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SELECTION TOOL USE: A FOCUS ON PERSONALITY TESTING IN CANADA, THE UNITED STATES, AND GERMANY

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ABSTRACT

KEYWORDS

personnel selection, selection tools, personality testing, research–practice gap

The purpose of this paper is to provide new data regarding the current staffing practices being used by organizations in Canada and the United States (US) as well as a comparison with existing data from Germany (Diekmann & König, 2015). Data regarding the beliefs of human resource (HR) practitioners in terms of using personality tests in personnel selection are also provided. A geographically representative sample of 453 HR practitioners across Canada and the US were surveyed. Although general mental ability testing has previously been found to be highly valid and cost effective, this selection tool was among the least commonly used in all three countries. Personality tests were also rarely used (especially in Canada and the US) and research–practice gaps still appear to be an issue (e.g., HR practitioners' preference for personality types as opposed to traits).

The purpose of this paper is to provide new data regarding the current staffing practices being used by organizations in Canada and the United States (US) as well as a comparison with existing data from Germany (Diekmann & König, 2015). A further investigation pertaining to the beliefs of human resource (HR) practitioners in terms of using personality testing in personnel selection is also provided. The impact of this research will have appeal to both researchers and practitioners in the industrial–organizational psychology community. For practitioners, having a better understanding of the selection tools that are valid but are rarely used by organizations will be especially relevant for gaining a competitive advantage in selecting the best talent. Moreover, personality test providers will be interested to learn about practitioner beliefs relating to the use of personality testing in selection. For researchers, new insights will be provided that will update the potential disconnect between the selection research literature and the behavior and beliefs of practitioners. Researchers will be interested to know whether the methods that they are investing resources into studying are in fact being utilized and potentially where the focus of future research efforts should be directed.

The importance of selection to organizations cannot be understated, and there is a vast literature supporting the benefits associated with making accurate hiring de-

isions. For example, selection testing that has included cognitive ability and personality tests has led to improved performance at the individual level (as mediated through advanced training and experience; Ployhart, Van Iddekinge, & MacKenzie, 2011). Meta-analytic evidence has also supported the importance of human capital relating favorably to firm performance (e.g., Crook, Todd, Combs, Woehr, & Ketchen, 2011). Thus, it is in an organization's best interests to make use of accurate selection tools in order to acquire the human capital necessary to drive organizational success.

Although selection tools have the ability to improve the human capital within firms, there has been no recent research into the prevalence of various selection tools across Canadian and American organizations. Mann and Chowhan (2011) acknowledged that “little is known about whether practitioners use the recommended selection practices” (p. 435) and provided data regarding selection tool use; however, these authors only focused on personality tests, job knowledge tests, and interviews, using secondary data collected between 1999 and 2005. Recently, Ryan et al. (2015)

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conducted a multicountry investigation into testing trends as a follow-up to a similar, earlier initiative (Ryan, McFarland, Baron, & Page, 1999); this recent initiative involved surveying higher level HR professionals (e.g., HR managers, directors, and executives) and obtained responses from HR professionals in 24 countries—the US and Germany were represented in their sample, but Canada was not and Germany comprised less than 2% of their total sample. It is also worth noting that the survey conducted by Ryan et al. (2015) did not assess the prevalence of some important selection tools, such as interviewing and résumé reviewing.

Overall, much of the extant selection tool use research is dated (e.g., Rowe, Williams, & Day, 1994; Ryan & Sackett, 1987); focused on highly specific groups, such as industrial and organizational psychologists who were almost all PhD holders (Ryan & Sackett, 1987) or higher level HR employees (Ryan et al., 2015), or focused on broad groups, such as general employees (i.e., not HR practitioners; Mann & Chowhan, 2011); or was conducted only within a specific geographic region, such as Canada (Mann & Chowhan, 2011), Germany (Diekmann & König, 2015), or the United Kingdom (Jackson, Dewberry, Gallagher, & Close, 2018). We will advance the extant knowledge of selection tool use by reporting the results of a new survey of HR practitioners that utilized a geographically representative sampling strategy across Canada and the US. Moreover, we will also compare the data collected in Canada and the US with a similar recent initiative in Germany (Diekmann & König, 2015). It is worth noting that Ryan et al. (2017) showed little evidence of a connection between cultural practices and selection practices; thus, we seek to add to this existing research by investigating the extent of the differences (if any) among the three countries investigated in the current study.

We also seek to address Mann and Chowhan's (2011) conclusion that "There is plenty of work to be done to understand the practitioners' view" (p. 437) by conducting a specific investigation into practitioner beliefs regarding personality testing in selection. The study of personality testing as a selection tool gained significant momentum in the selection research literature after the publication of seminal meta-analytic work that provided evidence of the criterion-related validity of Big Five personality traits, such as Conscientiousness (Barrick & Mount, 1991; Tett, Jackson, & Rothstein, 1991). Furthering the interest in personality testing was evidence of the incremental validity (above and beyond general mental ability) that personality testing was able to provide (e.g., Schmidt & Hunter, 1998) although generally being found to be relatively free of adverse impact (e.g., Hogan, Hogan, & Roberts, 1996). Although practitioner beliefs regarding personality testing in selection have not been given significant research attention in Canada and the US, the study by Diekmann and König (2015) included an investigation into the beliefs of practitioners regarding

personality testing in Germany. Diekmann and König (2015) included a comparison between actual personality test users and nonusers regarding their perceptions of the usefulness of personality testing. We seek to extend this research by surveying HR practitioners in Canada and the US regarding their perspectives related to personality testing in selection.

In the current study we investigate three research questions with respect to selection tool use and the use of personality tests in selection:

Research Question 1: Which personnel selection tools are currently being used by selection practitioners?

Research Question 2: For what purposes do selection practitioners believe that personality testing is useful and do these perceptions depend on whether practitioners are actual personality test users?

Research Question 3: What are selection practitioners' preferences regarding personality test properties, administration options, methods for finding a personality test, and quality?

METHOD

Study Design

A Qualtrics panel¹ was used to provide a sample of professionals currently working in Canada and the US. This data collection service allows researchers access to Qualtrics' panel of prescreened participants. Qualtrics then invites participants who match the parameters provided by the researchers to participate in the research study. This sampling strategy is consistent with the procedure utilized by Highhouse, Brooks, Nesnidol, and Sim (2017).

For the current study, it was specified that the sample include professionals currently working in the HR department at their organization as at least part of their job. It was further specified that respondents be currently working in Canada and the US with the data collection to be representative of province² and state size across Canada and the US (i.e., more respondents from the larger provinces and states). Participants were invited by Qualtrics to complete an online survey, which included the measures detailed below.

1 <https://www.qualtrics.com/online-sample/>

2 Quebec was excluded from the sampling strategy because the primary language in that province is French, and the survey was not translated into that language. Prince Edward Island and the Canadian territories were excluded from the sampling strategy due to their low populations and the resulting difficulty in recruiting HR professionals in those geographic regions to complete the survey.

Participants

Participant demographics. Of the 453 respondents, 119 (26.3%) were from Canada and 334 were from the US (73.7%); of those 109 (24.1%) indicated they were male, 343 (75.7%) indicated they were female, and one respondent did not answer the gender question (.2%). The gender composition of our sample is representative of the populations from which we sampled; for example, the *US Department of Labor's* (n.d.) statistics indicate that 75% of HR managers in 2018 were female. Average respondent age was 40.56 ($SD = 11.13$). The most common races/ethnicities³ indicated by the respondents that were working in Canada ($n = 119$) were White/Caucasian (82; 68.9%), Chinese (13; 10.9%), South Asian (5; 4.2%), Latin American (4; 3.4%), Southeast Asian (4; 3.4%), and multiple visible minority (4; 3.4%). The most common races/ethnicities indicated by the respondents that were working in the US ($n = 334$) were White (242; 72.5%), Black or African American (36; 10.8%), Latino(a) (28; 8.4%), and Asian (16; 4.8%).

The existing data from Germany (Diekmann & König, 2015) included 166 respondents, 62 (37.3%) of whom indicated they were male, 94 (56.6%) of whom indicated they were female, and 10 respondents who did not answer the gender question (6%). More specific details regarding this sample can be found in the first footnote of the Diekmann and König (2015) chapter.

Participant experience and other specifics. Average tenure in the field of employee selection/human resources management was 11.49 ($SD = 7.94$) years. The respondents indicated that they worked for approximately 42.84 ($SD = 8.75$) hours every week. Among the participants, 266 (58.7%) held a university/college degree, 91 (20.1%) held a master's degree/MBA, 73 (16.1%) held a Certified Human Resources Professional (CHRP) designation, and 52 (11.5%) held a Professional in Human Resources® (PHR®) designation.

Of the 453 respondents, only 32 (7.1%) of the respondents indicated that they were not directly involved in at least one activity associated with the employee hiring process (e.g., interviewing applicants, administering employment tests). The data for the 32 participants who reported that they were not directly involved in the employee hiring process were still used in the following analyses because it is likely that HR team members (perhaps in management- or senior management-level roles) who are not directly involved in the day-to-day interviewing of applicants or administering of employment tests would still be knowledgeable regarding the types of selection tools being used in their organization. Overall, the respondents indicated that they were involved in hiring approximately 84.03 ($SD = 216.20$) employees in the last year and 316 (69.8%) of the respondents indicated that they have decision rights regarding the choice of employee selection tests.

Among the participants from the existing data from

Germany (Diekmann & König, 2015), 71.7% held a university education and 77.1% indicated that they have decision rights regarding the choice of employee selection tests.

Participant organizations. Of the 453 respondents, 142 (31.3%) indicated that they were working for an organization that operated internationally. The respondents on average indicated that approximately 4,720 ($SD = 45,203$) employees work at their location and that their organizations currently operate in a wide range of industries. The most common industries included healthcare and social assistance ($n = 78$; 17.2%), manufacturing ($n = 37$; 8.2%), government and public administration ($n = 36$; 7.9%), and retail ($n = 27$; 6.0%).

Among the participants from the existing data from Germany (Diekmann & König, 2015), 72.3% indicated that they were working for an organization that operated internationally, and the respondents on average indicated that approximately 904 ($SD = 1,608.90$) employees work at their location.

Measures

Selection procedures. Consistent with Diekmann and König (2015), the respondents were asked to select from a list of selection tools the procedures that their organization uses in employee selection (there was also an open-ended response option). Selection tools that were not included in the Diekmann and König (2015) study but may also be used in organizations were included in the current study (e.g., reference checks, application forms, background checks). Respondents could select all procedures that applied.

Personality test usefulness. Consistent with Diekmann and König (2015), the respondents were asked to indicate the extent to which they agreed that five possible uses of personality tests were useful on a 7-point scale (1 = *strongly disagree*; 7 = *strongly agree*). Specifically, respondents indicated their agreement with the following uses of personality testing: non-management employee selection, management employee selection, determining which employees to promote within the organization, training and development activities, and team building activities.

Personality test preferences. Consistent with Diekmann and König (2015), the respondents were asked to indicate their preferences (using 6-point semantic differential scales) regarding: (a) test properties and how results are presented (e.g., a narrative report vs. a number-based profile); (b) how the test is administered (e.g., a test taken remotely vs. a test taken on site); (c) how practitioners look for a personality test (e.g., to compare many different tests vs. to compare only a small selection of tests); and (d) the quality of personality tests (e.g., short statements about the

3 Note that the differences between countries regarding their race/ethnicity categories reflects the categories used in each country's national census.

benefits of a test vs. detailed reports about the benefits of a test).

RESULTS

Research Question 1

Our first research question is concerned with which personnel selection tools are currently being used by selection practitioners. Table 1 presents the data from the current study (subdivided between Canada and the US) as well as the data collected in Germany from Diekmann and König (2015). The most common selection tools being used in all three countries were interviews (90.8% in Canada, 93.4% in the US, 97.0% in Germany) and analysis of résumés/CVs/cover letters (82.4% in Canada, 70.1% in the US, 98.8% in Germany). Reference checks (contacting references provided by the applicant; 70.6% in Canada, 53.0% in the US) and analysis of application forms (50.4% in Canada, 58.4% in the US) were also being commonly used in Canada and the US (the German data did not include these selection tools). The least common selection tools being used in all three countries were graphological assessments (i.e., handwriting analysis; 2.5% in Canada, 3.0% in the US, 1.8% in Germany) and general mental ability/IQ tests (4.2% in Canada, 6.0% in the US, 4.8% in Germany). Biodata/biographical information (3.4% in Canada, 3.9% in the US) and assessment of other, nonsocial media information available on the Internet (5.0% in Canada, 5.7% in the US) were also not being commonly used in Canada and the US (the German data did not include these two selection tools).

Selection tool use differences were compared between the three countries included in Table 1 using the chi-square (χ^2) test for independence in order to assess the significance of the differences between the reported frequencies. Analysis of résumés/CVs/cover letters, emotional intelligence tests, reference checks (contacting references provided by the applicant), job knowledge tests, and situational judgment tests were all more commonly used in Canada than the US. Analysis of résumés/CVs/cover letters, interviews, assessment centers, work samples, and personality tests were all more commonly used in Germany than in Canada and the US. We also conducted an exploratory investigation into the potential differences regarding selection tool use in public compared with private sector organizations in our Canada/US data. The only statistically significant difference ($p < .05$) was for interviews, which were more commonly used in private sector organizations. None of the organizations from the German sample were classified as belonging to the public administration sector.

Research Question 2

Our second research question asked for what purposes selection practitioners believe that personality testing is useful and whether these perceptions differ between practitioners who do and do not actually use personality tests. Table 2 presents the data from the current study (combined for Canada and the US⁴) as well as the data collected in Germany from Diekmann and König (2015). Multivariate analyses of variance (MANOVA) collapsing across the five usefulness questions were conducted for each sample. For the combined Canada and US sample, there was a statistically significant difference in usefulness perceptions based on whether participants were personality test users, $F(5, 447) = 2.35, p = .04$, Wilk's $\Lambda = 0.974$, partial $\eta^2 = .03$. For the German sample, there was also a statistically significant difference in usefulness perceptions based on whether participants were personality test users, $F(5, 160) = 4.15, p < .01$, Wilk's $\Lambda = 0.885$, partial $\eta^2 = .12$.

The usefulness of personality tests for nonmanagement employee selection, management employee selection, determining which employees to promote within the organization, training and development activities, and team building activities were compared between actual personality test users and nonusers using independent-samples t -tests. Because of the exploratory nature of our analyses we attempted to decrease our familywise error rate by using an alpha level of .001. Within the Canada and US data there were no statistically significant differences at our more conservative alpha level between actual personality test users compared with nonusers. Within the German data, actual personality test users ($M = 5.16, SD = 1.28$) reported that personality testing for non-management employee selection was more useful compared with nonusers ($M = 3.88, SD = 1.47$), $t(164) = 4.09 (p < .001), d = .93$.

For both actual personality test users and nonusers combined, respondents from Canada and the US ($M = 5.22, SD = 1.33$) reported that personality testing for team building activities was more useful compared with respondents from Germany ($M = 4.48, SD = 1.50$), $t(617) = 5.92 (p < .001), d = .52$. There were no statistically significant differences at our more conservative alpha level between actual personality test users in Canada and the US compared with Germany. For nonusers, respondents from Canada and the US reported that personality testing for nonmanagement employee selection, training and development activities,

4 The data for Canada and the US were combined because when we did separate out the respondents from Canada and the US, the sample size for actual personality test users in Canada dropped to eight respondents, which is likely to be too low to meaningfully analyze.

TABLE 1.
Selection Procedures Being Used in Employee Selection

Selection tools	Canada (<i>n</i> = 119)	United States (<i>n</i> = 334)	Germany (<i>n</i> = 166)
Analysis of résumés/CVs/cover letters ^{abc}	82.4%	70.1%	98.8%
Analysis of application forms	50.4%	58.4%	N/A
Interviews ^{bc}	90.8%	93.4%	97.0%
Assessment centers ^{bc}	19.3%	19.2%	34.9%
Work samples ^{bc}	25.2%	18.6%	37.3%
General mental ability/IQ tests	4.2%	6.0%	4.8%
Personality tests ^{bc}	6.7%	6.6%	15.1%
Background checks (conducted in house)	12.6%	19.5%	N/A
Background checks (conducted by a third party)	35.3%	41.6%	N/A
Graphological assessments (i.e., handwriting analysis)	2.5%	3.0%	1.8%
Emotional intelligence tests ^a	14.3%	6.0%	N/A
Integrity tests	15.1%	11.4%	N/A
Reference checks (contacting references provided by the applicant) ^a	70.6%	53.0%	N/A
Reference checks (contacting references NOT provided by the applicant)	16.8%	11.1%	N/A
Job knowledge tests ^a	40.3%	28.7%	N/A
Situational judgment tests ^a	26.1%	17.1%	N/A
Biodata/biographical information	3.4%	3.9%	N/A
Assessment of social media websites	21.0%	19.5%	N/A
Assessment of other, nonsocial media information available on the Internet	5.0%	5.7%	N/A
Other ^c	0%	1.8%	19.3%

Note. N/A denotes the case when a selection procedure was not included in the Diekmann and König (2015) study.

^a Statistically significant difference ($p < .05$) between Canada and the US

^b Statistically significant difference ($p < .05$) between Canada and Germany

^c Statistically significant difference ($p < .05$) between the US and Germany

and team-building activities were more useful compared with respondents from Germany (all $p < .001$, $.33 \leq d \leq .61$).^{5,6}

Research Question 3

Our final research question asked about the preferences of selection practitioners regarding personality test properties, administration options, methods for finding a personality test, and quality. Table 3 presents the data from the current study (again combined for Canada and the US⁷) re-

5 We used Levene's test for equality of variances for each comparison between users and nonusers. For the Canada/US data, in every case, the variances for users and nonusers were not significantly different. For the German data, four of the five comparisons were insignificant and one was significant ($p < .01$), which was for the beliefs pertaining to the usefulness of personality testing for management employee selection.

6 We also conducted a follow-up analysis to assess whether there was an impact on personality testing usefulness perceptions depending on whether practitioners had decision rights regarding the choice of employee selection tests in their organization. These analyses provided no evidence of any statistically significant differences between those with and without decision rights when using our alpha level of .001.

TABLE 2.
Usefulness of Personality Testing for Various Purposes

Personality test uses	Canada and United States			Germany		
	All respon- dents (<i>N</i> = 453)	Actual test users (<i>n</i> = 30)	Nonusers (<i>n</i> = 423)	All respon- dents (<i>N</i> = 166)	Actual test users (<i>n</i> = 25)	Nonusers (<i>n</i> = 141)
Non-management employee selection ^{ac}	4.36 (1.48)	4.30 (1.66)	4.36 (1.47)	4.07 (1.51)	5.16 (1.28)	3.88 (1.47)
Management employee selection	5.13 (1.28)	5.73 (1.34)	5.08 (1.27)	5.35 (1.34)	6.04 (0.79)	5.23 (1.39)
Determining which employees to promote within the organization	4.33 (1.53)	4.70 (1.58)	4.31 (1.53)	4.33 (1.59)	5.24 (1.45)	4.17 (1.56)
Training and development activities ^c	5.04 (1.32)	5.37 (1.38)	5.02 (1.31)	4.70 (1.46)	5.56 (1.16)	4.55 (1.46)
Team building activities ^{bc}	5.22 (1.33)	5.53 (1.28)	5.20 (1.33)	4.48 (1.50)	5.36 (1.19)	4.33 (1.50)

Note. Scale ranged from 1 (*strongly disagree*) to 7 (*strongly agree*).

^a Statistically significant difference ($p < .001$) between actual test users and nonusers within Germany

^b Statistically significant difference ($p < .001$) between all respondents in Canada/US and Germany

^c Statistically significant difference ($p < .001$) between nonusers in Canada/US and Germany

garding the personality test preference items. The personality test preferences of the respondents were compared with the scale midpoint value (i.e., 3.5) using one-sample *t*-tests. Respondents preferred: the transformation of measured traits to personality types as opposed to a representation of the measured traits on a scale (e.g., 0 – 100); the presentation of the result in several comparable facets as opposed to the aggregation of the result to a single comparable value; a statistical development of the measured traits as opposed to a theory-based development of the measured traits; an independent evaluation as opposed to an evaluation by the provider; a computer-based test as opposed to a pencil and paper test; a test taken on site as opposed to a test taken remotely; a test for which the practitioner did not need a certification as opposed to a test for which the practitioner did need a certification; to search for information via academic journals as opposed to searching personality test provider websites and flyers; to check quality information from other sources as opposed to trusting the information provided by the provider; concise statements about quality criteria as

opposed to extensive information on quality criteria; and a statistical representation of the relationship between measured traits and jobs as opposed to a theoretical explanation of the relationship between the measured traits and jobs.

DISCUSSION

Regarding our first research question, a better understanding of which personnel selection tools are currently being used by selection practitioners is not only important to those practitioners but also to other groups, such as researchers, test providers, and job applicants. Consistent with previous research (e.g., Mann & Chowhan, 2011; Rowe et al., 1994; Ryan & Sackett, 1987), the interview was very common (although the interview appeared to be more universal in Germany compared with both Canada and the US). It was not known whether the interviews being used were structured or unstructured; however, because of the prevalence of the interview as well as the extant research suggesting that interviews with more structure have higher criterion-related validity (e.g., Schmidt & Hunter, 1998), organizations using interviews should ensure that they are of the fully structured variety.

Analysis of résumés/CVs/cover letters was also common across all three countries although they were being used less often in the US compared with Canada and Ger-

⁷ It was reasonable to combine the data here as a MANOVA collapsing across all of the personality test preference questions indicated that there was an insignificant difference in personality test preferences based on whether participants were currently working in Canada or the US, $F(15, 436) = .81, p = .67$, Wilk's $\Lambda = 0.973$, partial $\eta^2 = .03$.

TABLE 3.

Personality Test Preferences in the Canada and US Sample

Anchor 1	Anchor 2	<i>M</i> (<i>SD</i>)	Lower 95% CI	Upper 95% CI	Significant difference from the scale midpoint
Test properties and how results are presented					
... a narrative report	... a number-based profile	3.42 (1.60)	3.27	3.57	No, <i>d</i> = .05
... a representation of the measured traits on a scale (e.g., 0 – 100)	... the transformation of the measured traits to personality types	3.65 (1.43)	3.52	3.79	Yes $t(452) = 2.29$ ($p = .023$), $d = .10$
... the aggregation of the result to a single comparable value	... the presentation of the result in several comparable facets	4.21 (1.29)	4.09	4.33	Yes $t(452) = 11.75$ ($p < .001$), $d = .55$
... a theory-based development of the measured traits	... a statistical development of the measured traits	3.87 (1.41)	3.74	4.00	Yes $t(452) = 5.61$ ($p < .001$), $d = .26$
How the test is administered					
... an independent evaluation	... an evaluation by the provider	3.21 (1.65)	3.06	3.37	Yes $t(452) = -3.68$ ($p < .001$), $d = .18$
... a computer-based test	... a pencil and paper test	2.96 (1.62)	2.81	3.11	Yes $t(452) = -7.10$ ($p < .001$), $d = .33$
... a test taken remotely	... a test taken on-site	4.08 (1.68)	3.93	4.24	Yes $t(452) = 7.39$ ($p < .001$), $d = .35$
... a test for which I need a certification	... a test for which I do not need a certification	3.79 (1.60)	3.65	3.94	Yes $t(452) = 3.93$ ($p < .001$), $d = .18$

Note. CI = confidence interval. $N = 453$. d = Cohen's d .

many. The common analysis of résumés/CVs/cover letters may be evidence of a research–practice gap (Rynes, Brown, & Colbert, 2002; Rynes, Colbert, & Brown, 2002) as the validity evidence associated with the type of information typically gleaned from résumés/CVs/cover letters (e.g., experience, education) is usually reported to have much lower validity than an alternative preliminary applicant screening

method: the application form. In the current study, application forms were commonly adopted across Canadian and US organizations, although another application format, biodata/biographical information, was being used by a very small proportion of organizations in Canada and the US. It is likely beneficial that organizations are avoiding biodata as, although oftentimes valid, the personal history-type in-

TABLE 3 (continued).

Anchor 1	Anchor 2	<i>M (SD)</i>	Lower 95% CI	Upper 95% CI	Significant difference from the scale midpoint
How practitioners look for a personality test					
... to search personality test provider websites and flyers	... to search for information via academic journals	3.71 (1.55)	3.56	3.85	Yes $t(452) = 2.83 (p = .005)$, $d = .14$
... tests used by other organizations	... tests that set us apart from other organizations	3.56 (1.54)	3.42	3.70	No, $d = .04$
... to compare many different tests	... to compare only a small selection of tests	3.45 (1.51)	3.32	3.59	No, $d = .03$
The quality of personality tests					
... short statements about the benefits of a test	... detailed reports about the benefits of a test	3.61 (1.59)	3.46	3.76	No, $d = .07$
... to check quality information from other sources	... to trust the information provided by the provider	3.12 (1.55)	2.97	3.26	Yes $t(452) = -5.27 (p < .001)$, $d = .25$
... extensive information on quality criteria	...concise statements about quality criteria	3.82 (1.50)	3.68	3.96	Yes $t(451) = 4.52 (p < .001)$, $d = .21$
... a theoretical explanation of the relationship between the measured traits and jobs	... a statistical representation of the relationship between measured traits and jobs	3.88 (1.51)	3.74	4.02	Yes $t(452) = 5.36 (p < .001)$, $d = .25$

Note. CI = confidence interval. $N = 453$. d = Cohen's d .

formation that is at times requested on these forms may be perceived as invasive (Mael, Connerley, & Morath, 1996) and may be in violation of human rights legislation in many developed countries. For example, questions regarding religion, sexual orientation, marital status, and family status are prohibited grounds and cannot be used in selection decisions in any Canadian jurisdiction (Canadian Human Rights Commission, 2019). Although these are more ex-

treme examples of the types of biodata questions that can lead to litigation issues for organizations, even less extreme examples, such as questions regarding net worth, credit, social endeavors, and hobbies may not be job related and may cause negative reactions among applicants.

Reference checking (contacting references provided by the applicant) was the other most common selection tool being used in Canada and the US (although its use was

higher in Canada than the US). Reference checks are helpful for employers to include not only because of their validity (e.g., Schmidt & Hunter, 1998) but also because their inclusion in a selection process will help organizations avoid litigation associated with negligent hiring (Ryan & Lasek, 1991). Background checking (conducted by a third party) was also somewhat commonly used in Canada and the US, and would also likely help with companies avoiding claims of negligent hiring.

Regarding the least common selection tools being used in all three countries, it was disappointing to see how few organizations were taking advantage of general mental ability/IQ testing, which is a highly valid (Schmidt & Hunter, 1998) and low-cost selection tool (Ryan & Tippins, 2004). Conversely, it was encouraging to see that selection tools with no validity, such as graphological assessments (i.e., handwriting analysis; Schmidt & Hunter, 1998) were uncommon in all three countries.

Regarding our second research question, although personality tests are being used infrequently (especially in Canada and the US), it does appear that practitioners, both actual personality test users and nonusers, see at least some usefulness for personality testing. Although there were no significant differences between actual test users, respondents overall (both test users and nonusers) from Canada and the US viewed personality testing for team building activities as more useful compared with respondents from Germany. For nonusers, respondents from Canada and the US, in general, felt that personality testing was more useful compared with respondents from Germany. Thus, in general it appears that there is an opportunity to inform HR practitioners about the potential benefits of using personality testing; especially for particular groups, such as nonusers in Germany.

Regarding our third research question, researchers will be disappointed to see the preference of the HR practitioners surveyed in the current study for personality types (as opposed to traits), which is inconsistent with the convincing evidence in favor of the structure of trait-based personality assessments (e.g., Digman, 1990). Interestingly, practitioners claimed that when they look for a personality test, they have a preference for searching for information in academic journals (as opposed to personality test provider websites and flyers); however, in light of some of the other responses (e.g., the preference for personality types as opposed to traits), it appears that these HR practitioners are either misinterpreting the academic research literature or do not believe the evidence they are reading in academic journals (Rynes, Colbert, & O'Boyle, 2018). This of course assumes that HR practitioners are able to differentiate between traditional academic journals and nonacademic sources, such as trade magazines. It is also possible that HR practitioners were engaging in socially desirable responding

by claiming that they search for information in academic journals. Other possibilities for HR practitioners not implementing evidence-based practices might be unfavorable attitudes toward the value of evidence-based management, their low power positions in relation to management, their low perceptions of control, or management's negativity regarding evidence-based management (Gill, 2018).

Practical Implications

For practitioners, there certainly appears to be an opportunity to better utilize valid selection tools that are currently being underutilized. Specifically, using job-related work samples, general mental ability tests, personality tests, and integrity tests would likely be helpful for gaining a competitive advantage over competitors who are not using these objective, reliable, and valid selection tools.

For personality test providers, it was reassuring that the respondents generally viewed personality testing as useful for various purposes. For example, it appeared that personality testing was viewed as especially useful for management employee selection (in all three countries studied) and for team building activities (in the Canada/US data). The data presented in Table 3 can be used by publishers to further customize offerings that will be more consistent with potential customer preferences, for example, focusing on a statistical representation of the relationship between measured traits and jobs while ensuring that any information regarding the quality of the test is presented in a concise manner.

For researchers, it appears that there is still a rather large disconnect between the selection research literature and the behaviors and beliefs of practitioners as evidenced by the underutilization of psychometrically sound selection tools as well as practitioner beliefs that are inconsistent with the literature (e.g., the preference for personality types over traits). Future research endeavors should strive to find ways of finally making progress toward redressing this research-practice gap. It will also be of interest to researchers that many of the methods that are most commonly studied in the selection literature (e.g., general mental ability tests, personality tests) are not being highly utilized by practitioners; perhaps future research efforts should be directed more so toward the selection methods that are being more commonly utilized by practitioners (e.g., analysis of résumés/CVs/cover letters, reference checks). Résumé screening seems to be one particularly promising area of research as a recent review and research agenda has been put forth by Derous and Ryan (2019). Last, hopefully researchers will use the data provided here as a baseline record of the use of selection tools and that similar efforts will be conducted on an ongoing basis so as to identify how selection tool use is changing and if progress is being made toward redressing the research-practice gap.

Potential Limitations

First, we acknowledge that the differences observed for our first research question may have been due to sampling differences between our sample and the sample collected by [Diekmann and König \(2015\)](#); although both data collections used a similar questionnaire, the sampling methodologies between the two data collections differed. An additional potential issue is the relatively low sample size of actual personality test users, which did not allow us to draw any definitive conclusions regarding the actual types of personality questionnaires being employed by practitioners. Although a representative sample of HR professionals was surveyed across Canada and the US, subsequent research should strive to determine whether the results of our study related to actual personality test users can be generalized within and between countries.

Although our study includes data from Canada, which has often been missing from other selection tool use endeavors (e.g., [Ryan et al., 2015](#)), we did not survey respondents from the French-speaking, Canadian province of Quebec, and this may have impacted the representativeness of our Canadian data. Considering the finding that French-speaking countries and regions have different test use practices than Anglo-Saxon countries and regions (e.g., [Steiner, 2012](#)), it would be helpful for future research endeavors to assess whether there are any selection tool use differences between Quebec and the rest of Canada. Related to this point, [Steiner \(2012\)](#) also provided evidence of the prevalence of graphology in French-speaking countries and regions; thus, the low prevalence of graphology reported in the current study might be an underestimation of its actual use in Canada considering the exclusion of Quebec from the sample.

Last, we acknowledge that many of our survey items were single-item measures, which are not ideal for conducting organizational research. Thus, future research endeavors might want to create multi-item measures of selection tool use and practitioner beliefs and preferences regarding personality testing so that the psychometric properties of these scales can be properly assessed. To complement improved quantitative efforts, it would also be interesting to conduct interviews with HR practitioners in order to gain additional insight into their usage of selection tools.

Conclusion

In this paper we have provided a set of analyses regarding the use of selection tools from a geographically representative sample of HR practitioners across Canada and the US; these results were also compared with data previously collected in Germany. A specific focus on personality testing was also investigated. It will be of particular interest to both researchers and practitioners that some of the selection tools that are not commonly being used are some

of the selection tools with favorable validity (e.g., general mental ability testing, personality testing). It will also be of interest that there is a preference for sorting test takers into personality types even though the literature has provided more compelling evidence in favor of the use of personality traits. Unfortunately, it appears that a research–practice gap is still prevalent in terms of personnel selection practices, but this also means that there is a competitive advantage available to organizations that choose to utilize the selection tools and methods that are best supported by the research literature.

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