Applicant reactions are similar across countries:

A refined replication with assessment center data from the European Union

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Abstract

Many organizations receive applications from people from different countries, and this is reflected in the research interest in cross-cultural differences in applicant reactions. The results of this research stream suggest only a minor role of country differences, but should be considered as preliminary in nature for several reasons. In particular, many studies have been conducted with students as hypothetical applicants, and assessment Centers (ACs) have largely been neglected so far. Trying to overcome previous shortcomings, we examined applicant reactions to an AC conducted by the European Personnel Selection Office for selecting employees for European Union institutions. Applicants from eight European countries ($N = 243$) rated the AC on six reaction dimensions: measurement quality, face validity, controllability, absence of stress, good organization, and positive atmosphere. Reassuring for practitioners, results did again not suggest cross-cultural differences.

*Keywords*: personnel selection; applicant reactions; assessment center; cross-cultural differences
Within the growing research field of applicant reactions, particular attention has been paid to country comparisons: Do applicants from different countries and cultures perceive selection methods similarly or are such reactions situation-specific (e.g., Steiner & Gilliland, 1996)? This is an important question because globalization means that more and more organizations are operating in a multinational context and that more and more applicants for jobs in one country come from different cultural backgrounds.

Previous cross-cultural research on applicant reactions (e.g., Steiner & Gilliland, 1996) has often started with the observation that countries differ in the use of selection methods (e.g., graphology is only used in some countries, cf. Bangerter, König, Blatti, & Salvisberg, 2009; for data cross-culturally different usage of selection methods see also Ryan, McFarland, Baron, & Page, 1999), leading to the expectation of cross-cultural differences. Anderson, Salgado, and Hülsheger’s (2010) meta-analysis, however, suggested that applicant reactions were fairly similar across countries, and other recent research (e.g., Ryan et al., 2009; Snyder & Shahani-Denning, 2012) seems to support Anderson et al.’s finding rather than disprove it.

Yet, there are several reasons to consider previous research results as only preliminary in nature. First, although Nikolaou and Judge (2007) pointed out differences in favorability of selection methods between employees and students, participants in previous studies were often students, sometimes with only limited work experience (e.g., Bertolino & Steiner, 2007). Second, even when participants were employees (e.g., Anderson, Ahmed, & Costa, 2012), they were merely asked to imagine experiencing selection methods that were briefly described, but were not real applicants. Third, neither student nor employee samples were homogenous, but had various backgrounds – for instance, a Saudi Arabian sample came from the healthcare industry (Anderson et al., 2012), whereas an Indian sample consisted of managers from different industries (Snyder & Shahani-Denning, 2012). Fourth, previous research has often relied on the questionnaire developed by Steiner and Gilliland (1996), despite the fact that its use of single-item scales has been criticized. Fifth, applicant reactions
to assessment centers (ACs) are rarely examined (for an exception, see Snyder & Shahani-Denning, 2012), despite the widespread use of ACs (e.g., König, Klehe, Berchtold, & Kleinmann, 2010). Fifth, there has been an intense debate about the replicability of psychological findings and an intensified call for more replication studies (e.g., Koole & Lakens, 2012).

To overcome these shortcomings of previous research, we exploited the unique situation of applicants who are interested in working for the European Union (EU). The EU selects its personnel with a system of open competitions (“concours”), which means that EU citizens apply for a family of upcoming open positions instead of a specific job (Ban, 2010). The selection process is conducted by the European Personnel Selection Office (EPSO) and typically contains a first phase including check of curriculum vitae or reasoning tests and a situational judgment test. The second phase is an AC that includes a group exercise, an oral presentation, and a specific case study as well as a structured interview (see http://europa.eu/epso/apply/sample_test/index_en.htm). If selected, applicants are placed on a reserve list (for around three years), and whenever an EU institution has a vacant job, it uses the respective reserve list to short-list applicants for job interviews. Thus, being on the reserve list does not guarantee a job at the EU, but does make it likely.

The EU selection procedure means that up to 1,000 participants go through the same standardized assessment center. We used this unique selection situation to test how (real) applicants who come from different countries and take part in the same concours react to the same AC, measuring the applicant reactions with a multidimensional and multi-item questionnaire (Kersting, 2010).

**Method**

**Sample**

Using an online survey, we asked the 883 job applicants who participated in ACs for a particular EPSO concours about how fair they perceived the AC of that concours to be; the
survey took place about two years after the AC in question. A total of 411 applicants filled out the data (response rate = 47%), but 54 had to be excluded due to too many missing data (mainly due to not finishing the survey). Although participants came from 23 of the 27 EU member countries (at that time), we limited our sample to those eight countries from which more than 15 persons had taken part in our survey ($N = 243$): Belgium, France, Germany, Hungary, Italy, the Netherlands, Romania, and Spain (see Table 1, for further descriptive information see Table 2).

**Measure**

Applicant reactions were measured by a modified version of the AKZEPT!-AC questionnaire (Kersting, 2010), which was designed on the basis of the heuristic model of Hausknecht, Day, and Thomas (2004) for the explicit purpose of measuring applicant reactions to ACs (see also Merkulova, Melchers, Kleinmann, Annen, & Tresch, 2014). In this questionnaire, participants rate their experience in AC on six dimensions (with four items per dimension): measurement quality (Cronbach’s $\alpha = .90$, sample item: “The AC reliably measures what it intends to measure”), face validity ($\alpha = .83$, sample item: “The AC is a good instrument to select people who are suitable for the profile”), controllability ($\alpha = .86$, sample item: “I understood the exercises of the AC”), absence of stress ($\alpha = .76$, sample item: “Participating in the AC was an exhausting experience”), good organization ($\alpha = .74$, sample item: “The AC was smoothly organised”), and positive atmosphere ($\alpha = .78$, sample item: “The atmosphere of the AC was positive”). Small adaptations were made to fulfill requirements of the EPSO (e.g., no negatively framed items).

After being recoded (if necessary), items ranged from $1 = \text{strongly disagree}$ to $5 = \text{strongly agree}$. Consistent with the EU’s language policy, for our survey, we used the three languages in which the AC was available (English, French, and German). The AKZEPT!-AC
questionnaire was already available in French and German; in cooperation with the EPSO, we created an English version, which 81% of the participants answered.¹

**Results**

Table 1 provides an overview of applicant reactions to the AC in the eight different countries considered in this study. In descriptive terms, participants perceived the AC as very controllable and well organized; the atmosphere was experienced as very positive, albeit as somewhat stressful. Participants gave only medium ratings for face validity and measurement quality.

To test whether applicant reactions differ between countries, we conducted a multivariate analysis of variance (MANOVA). Assumptions for MANOVA (Field, 2009) were met: QQ plots generally revealed univariate normality, Levene's test revealed equality of variances between groups ($p > .10$), and Box’s test revealed sufficient robustness ($p = .02$, with Field, 2009, requiring a $p$-value of .001 as the significance threshold). The MANOVA showed no significant multivariate country differences, Wilk's $\Lambda = .79$ with $F(42, 1082.25) = 1.36$, $p = .06$, and $\eta^2 = 0.04$.

Although this probability of .06 means that we could not establish significance at conventional levels, we nevertheless conducted univariate ANOVAs as follow-up tests (see Table 1), which suggested that there might be country differences regarding controllability ($p < .05$) and positive atmosphere (but only at $p = .06$). Robust Games-Howell post hoc tests (Field, 2009) did not establish any significant comparisons regarding controllability but indicated that Romanian applicants perceived the AC atmosphere as more positive than Italian applicants ($p < .05$) and than French, German, and Dutch applicants, although only at $p < .10$.

In addition, we also explored whether female and male applicants differed in their AC reactions. No significant gender differences were found, Wilk's $\Lambda = 0.97$, $F(6, 236) = 1.22$, $p = .29$. Furthermore, we attempted to replicate (e.g., Rolland & Steiner, 2007) that successful

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¹ The French version contains three additional items that measure self-reported faking, which we also translated and used. Due to the unreliability of this scale ($\alpha = .55$), however, we refrained from analyzing these data further.
applicants react more favorably than unsuccessful ones: Applicants on the reserve list reacted more favorably, Wilk's $\Lambda = 0.78$, $F(6, 236) = 10.94, p < .001$, and had a more favorable picture of the employer (measured with the item “As a result of the competition, has your perception of the European Union institutions as a potential employer changed?”, with the response scale ranging from $1 = \text{it has got a lot worse}$ to $5 = \text{it has improved a lot}$), $M_{\text{on reserve list}} = 3.07 (SD = 0.79)$ vs. $M_{\text{not on reserve list}} = 2.70 (SD = 0.96)$, $t(235.30) = 3.24, p < .01$. Similarly, applicants on the reserve list also had stronger intentions to recommend others to apply (measured with the item “Would you recommend others to apply for a job in the EU institutions?”, with the response scale ranging from $1 = \text{definitely yes}$ to $5 = \text{definitely not}$), $M_{\text{on reserve list}} = 4.36 (SD = 0.81)$ vs. $M_{\text{not on reserve list}} = 3.92 (SD = 0.98)$, $t(241) = 3.81, p < .001$.

**Discussion**

We found no systematic evidence for county differences regarding applicant reactions to the ACs when we examined the reactions of applicants from eight European countries to the same AC that was used to select employees for European Union institutions. Thus, our study does not support the idea that applicant reactions are influenced by the cross-cultural background of applicants (e.g., Steiner & Gilliland, 1996) and extends previous research (e.g., Anderson et al., 2010) by focusing on ACs and by using an improved design: Our participants were real applicants (instead of students) in a non-hypothetical selection situation, applied for the same group of jobs, and completed the same AC. Moreover, we used a newly developed multidimensional and multi-item measure (Kersting, 2010). If any kind of effect can be deduced from the data, Romanian participants rated the atmosphere of the AC as somewhat more positive than applicants from some other countries.

Although the design of our study overcomes previous shortcomings, we need to mention potentially limiting factors. First, EPSO’s selection process, such as the AC, is probably more transparent than most others because there is detailed information publicly available (see [http://europa.eu/epso/apply/sample_test](http://europa.eu/epso/apply/sample_test)). This transparency is due to the EU’s
general principle of transparency, and EPSO tries its best to follow it proactively (i.e., before files have been suited). Although it therefore remains to be tested how well reactions to this particular AC generalize to reactions of other ACs, it is unlikely that the characteristics of the EPSO AC affect comparisons among EPSO applicants from the same AC during the same concours. Second, the survey took place two years after the AC, and some respondents might have found it difficult to remember all details. However, it should be kept in mind that time difference between the AC and the survey was the same for all respondents. Third, our analyses only included participants from eight countries (8 out of 24 country subsamples) in our analysis. There were, however, no significant differences between the excluded and included participants regarding job field proportions, $\chi^2(5) = 0.50, p = .99$, gender proportions, $\chi^2(2) = 2.21, p = .33$, or mean age, $t(331) < 1$. Fourth, although cross-cultural differences may not matter that much for applicant reactions, they might still matter for the way in which applicants behave (e.g., König, Wong, & Cen, 2012) and for the organizational usage of selection methods (cf. Ryan et al., 1999).

More research on applicant reactions to selection methods other than the AC is also needed, as the question of the extent to which the AC results generalize to other methods remains open. AC are fairly expensive and are thus often the final hurdle in a selection process (which is also true for the European Union selection concours), and participants invited to ACs are therefore often highly pre-selected, which could influence their reactions. For example, cross-cultural research could study applicant reactions to structured behavioral interviews (cf. Salgado, Gorriti, & Moscoso, 2008) or to video resumes (cf. Hiemstra, Derous, Serlie, & Born, 2012). Furthermore, future research could try to develop hypotheses about the role of cultural dimension for applicant reactions (cf. Hoang, Truxillo, Erdogan, & Bauer, 2012) and then gather applicant reaction data from cultures that differ on this particular dimension. For example, it could be argued that the cultural dimension of collectivism-individualism matters for instance for interviews (e.g., collectivistic applicants might react
more positively to panel interviews than individualistic applicants, cf. Salgado et al., 2008), and researches could thus try to collect data from cultures that vary in their collectivism.

This study has important implications for practitioners – in particular for practitioners who work for international organizations (e.g., World Bank, OECD, UNESCO etc.), but also for those who work for domestic organizations that attract applicants from different countries, because practitioners do not need to worry that using an AC will create different applicant reactions if applicants come from different parts of the world. Although there is variance in applicants’ reactions, the source of this variance does not seem to lie in cross-cultural differences. At the same time, this study shows that investing time and money into the design of an AC (in this case, by the EU; see Ban, 2010) pays off because applicants from different countries all react similarly positively.
References


Table 1

Applicant reactions to the AC in the eight country samples

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Belgium (n = 36)</th>
<th>France (n = 18)</th>
<th>Germany (n = 29)</th>
<th>Hungary (n = 19)</th>
<th>Italy (n = 57)</th>
<th>Netherlands (n = 26)</th>
<th>Romania (n = 24)</th>
<th>Spain (n = 34)</th>
<th>Total (N = 243)</th>
<th>F(7, 235)</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controllability</td>
<td>4.15 (0.72)</td>
<td>3.72 (0.53)</td>
<td>4.15 (0.59)</td>
<td>3.92 (0.76)</td>
<td>3.75 (0.76)</td>
<td>3.90 (0.56)</td>
<td>4.17 (0.65)</td>
<td>3.79 (0.79)</td>
<td>3.93 (0.71)</td>
<td>2.25</td>
<td>.03</td>
<td>.06</td>
</tr>
<tr>
<td>Measurement quality</td>
<td>2.94 (0.93)</td>
<td>2.72 (0.88)</td>
<td>2.74 (0.88)</td>
<td>2.58 (0.95)</td>
<td>2.60 (0.89)</td>
<td>3.05 (0.78)</td>
<td>3.13 (1.12)</td>
<td>2.76 (0.88)</td>
<td>2.80 (0.92)</td>
<td>1.45</td>
<td>.18</td>
<td>.04</td>
</tr>
<tr>
<td>Face validity</td>
<td>3.01 (0.91)</td>
<td>2.79 (0.84)</td>
<td>3.05 (0.89)</td>
<td>2.91 (1.04)</td>
<td>2.67 (0.98)</td>
<td>2.92 (0.81)</td>
<td>2.97 (1.05)</td>
<td>2.79 (0.78)</td>
<td>2.87 (0.91)</td>
<td>0.79</td>
<td>.60</td>
<td>.02</td>
</tr>
<tr>
<td>Absence of stress</td>
<td>2.51 (0.68)</td>
<td>2.63 (0.82)</td>
<td>2.50 (0.72)</td>
<td>2.12 (0.78)</td>
<td>2.46 (0.74)</td>
<td>2.50 (0.74)</td>
<td>2.63 (0.89)</td>
<td>2.48 (0.88)</td>
<td>2.48 (0.77)</td>
<td>0.82</td>
<td>.57</td>
<td>.02</td>
</tr>
<tr>
<td>Good organization</td>
<td>3.88 (0.74)</td>
<td>3.72 (0.64)</td>
<td>3.90 (0.59)</td>
<td>3.86 (0.78)</td>
<td>3.73 (0.78)</td>
<td>3.65 (0.74)</td>
<td>4.04 (0.57)</td>
<td>3.71 (0.50)</td>
<td>3.80 (0.69)</td>
<td>0.95</td>
<td>.47</td>
<td>.03</td>
</tr>
<tr>
<td>Positive atmosphere</td>
<td>3.82 (0.67)</td>
<td>3.57 (0.80)</td>
<td>3.72 (0.77)</td>
<td>3.59 (0.97)</td>
<td>3.65 (0.74)</td>
<td>3.74 (0.62)</td>
<td>4.24 (0.55)</td>
<td>3.79 (0.80)</td>
<td>3.76 (0.75)</td>
<td>1.99</td>
<td>.06</td>
<td>.06</td>
</tr>
</tbody>
</table>

Note. Descriptive information on the six applicant reaction dimensions (Kersting, 2010) plus results of follow-up ANOVAs.
Table 2

*Sample description*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>34%</td>
</tr>
<tr>
<td>Male</td>
<td>66%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>$M$</td>
<td>33 years</td>
</tr>
<tr>
<td>$SD$</td>
<td>5.0 years</td>
</tr>
<tr>
<td>Job fields applicants applied to in this concours</td>
<td></td>
</tr>
<tr>
<td>European public administration</td>
<td>32%</td>
</tr>
<tr>
<td>Statistics</td>
<td>19%</td>
</tr>
<tr>
<td>Audit</td>
<td>14%</td>
</tr>
<tr>
<td>Finance</td>
<td>14%</td>
</tr>
<tr>
<td>Economics</td>
<td>12%</td>
</tr>
<tr>
<td>Law</td>
<td>8%</td>
</tr>
<tr>
<td>Success of the applicants</td>
<td></td>
</tr>
<tr>
<td>Receipt of a reserve list position</td>
<td>49%</td>
</tr>
<tr>
<td>Of these: Currently working for EU institutions</td>
<td>75%</td>
</tr>
<tr>
<td>Rejection of offer</td>
<td>4%</td>
</tr>
</tbody>
</table>