's rights to use, opportunity to perform, and face validity, the potential here for negative outcomes for organizations (mis)using honesty tests is

obvious. Applicants are likely to be critical of the basis upon which honesty tests are used, perhaps feel aggrieved that the method did not allow them a fair chance to perform, and that this method fails to respect their privacy in some manner. Such a combination of factors does not bode well for such outcomes as applicant decision making, satisfaction with this particular stage of the selection procedure, and even potential toward commencing litigation by rejected and disgruntled, unsuccessful applicants (Anderson, in press). Of course, these negative feelings may be ameliorated by the applicant's overall experience of a multi-stage, multi-method selection procedure, but these findings call for follow-up research by selection psychologists active in the area of honesty and integrity testing.

4.3. Correlations with operational validity and organizational use

In addition to calculating mean applicant reactions on several dimensions, we investigated the relation between applicant reactions and operational validity as well as with international usage as reported in Schmidt and Hunter (1998) and Ryan *et al.* (1999). Ratings on overall favorability, scientific evidence, opportunity to perform, and face validity (r 's between .629 and .700) displayed strong relationships with the operational validity of selection methods. It can thus be concluded that applicants possess relatively accurate perceptions of the validity of personnel selection methods. This finding can be contrasted against those reported recently by Furnham (2008) from a survey of British HR practitioners into their beliefs over the validity, cost, practicality, and legality of selection methods. Of the predictor methods also investigated in the current study, Furnham reported that selection practitioners believed assessment centers, work samples, and cognitive ability tests to be the most valid predictors, whereas references, biodata, and peer ratings were perceived as the least valid. Ironically, it thus appears from these two studies at least that applicants may possess somewhat more accurate notions of the operational validity of selection methods than some HR managers. However, these two studies clearly warrant further research and replication, especially to confirm the relative accuracy of validity beliefs of HR practitioners relative to those of applicants.

Second, the strong positive relationship between overall favorability and validity found in this study reveals that applicants prefer valid over less valid selection methods. This is important in that it counters any suggestion that validity and preference reactions are in some manner negatively related. Thus, our findings highlight that organizational considerations over the validity of selection methods can be accommodated simultaneously with their desire to expose applicants only to methods that are perceived as being favorable in terms of their treat-

ment and justice perceptions (Gilliland, 1994). Findings by Viswesvaran and Ones (2004) seem a particularly fruitful avenue for further research in this respect. The authors report significant correlations between applicant reactions and demographic and personality (Five-Factor Model) characteristics.

Finally, with regard to the relationship between applicant reactions and international use by recruiter organizations, our results are encouraging. Selection methods that are perceived positively by applicants on employer's rights, opportunity to perform, and face validity, and are positively received overall, tend to be used more often internationally than selection procedures that are less favored. Overall this suggests that organizations (intentionally or otherwise) tend to use selection methods that are in line with applicants' favorability reactions and that are perceived as being justifiable, defensible, and fair.

4.4. Implications for practice: Selection system design and expatriate selection

Our central finding of reaction generalization has important implications not only for future research into applicant perceptions and behavior but also for organizational practices in the design and operation of selection procedures that involve applicants from different countries of origin. The key implication is that, all other factors being equal, organizations and recruiters need not be overly concerned that applicants from different countries will react substantively differently to the 10 popular selection methods covered in this meta-analysis. Obviously, it cannot be assumed that our results will generalize to other predictors outside of this list, and we would furthermore urge caution in assuming that these findings will replicate to all segments of the labor market, especially for very senior appointments, technical selection procedures, or where specific local factors are uppermost in the concerns of recruiters (see also, Bauer *et al.*, 2001). However, this caveat noted, our findings add considerable weight of evidence that should reassure selection system designers where international candidates may be applying that their reactions to these methods are likely to be far more similar than had previously been supposed in primary studies into applicant reactions (e.g., Bertolino & Steiner, 2007; Marcus, 2003; Moscoso & Salgado, 2004; Nikolaou & Judge, 2007; Phillips & Gully, 2002; Steiner & Gilliland, 1996). In all of these past primary studies, and in the absence of prior research, the authors quite reasonably argued that applicant reactions would likely vary in their country due to various cultural, socio-economic, HRM procedural, and selection method usage differences. However, our findings are that applicant reactions vary only marginally across different countries and the pattern of favorability perceptions for different methods is remarkably similar across all countries thus far researched. Any differences

that do exist appear to be greater between-method than between-country, but we do acknowledge that there may still be a country-level, situational specific component to applicant reactions above and beyond that of any generalized reaction. Organizational selection system designers should therefore pay greater heed to these between-method differences when deciding upon predictor methods, rather than become unduly concerned that cultural differences will undermine any standardized selection procedures at least in terms purely of applicant reactions. Fortunately, our findings also suggest that the most favorably perceived methods by candidates are also likely to possess greater operational validity for reaching hiring decisions.

4.5. Strengths and limitations of the present quantitative integration

The present study has both inherent limitations and strengths. In terms of limitations, first, it is clear that the list of countries now covered by primary studies, although being extensive and having grown rapidly, excludes a large number of other countries globally. Further studies are called for to extend the list of countries we were able to include primary studies from within this quantitative summary to establish whether applicant reactions differ in those countries. Second, the range of samples included in the primary studies coded for this meta-analysis tends to focus upon more junior level, entry-level job roles and student surrogate samples. Although this has been acknowledged elsewhere in the applicant reactions literature (e.g., Phillips & Gully, 2002; Ryan & Ployhart, 2000; Truxillo *et al.*, 2009), this unavoidable shortcoming needs to be noted here. Third, it is both a limitation and a strength that the present effort focused solely upon applicant reactions and not upon any consequences or outcomes stemming from these reactions. Thus, it was not appropriate to compute corrections for unreliability or restriction of range in any dependent variable in this particular analysis. It was also inappropriate to attempt to correct for unreliability in the attitude scales used in past primary studies to measure applicant reactions.

Having noted these potential limitations, it is reasonable to also briefly highlight some strengths in the present study. First, we were able to include up to 38 separate independent samples from 17 countries globally. This was thus an extensive and robust database upon which to compute meta-analytic and correlational findings. Second, for all of the dimensions other than overall favorability, most primary studies included were based upon the Steiner and Gilliland (1996) measure, thereby reducing concerns over uncontrollable method variance in this meta-analytic effort for at least this dimension of overall favorability. Finally, we were able to correlate these findings against independent, published studies into

operational validity of selection predictors and surveys of their use internationally; the first time this has been done to the knowledge of the present authors.

5. Conclusion

As the first meta-analysis to the knowledge of the authors to have examined applicant reactions internationally, our findings present an important step forward in the applicant perspective literature in selection. Our sample of 38 independent samples drawn from 17 divergent countries internationally permits some definitive conclusions to be drawn regarding the competing hypotheses of reaction generalization versus situational specificity in connection with applicant reactions to popular selection methods widely used for employee selection. Counter to previous suggestions which were quite prominent in the literature that applicant reactions would likely vary considerably between countries, our findings suggest that in fact applicant reactions are likely to be far more similar across countries than was previously thought. Rather, inherent aspects of predictor methods are likely to generate applicant reactions regardless of the country in question in which they are being used by recruiting organizations. Fortunately, these generalizable favorability reactions are in line with other findings into selection method validity and international usage by recruiter organizations. Obviously, further research is called for to investigate specific moderator conditions within countries and within specific selection scenarios where applicant reactions may vary in response to unique conditions and circumstances. However, our findings give initial reassurance that applicant preference perceptions of favorability and organizational concerns over validity for employment decision making may tend towards being synonymous. Thus, in quantitatively summarizing the extant body of applicant reactions studies internationally, and by correlating our findings with other published findings over predictor method validity and popularity of use globally, these findings permit the field of applicant perspective research to move forward substantially by establishing reaction generalization to selection methods and thus to open up new avenues for necessary future research into applicant preferences and perceptions.

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