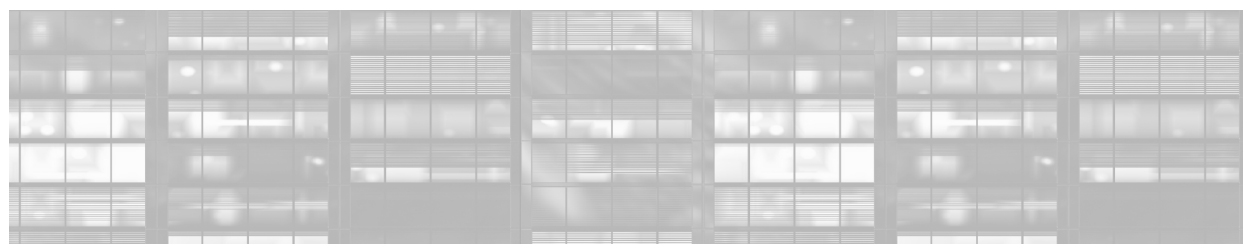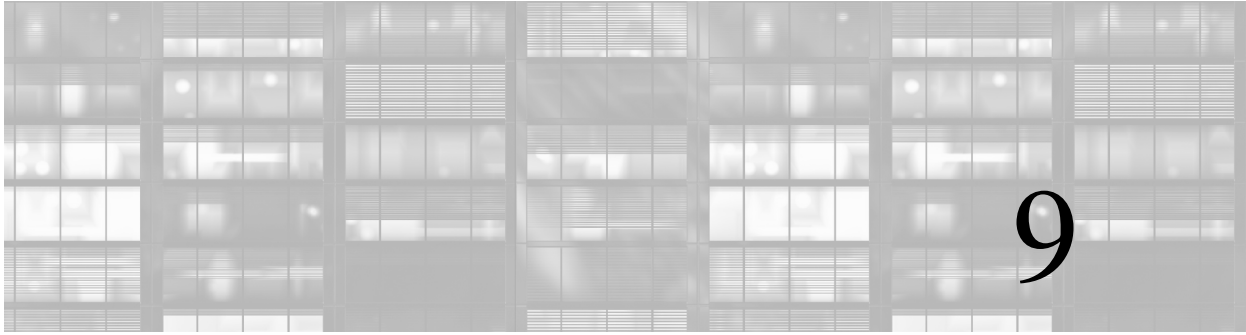PART II

Fundamentals of Human Resource Management

9

Recruitment and Selection

Filip Lievens and Derek Chapman

RECRUITMENT AND SELECTION

Few people question that recruitment and selection are key strategic domains in HRM. At the same time, recruitment and selection also have an image problem. First, recruitment and selection are often viewed as 'old' ingrained HRM domains. It seems like the traditional recruitment and selection procedures have been around for decades, which is at odds with the ever changing internal and external environment of organizations. Hence, practitioners often wonder whether there are any new research-based ways for recruiting and selecting personnel. Another image problem for recruitment and selection is that a false dichotomy is often created between so-called macro HR (examining HR systems more broadly) and micro HR (examining individual differences). It is further sometimes argued that organizations should value macro approaches and write off micro approaches as not being relevant to the business world. We posit that these image problems and debates only serve to distract and fracture the field and hide the fact that excellent HR research and practice needs to take both macro and micro issues

into consideration. For example, creating an effective recruiting strategy (some would describe this as a macro process) requires considerable understanding of the decision making processes of potential applicants (viewed as micro processes). The same can be said with respect to designing effective selection systems, etc.

The challenge for many researchers then has been to demonstrate how scientifically derived recruiting and selection practices add value to organizations. Unfortunately, when the quality and impact of recruitment and selection procedures for business outcomes are investigated, they are often described in rather simplistic terms. For example, in large-scale HR surveys (e.g., Becker and Huselid, 1998; Huselid, 1995; Wright et al., 2001; 2005) 'sound' selection practice is often equated with whether or not formal tests were administered or whether or not structured interviews were used. Similarly, effective recruitment is associated with the number of qualified applicants for positions most frequently hired by the firm. Although such questions tackle important aspects of recruitment and selection we also feel that such descriptions do not capture

the sophisticated level that recruitment and selection research and practice has attained in recent years. This oversimplification in large-scale HR surveys is understandable due to the difficulty of getting usable survey data across a diverse set of companies. However, the goal of demonstrating the utility of recruiting and selection systems may be undermined by this practice and risks setting the field back if the results are interpreted out of context.

In light of these issues, the aim of this chapter is to highlight key new research developments in recruitment and selection. The general theme of this chapter is: 'Which new research developments in recruitment and selection have occurred that advance recruitment and selection practice?' In terms of time period, our review primarily focuses on developments between 2000 and 2007. Given the huge volume of work published during this time frame we do not aim to be exhaustive. Instead, we aim to cover broad themes and trends that in our opinion have changed the field.

OVERVIEW OF KEY RESEARCH FINDINGS IN PERSONNEL RECRUITMENT

In this section, we review recent developments in the field of recruiting since 2000. For an excellent and comprehensive review of earlier recruiting research, we recommend Barber (1998) or Breaugh and Starke (2000). Tight labor markets in North America have helped fuel interest in recruiting research and considerable progress has been made in the recruiting field over the past seven years. As noted above, we especially focus on research that has practical implications for organizations.

The impact of technology on recruiting

Organizations have had to adjust to the new reality of online recruiting. These technologies have created both problems and opportunities for organizations. Organizations can significantly reduce costs to advertise positions by using third party job boards (e.g., Monster.com) or through company websites. The inexpensive nature of online recruiting permits the conveyance of large amounts of information to potential applicants at a minimal cost relative to traditional advertising venues such as newspapers. Media content can be substantially richer including graphics, photos, interactive text, and video (Allen et al., 2004). The potential also exists for the immediate tailoring of recruiting information to target the needs of prospective applicants (e.g., Dineen et al., 2002; 2007). For example, after completing a needs questionnaire online, a prospective applicant could conceivably be provided with targeted information about the organization, its benefit programs, and opportunities that addresses their individual needs. Along these lines, Dineen et al. (2007) discovered that customized information about likely fit (combined with good web aesthetics) decreased viewing time and recall of low-fitting individuals, suggesting a means to avoid these individuals of being attracted to the organization. Clearly, customized real-time recruiting approaches are within the realm of existing technologies.

Despite the benefits and efficiencies of online recruiting, a downside is that many employers complain about the flood of unqualified applicants that can result from online advertising (Chapman and Webster, 2003). This deluge of applicants can inflict considerable costs on the organization if the online recruiting process is not accompanied by an effective and efficient screening technology. The importance of integrating efficient screening tools and online recruitment needs to be emphasized to a greater extent in HR practice.

Researchers have also begun to focus more specifically on what makes an effective company website for recruiting purposes (e.g., Cober et al., 2004; 2003; Lee, 2005). Specifically, these authors suggest that web site content (e.g. cultural

information), appearance (e.g., use of colors and pictures) and navigability (e.g. links to job applications and useable layout) are all important for recruiting purposes. Cober et al. (2003) found that perceptions of the website aesthetics and usability accounted for 33 per cent of the variance in pursuit intentions and 31 per cent of the variance in recommendation intentions. Clearly, investing resources in web site aesthetics such as the use of pleasing colors, pictures of smiling employees, and easy to navigate functions such as direct links to application forms can have appreciable benefits for recruiting. A study of Williamson et al. (2003) provided another practically important finding. They discovered that setting up a recruiting-oriented web site (instead of a screening-oriented web site) was associated with significantly higher attraction by prospective applicants.

Applicant quality as recruiting outcome

Traditional recruiting outcomes have been categorized into four major constructs: Job pursuit intentions, organizational attraction, acceptance intentions, and job choice (Chapman et al., 2005). Breaugh and Starke (2000) presented a large number of potential organizational goals that recruiters could strive to reach from shortening recruiting processing to reducing turnover. More research is emerging on these additional outcomes. For example, although recruiters have always been concerned about the quality of applicants attracted, few researchers have focused on this area. This area has perhaps become more popular recently due to the concerns about online applicant quality noted in the technology section. Specifically, Carlson et al. (2002) argued that assessing the quality of the applicants attracted is a useful tool in assessing the overall utility of the recruiting/selection system. To this end, they provided a useful assessment framework. This outcome has become an important focus of recruiting research (e.g., Collins and Han, 2004; Turban and Cable, 2003).

The renewed importance of the recruiter

A longstanding debate in the recruitment field has examined the role that recruiters play in influencing applicant decisions. Earlier work suggested that recruiters play either no role or a minor one in determining applicant decisions. However, research since 2000 has confirmed that recruiters in fact, do play a significant role in applicant job choice (Chapman et al., 2005). In their meta-analytic review, Chapman et al. tested several models to account for how recruiters influence job choice. Their best fitting model involved job and organizational characteristics as mediators of recruiter influence on attraction and job choice. In other words, recruiters appear to influence job choices by changing applicant perceptions of job and organizational characteristics. Even more importantly, this influence was most pronounced for the best candidates-those with multiple job offers (Chapman and Webster, 2006).

Ironically, there is little guidance in the selection literature regarding how to identify and select individuals well suited for recruiting. Early studies showed that applicants pay attention to and are positively influenced by recruiter behaviors such as being informative and expressing warmth (Chapman et al., 2005) but we know little about individual differences that may be associated with recruiting success. A recent meta analysis demonstrated that simple demographic factors (e.g., recruiter sex or race) are not good predictors (Chapman et al., 2005). However, there are potentially many more individual differences such as personality traits and cognitive ability that may predict recruiting outcomes. We believe that more work on individual differences in recruiting success is critical.

Despite the growing role of technology in the recruiting process, most employers and applicants continue to value an opportunity for face-to-face interaction at some point in the recruitment process. Employers who implement effective technology-based screening practices find that their recruiters are freed

up from the manual sorting of resumes in order to spend more 'face time' with qualified candidates. Interestingly, this is the opposite of what most employers fear when they consider implementing online recruiting and screening processes. Rather than becoming cold, sterile places, they actually have more time to interact with their top prospects to connote empathy and warmth; exactly the recruiter traits most associated with applicant attraction (Chapman et al., 2005).

Organizational image and employer branding

It is clear that applicants consider the image of an organization as an important factor for evaluating employers. Chapman et al.'s (2005) meta-analysis on organizational image in recruiting found a corrected mean correlation of 0.50 between image and job pursuit intentions, 0.40 for attraction, and 0.41 for acceptance intentions.

In recent years, a lot of work has emerged on how applicants form images of organizations. One simple mechanism appears to be familiarity. Applicants are generally more attracted to companies that have name or brand recognition (Cable and Graham, 2000; Cable and Turban, 2001; Collins and Stevens, 2002; Turban, 2001), although it should be acknowledged that being familiar and having initially negative views of the organization can have deleterious effects on recruiting outcomes (Brooks et al., 2003). Efforts then to invest in becoming more recognized within a targeted applicant population are generally likely to prove useful for organizations. For example, for organizations who recruit primarily on university campuses, sponsoring events attended by students and advertising broadly within the campus community should increase both familiarity and attraction.

Beyond brand recognition, Lievens and Highhouse (2003) suggest that in forming images of organization individuals draw symbolic associations between the organization and themselves. This anthropomorphic approach to conceptualizing organizational

image demonstrated that applicants ascribe human personality traits such as sincerity, excitement, competence, sophistication, and ruggedness to organizations (Aaker, 1997; Lievens and Highhouse, 2003). In general, people seem to be more attracted to organizations whose traits and characteristics are perceived to be similar to their own (e.g., Slaughter et al., 2004).

Another approach to organizational image has focused on the issue of corporate social responsibility (CSR), also termed corporate social performance (CSP). Applicants have been shown to take note of CSR information such as an organization's environmental practices, community relations, sponsorship activities, and treatment of women and minorities (e.g., Aiman-Smith et al., 2001; Backhaus et al., 2002; Turban and Greening, 1997). For instance, Greening and Turban (2000) found that organizational CSP appears to influence the attractiveness of a company to applicants, such that all four of the CSP dimensions were significantly related to job pursuit intentions and the probability of accepting both an interview and a job. Aiman-Smith et al. (2001) conducted a policy-capturing study and found that a company's ecological rating was the strongest predictor of organizational attraction, over and above pay and promotional opportunities. These authors and others (see Greening and Turban, 2000; Turban and Cable, 2003; Turban and Greening, 1997) suggest that attraction stems from interpreting company image information as a signal of working conditions – a proxy of 'organizational values' – and applicants develop an affective reaction to these signals which may manifest in being attracted to that organization.

At a practical level, this increased research interest in organizational image is paralleled by the approach of employer branding (Avery and McKay, 2006; Backhaus and Tikoo, 2004; Cable and Aiman-Smith, 2000; Cable and Turban, 2003; Lievens, 2007a). Employer branding or employer brand management involves promoting, both within and outside the firm, a clear view of what makes a firm different and desirable as an employer.

According to Backhaus and Tikoo (2004), employer branding is essentially a three-step process. First, a firm develops a concept of what particular value ('brand equity') it offers to prospective and current employees. The second step consists of externally marketing this value proposition to attract the targeted applicant population. To this end, early recruitment practices have been found to be particularly useful (Collins and Stevens, 2002). The third step of employer branding involves carrying the brand 'promise' made to recruits into the firm and incorporating it as part of the organizational culture. Recent evidence has shown that a strong employer brand positively affected the pride that individuals expected from organizational membership (Cable and Turban, 2003), applicant pool quantity and quality (Collins and Han, 2004), and firm performance advantages over the broad market (Fulmer et al., 2003).

Addressing aging populations

Whereas traditional recruiting research has predominantly examined attracting young employees from universities and colleges, looming demographic realities involving a major shift in the age of employees are forcing employers and researchers to learn more about attracting and retaining older workers. Information about attracting older workers has just recently begun to emerge. For example, Rau and Adams (2004) examined the growing area of 'bridge employment' whereby older workers seek out a semi-retirement opportunity. This typically involves part-time employment that can serve to supplement retirement income as well as serve to fill a variety of social and esteem needs in older workers. Emphasizing equal opportunity for older workers, flexible schedules, and pro older worker policies have been shown to interact to improve attraction of older workers (Rau and Adams, 2005). Other suggestions for appealing to older workers include flexible compensation and benefits programs, and job redesign to accommodate and appeal

to older workers (Hedge et al., 2006). Clearly, more empirical data are needed to test many of the ideas posited for attracting older workers.

Attracting temporary workers

One response to staffing highly volatile work demands has been to rely more heavily on temporary workers, interns, and employment agency employees. This approach represents a significant recruiting challenge as employers often offer lower pay, few benefits, and little training to these temporary workers as compared to core employees. There has been little empirical work examining the attraction of temporary employees, however, research conducted on cooperative education programs show that temporary employees tend to be attracted to many of the same organizational and job characteristics as full time employees. Therefore, employers offering better pay, prestige, locations, and opportunities for advancement are likely to be more successful in attracting temporary employees. As many of these employees use internships and temporary work as a stepping stone to full-time employment, employers would benefit considerably from considering their temporary hires as a potential full-time talent pool and treat them accordingly.

Applicant reactions to selection procedures

Although recruitment and selection are often viewed as separate processes, recent studies are increasingly showing that the two processes have considerable interactive effects. Negative reactions to selection procedures have been shown to correlate with attraction, intent to pursue, job recommendations, and intentions to accept a job offer (see meta-analysis of Hausknecht et al., 2004). Applicant reactions are a complex phenomenon. For instance many researchers have emphasized the perceptions of injustice as the primary outcome of applicant reactions (e.g., Gilliland, 1993; Bauer et al., 2001), whereas others have called for more behavioral outcomes

such as effects on attraction and job choice (e.g., Chapman and Webster, 2006; Ryan and Ployhart, 2000). What is well established is that applicants make inferences about organizations based on how they are treated during the selection process. In turn, these inferences might influence how attracted they are to the organization. In designing selection procedures, HR managers should balance their recruiting and selection needs and pay attention to the potential effects that their selection practices can have on applicant attraction and job choice.

DIRECTIONS FOR FUTURE RESEARCH ON PERSONNEL RECRUITMENT

Emphasizing proactive approaches

Unlike selection research which has a rich history of exploring very practical approaches to personnel selection, recruiting research has tended to focus on more distal predictor-attraction relationships. For example, we still lack simple descriptive information on the specific recruiting tactics used by employers. As a result, there is a dearth of research examining the effectiveness of particular recruiting tactics and strategies. The growing body of research on decision processes should help recruiting researchers make informed predictions about the likely success of these specific tactics and provide potential moderators of these approaches. Likewise, incorporating and refining theories of persuasion from social psychology in the recruiting context should provide a rich source of predictions about the crafting of recruitment messages. For instance, studies incorporating the Elaboration Likelihood Model (ELM) can tell us how to craft recruitment messages that are effective for busy job fairs or for quiet deliberation of information from a web page (e.g., Jones et al., 2006; Larsen and Philips, 2002).

Another example of such a proactive recruiting approach might consist of organizations seeking to maximize fit perceptions in order to enhance attraction. For example,

through online assessments it may be possible to identify that an applicant has higher potential person-job fit than person-organization fit. As a result, a proactive recruiting approach would be to emphasize the benefits for person-job fit for that individual throughout the recruiting process. This might involve presenting more detailed information to that individual on job characteristics, tasks, roles, etc. The aforementioned studies of Dineen and colleagues exemplify how such a proactive and customized fit approach might be accomplished in early (web-based) recruitment stages. These studies also go beyond the notion of fit as being a natural process whereby applicants self-select into organizations.

Demonstrating value to organizations

To date, recruiting researchers have largely had to rely on logical arguments to demonstrate the value of recruiting to organizations. For example, utility analyses can demonstrate the theoretical return to the company of employing an effective recruiting system over a weak recruiting system (e.g., Boudreau and Rynes, 1985). We can also argue that effective recruiting is necessary in order to generate the types of selection ratios needed to make our selection systems more effective (Murphy, 1986). However, we believe that the time has come for recruiting researchers to capture organizational level outcomes such as firm performance, organizational training costs, and turnover expenditures to more directly demonstrate the utility of recruiting practice in organizations. Along these lines, Breaugh and Starke (2000) provided a comprehensive framework for examining the types of recruiting goals that organizations can align with their overall corporate strategies. For example, as a cost-reduction strategy HR departments could design recruiting practices aimed at attracting experienced employees who need little training, thereby saving training costs. Alternatively, a company emphasizing success through teamwork would benefit from recruiting practices that attracted individuals who are comfortable and motivated

in team environments. Recruiting materials then would display photos of employees engaged in team-based tasks, advertising outlets could include publications that attract a team focused audience, and benefits and rewards should emphasize rewards for team performance. Other demonstrations of value to organizations can be seen in an exemplar paper by Highhouse et al. (1999) which showed how recruiting image information (i.e., an image audit) can be applied to real world recruiting issues (in this case, the fast food industry). Understanding how your organization is viewed by potential employees is a first and necessary step toward determining recruiting strategy. Generating effective strategies to address these images (such as hiring popular students to work in your fast food restaurant in order to attract more students), can flow from studying these issues empirically.

Disentangling content from method

In order to better determine recruiting effects, researchers are urged to design multiple manipulations for various recruiting tactics. Too frequently, recruiting researchers have single manipulations of information which makes it difficult to determine whether the approach to recruiting is driving any observed differences or whether the content of the single manipulation is causing the effects. For example, in designing a study examining the role of a recruiting tactic such as comparing the job opening to a competitor's offering versus a tactic involving simply providing additional information about the company, researchers should endeavor to provide several examples of each manipulation so that the content of the manipulation is not confounded with the tactic. Accordingly, we can gauge the relative effects of the recruiting tactics independent of the job and organizational content used in the manipulation.

Focusing on job choice

We know a lot less about behavioral outcomes such as actual job choice than we do about attitudinal outcomes such as attraction, job pursuit intentions, and job acceptance intentions. What is clear from the few studies examining actual job choice is that our traditional recruiting predictors are much weaker in their predictions of behaviors then they are of their predictions of attitudes. We need to pay more attention to multiple outcomes, longitudinal outcomes and behavioral outcomes if we are to provide organizations with information that will be practical.

OVERVIEW OF KEY RESEARCH FINDINGS IN PERSONNEL SELECTION

In this section, we review recent developments with regard to personnel selection. Due to space constraints, we refer readers to Schmidt and Hunter (1998) and Hough and Oswald (2000) for excellent overviews of the state-of-the art of personnel selection until 2000. Note too that this section deals only with developments with respect to predictors (although we acknowledge there have also been substantial developments in the criterion domain).

Rapid technological developments in personnel selection

In the last decade, the face of personnel selection has changed substantially due to the increased use of information technology (the internet) for administering, delivering, and scoring tests (Chapman and Webster, 2003). Actually, use of the internet in selection is nowadays a necessity for firms to stay competitive. The efficiency and consistency of test delivery are some of the key benefits of internet-based selection over computerized selection. Extra cost and time savings occur because neither the employer nor the applicants have to be present at the same location.

The good news is that research generally lends support to the use of the internet as a way of delivering tests. Both between-subjects (Ployhart et al., 2003) and within-subjects studies (Potosky and Bobko, 2004)

have provided evidence for the equivalence of internet-based testing vis-à-vis paper-and-pencil testing. For example, Potosky and Bobko (2004) found acceptable cross-mode correlations for noncognitive tests. Timed tests, however, were an exception. For instance, cross-mode equivalence of a timed spatial reasoning test was as low as 0.44 (although there were only 30 minutes between the two administrations). As a main explanation, the loading speed inherent in internet based testing seems to make the test different from its paper-and-pencil counterpart (Potosky and Bobko, 2004; Richman et al., 1999).

Research with regard to transforming face-to-face interviews to videoconferencing interviews reveals a more mixed picture. While considerable cost savings are realized from using these technologies, ratings have been shown to be affected by the media used (e.g., Chapman and Rowe, 2001; Chapman and Webster, 2001). The increased efficiency of technology mediated interviews (e.g., videoconferencing interviews, telephone interviews, interactive voice response telephone interviews) seems also to lead to potential downsides (e.g., less favorable reactions, loss of potential applicants) as compared to face-to-face interviews, although it should be mentioned that actual job pursuit behavior was not examined (Chapman et al., 2003).

One of the more controversial technological developments relates to unproctored internet testing. In this type of testing, a test administrator is absent. Accordingly, unproctored internet testing might lead to candidate authentication, cheating, and test security concerns. To date, there seems to be relative consensus that unproctored testing is best suited for low-stakes selection (Tippins et al., 2006). As a possible solution, some organizations have moved toward a two-tiered approach whereby unproctored internet-based tests are administered for screening purposes only, followed by on site proctored administration of a parallel test for those passing the online version. Sophisticated verification procedures are then used to examine whether the same person completed both tests, or alternatively, only the proctorered test is used for final hiring decisions. Other organizations combine this two-tiered approach with item response and item generation techniques so that candidates seldom receive the same test items. This requires considerable sophistication as large databases of questions must be generated and the difficulty level of each item must be determined to ensure parallel tests are generated each time. Once constructed, however, the organization can reap the benefits of unproctored testing and extend the life of the system by making fraudulent activity less damaging.

The growing international face of personnel selection

The face of personnel selection has changed not only due to rapid technological developments. The globalization of the economy has also considerably affected personnel selection practice and research. This internationalization causes organizations to move beyond national borders, as reflected in international collaborations, joint ventures, strategic alliances, mergers, and acquisitions. One well-known HR consequence of this rapid internationalization is the need to develop selection procedures that can be validly used to predict expatriate success. Research has a long history here (going back to the Peace Corps studies). One of the problems is that the selection of people for foreign assignments has traditionally been based solely on job knowledge and technical competence (Schmitt and Chan, 1998; Sinangil and Ones, 2001). However, a recent meta-analysis of predictors of expatriate success (Mol et al., 2005) revealed that there are many more possibilities. In this meta-analysis, four of the Big Five personality factors (extraversion, emotional stability, agreeableness, and conscientiousness), cultural sensitivity, and local language ability were predictive of expatriate job performance. A problem with the large body of research on predictors of expatriate success is that research has mainly tried to determine a list of (inter)personal

factors responsible for expatriate adjustment versus failure (e.g., Mendenhall and Oddou, 1985; Ones and Viswesvaran, 1997; Ronen 1989). Unfortunately, there is little research on designing a comprehensive selection system to predict expatriate success in overseas assignments.

Another consequence of the increasing internationalization is the need for selection systems that can be used across multiple countries while at the same time recognizing local particularities (Schuler et al., 1993). This is not straightforward as differences across countries in selection procedure usage are substantial. This was confirmed by a 20-country study of Ryan et al. (1999). Apart from country differences, differences grounded in cultural values (uncertainty avoidance and power distance) also explained some of the variability in selection usage. Another large-scale study showed that countries differed considerably in how they valued specific characteristics to be used in selection (Huo et al., 2002; Von Glinow et al., 2002). Countries such as Australia, Canada, Germany, and the US assigned great importance to proven work experience in a similar job and technical skills for deciding whether someone should have the job. Conversely, companies in Japan, South Korea, and Taiwan placed a relatively low weight on job-related skills. In these countries, people's innate potential and teamwork skills were much more important. We need more studies to unravel factors that might explain differential use of selection practices across countries. In addition, we need to know how one can gain acceptance for specific selection procedures among HR decision makers and candidates. Clearly, this is complicated due to tensions between corporate requirements of streamlined selection practices and local desires of customized ones.

A final pressing issue for organizations that use selection procedures in other cultures deals with knowing whether a specific selection procedure is transportable to another culture and whether the criterion-related validity of the selection procedure is generalizable. So far, there is empirical evidence for validity generalization for cognitive ability

tests (Salgado et al., 2003a; b) and personality inventories (Salgado, 1997) as the criterion-related validity of these two predictors generalized across countries. Research dealing with the criterion-related validity of other selection procedures in an international context is scarce. One exception is a study of Ployhart et al. (2004) who examined whether the criterion-related validity of various predictors (measures of team skills, work ethic, commitment, customer focus, and cognitive ability) differed across 10 countries. They found that criterion-related validity was largely constant across countries and unaffected by culture.

Unfortunately, no studies have examined conditions that predict when the criterion-related validity of selection procedures will generalize across countries. Along these lines, Lievens (2007b) highlighted among others the importance of matching predictor and criteria in an international context. The importance of predictor-criteria matching can be illustrated with assessment center exercises. The dimensions and exercises that are typically used in assessment centers in North America and Europe might be less relevant in other countries. Perhaps, in a high power distance culture, candidates are extremely uncomfortable engaging in role-plays. This does not imply that such exercises will be invalid in these cultures. The question is: Are these exercises indeed relevant for the criterion domain that one tries to predict in these cultures? Empirical research supports this logic. Lievens et al. (2003) examined whether two assessment center exercises were valid predictors of European executives' training performance in Japan. They found that a group discussion exercise was a powerful predictor of future performance as rated by Japanese supervisors later on. The presentation exercise, however, was not a valid predictor. According to Lievens et al. (2003), one explanation is that the group discussion exercise reflected the Japanese team-based decision making culture.

Another hypothesis put forth by Lievens (2007b) is that the predictor constructs

(especially cognitive ability) will often be very similar across cultures, but that the behavioral content and measurement of these predictors will vary across cultures. For example, Schmit et al. (2000) developed a global personality inventory with input from a panel of 70 experts around the world. Although all experts wrote items in their own language for the constructs as defined in their own language, construct validity studies provided support for the same underlying structure of the global personality inventory across countries. This might also mean that ratings in non-personality situations such as assessment centers or interviews might be prone to cultural sensitivity because there is ample evidence that the behavioral expressions and interpretations for common constructs measured might differ from one culture to another. Future research should test these hypotheses about possible moderators of the cross-cultural generalizability of the validity of selection procedures.

Development and validation of new selection procedures

One of the questions at the start of this chapter was whether in recent years new selection predictors have been developed. We believe that three 'relatively' new selection procedures have gained increased interest from researchers and practitioners alike. First, emotional intelligence measures have come under scrutiny in personnel selection. Although the concept of emotional intelligence has fuelled a lot of criticism (Matthews et al., 2004; Landy, 2005), a breakthrough is the division of emotional intelligence measures into either ability or mixed models (Zeidner et al., 2004). The mixed (self-report) model assumes emotional intelligence is akin to a personality trait. A recent meta-analysis showed that emotional intelligence measures based on this mixed model overlapped considerably with personality trait scores but not with cognitive ability (Van Rooy et al., 2005). Conversely, emotional intelligence measures developed according to the ability (emotional intelligence as an ability to perceive emotions

of oneself and of others) model correlated more with cognitive ability and less with personality.

Second, situational judgment tests (SJTs) are another emerging selection procedure. SJTs present applicants with (written or video-based) work-related situations and possible responses to these situations. Applicants have to indicate which response alternative they would choose. Granted, SJTs are not new selection procedures (the first situational judgment tests were already used in the 1930s). Yet, they have recently become increasingly popular in North-America. SJTs are somewhat of a misnomer because they do not measure 'situational judgment'. Instead, SJTs are measurement methods that can measure a variety of constructs. For example, SJTs were recently developed to capture domains as diverse as teamwork knowledge (McClough and Rogelberg, 2003; Morgeson et al., 2005; Stevens and Campion, 1999), aviation pilot judgment (Hunter, 2003), employee integrity (Becker, 2005), call center performance (Konradt et al., 2003), or academic performance (Lievens et al., 2005; Oswald et al., 2004).

One reason for the growing popularity of SJTs is that they enable to broaden the constructs being measured. Research has shown that SJTs had incremental validity over cognitive ability, experience, and personality (Chan and Schmitt, 2002; Clevenger et al., 2001). McDaniel et al. (2001) meta-analyzed 102 validity coefficients (albeit only 6 predictive validity coefficients) and found a mean corrected validity of .34. Another reason is that SJTs can be used to test large groups of applicants at once and over the internet. Finally, research on applicant reactions to SJTs showed that SJTs were perceived as favorable and that video-based interactive SJT formats even resulted in more positive perceptions than written SJT formats (e.g., Chan and Schmitt, 1997; Kanning et al., 2006; Richman-Hirsch et al., 2000). Given these advantages, SJTs constitute an attractive alternative to more expensive predictors such as assessment center exercises or structured interviews

because SJTs can be used in early selection stages as an inexpensive screen for measuring interpersonally-oriented competencies. A possible downside of SJTs is that they might be prone to faking. Along these lines, recent research has shown that the type of response instructions affects the cognitive loading and amount of response distortion in situational judgment tests (Nguyen et al., 2005). Behavioral tendency instructions (e.g., 'What are you most likely to do?') exhibited lower correlations with cognitive ability, lower adverse impact but higher faking than knowledge-based instructions (e.g., 'What is the best answer?'). In addition, a recent meta-analysis of McDaniel et al. (2007) reported that SJTs with knowledge instructions correlated more highly with cognitive ability measures (0.35) than SJTs with behavioural tendency instructions did (0.19). Conversely, SJTs with behavioural tendency instructions correlated more highly with Agreeableness (0.37), Conscientiousness (0.34), and Emotional Stability (0.35) than SJTs with knowledge instructions did (0.19, 0.24, and 0.12, respectively). These results confirm that SJTs with knowledge instructions should be considered maximal performance measures, whereas SJTs with behavioural tendency instructions should be considered typical performance measures.

Third, implicit measures of personality have been developed as a possible alternative to explicit measures of personality (e.g., the typical personality scales). One example of this is Motowidlo et al.'s (2006) measure of implicit trait theories. They theorize, and then offer evidence, that individual personality shapes individual judgments of the effectiveness of behaviors reflecting high to low levels of the trait in question. Thus, it may prove possible to make inferences about personality from individual's judgments of the effectiveness of various behaviors. Another approach to implicit measurement of personality is conditional reasoning (James et al., 2005) based on the notion that people use various justification mechanisms to explain their behavior, and that people with varying dispositional tendencies will employ differing justification mechanisms. The basic paradigm is to present what appear to be logical reasoning problems, in which respondents are asked to select the response that follows most logically from an initial statement. In fact, the alternatives reflect various justification mechanisms. James et al. present validity evidence for a conditional reasoning measure of aggression. Other research found that a conditional reasoning test of aggression could not be faked, provided that the real purpose of the test is not disclosed (LeBreton et al., 2007).

Improvements in existing selection procedures

In recent years, some interesting developments with respect to existing selection procedures have emerged. One development consists of increasing the *contextualization* of sign-based predictors (cognitive ability tests, aptitude tests, and personality inventories). Although contextualization has also been used in aptitude tests (Hattrup et al., 1992), this trend is best exemplified in personality inventories. Contextualized personality inventories use a specific frame-of-reference (e.g., 'I pay attention to details at work') instead of the traditional generic format (e.g., 'I pay attention to details'). Recent studies have generally found considerable support for the use of contextualized personality scales as a way of improving the criterion-related validity of personality scales (Bing et al., 2004; Hunthausen et al., 2003). Yet, some questions remain. For instance, how far does one have to go with contextualizing personality inventories. Granted, adding an at-work tag is only a start to a full contextualization of personality inventories (e.g., 'I pay attention to details when I am planning my meetings with customers.'). In light of the fidelity-bandwidth trade-off, perhaps the answer is related to what one wants to predict. Narrow contextualized scales might be better predictors of narrow criteria, whereas more generic scales might be better predictors for a more general criterion such as job performance.

Another development relates to the increased recognition that practitioners should carefully specify predictor-criterion linkages for increasing the criterion-related validity of selection procedures. As conceptualizations of job performance broaden beyond task performance to include the citizenship and counter productivity domains it is important for organizations to carefully identify the criterion constructs of interest and to choose potential predictors on the basis of hypothesized links to these criterion constructs. All of this fits in a general trend to move away from general discussions of predictors as 'valid' to consideration of 'valid for what?'. This was first exemplified by the taxonomic work on the dimensionality of performance led by Campbell et al. (1993). This project illustrated, for example, that cognitive measures were the most valid predictors of task performance, whereas personality measures were the best predictors of an effort and leadership dimension and a counterproductive behavior dimension (labeled 'maintaining personal discipline'; McHenry *et al.*, 1990). Now, it is generally acknowledged that this mechanism might increase the validity of personality inventories (e.g., Hogan and Holland, 2003 as the best example), assessment centers (Lievens et al., 2003).

Another recent stream of research with considerable value for selection practice is that one should be aware of potential interactions among predictor constructs (competencies). For example, interactions between conscientiousness and agreeableness (Witt et al., 2002), conscientiousness and extraversion (Witt, 2002), and Conscientiousness and social skills (Witt and Ferris, 2003) have been discovered. In all of these cases, high levels of conscientiousness coupled with either low levels of agreeableness, low levels of extraversion, or inadequate social skills were detrimental for performance. At a practical level, these results highlight, for example, that selecting people high in Conscientiousness but low in Agreeableness for jobs that require frequent collaboration reduces validities to zero.

Finally, recent research is also informative as to what interventions not to undertake to increase criterion-related validity. For example, it is often thought that social desirability corrections (e.g., lie scales) should be used when one gathers self-report ratings (e.g., in the context of personality measurement). We have now compelling evidence that social desirability corrections should not be applied. Schmitt and Oswald (2006) showed that correcting applicants' scores had minimal impact on mean criterion performance. The futility of using social desirability corrections was also demonstrated at the individual level (i.e., who gets hired on the basis of applicant rankings, Ellingson et al., 1999). Although it is interesting to know that social desirability corrections are not useful, the question remains as to what practitioners can do when applicants fake (and we know they do). In fact, isn't it awkward that we ask applicants to be honest when responding to self-reports, while we know that this will lower their chances of being selected. Therefore, various faking reduction approaches have been tried out. However, most of them (e.g., warnings, forced choice formats) had only meager effects (Dwight and Donovan, 2003; Heggestadt et al., 2006). One promising approach consists of requiring candidates to elaborate on the ratings provided, although this strategy seems useful only when the items are verifiable (Schmitt and Kunce, 2002; Schmitt et al., 2003). Last, it was discovered that faking does not seem to be a problem when personality inventories are used for selecting out candidates (i.e., a selection process with a high selection ratio, Mueller-Hanson et al., 2003).

DIRECTIONS FOR FUTURE RESEARCH ON PERSONNEL SELECTION

Disentangling content from method

In the past, selection procedures were seen as monolithic entities. Recently, there is increased recognition to make a clear distinction between predictor constructs (content) and predictor measures (methods).

Content refers to the constructs and variables (e.g., conscientiousness, cognitive ability, finger dexterity, field dependence-independence, reaction time, visual attention) that are being measured. Methods refers to the techniques or procedures (e.g., graphology, paper-and-pencil tests, computer-administered tests, video-based tests, interviews, and assessment centers, work samples, self-reports, peer reports) that we use to measure the specified content (Arthur et al., 2003; Chan and Schmitt, 1997; Schmitt and Chan, 1998; Schmitt and Mills, 2001). Crossing these two features leads to different modalities of selection procedures. For example, a specific construct such as extraversion might be measured via various methods such as interview questions, self-report items or situational judgment test items.

This division is of paramount importance because it impacts on virtually all research done on personnel selection procedures. For example, incremental validity research of predictors (e.g., assessment center exercises used in addition to structured interviews and self-report personality inventories) that fail to take this distinction into account are misleading and are conceptually difficult to interpret. Unless one either holds the content (constructs) constant and varies the method, or holds the method constant and varies the content, one does not know what (method or construct) leads to the incremental validity obtained. Another example is research on adverse impact. For example, Chan and Schmitt (1997) showed that changing the method of an SJT (video-based instead of paper-and-pencil) resulted in less adverse impact, even though the content of the test was not changed. Likewise, in applicant reactions research it is important to know whether applicants perceive a test favorably or unfavorably because of the content of the test or because of the method of measuring the substantive content (Hausknecht et al., 2004).

Going beyond validity

Prior selection research has usually taken a micro analytical perspective. That is, the effectiveness of a selection procedure was examined for predicting individual performance. Several authors (Ployhart, 2006; Schneider et al., 2000; Schmitt, 2002) have argued that future selection research should take a more macro analytical approach to exert a real impact on organizations and organizational decision makers. This implies that the consequences of using specific selection procedures should also be ascertained at levels other than the individual level. Examples are the team, job (occupational), and organizational level.

To date, only a very limited number of studies have taken such an organizational perspective. For instance, Terpstra and Rozell (1993) correlated HR managers' use of selection procedures with performance of the firm. As argued by Ployhart (2006), this is only a first step as this study was based on self-reports of firm performance. In a similar vein, the well-known study of Huselid (1995) demonstrates that use of high performance work practices (e.g., Do companies use employment tests prior to hiring?) are related to better firm performance. Yet, they do not show that selecting better employees adds strategic value to the firm.

Future research should use a truly multilevel perspective to demonstrate whether validities at the individual level also translate into differences at other levels (and especially at the organizational level). An excellent example is the recent study of Ployhart et al. (2006). They showed that individual, job, and organizational level means personality were positively associated with job performance and job satisfaction, whereas job and organizational level variances were often negatively associated with performance and satisfaction. These results highlight the importance of personality homogeneity at different levels (cf. attraction-selection-attrition framework).

'Selling' selection innovations

At the start, we mentioned that personnel selection is typically viewed as an 'old' and 'narrow' domain in HRM. In addition,

it is often viewed in rather simplistic dichotomous terms. One of the aims of our review was to illustrate the various exciting developments that have taken place in this field in recent years. As demonstrated, many of these developments have substantial value for HR practitioners working in organizations. However, this is only side of the equation. An equally vital issue is to implement these developments in organizations. One stumbling block is the lack of awareness of these new trends. For example, it was telling that a recent survey revealed among HR professionals that two of the greatest misconceptions among these professionals dealt with personnel selection, namely the relative validity of general mental ability tests as compared to personality inventories (Rynes et al., 2002).

Therefore, future research is needed to uncover factors that encourage/impede organizations' use of selection procedures. For example, a recent study (Wilk and Cappelli, 2003) showed that (apart from broader legal, economic, and political factors) the type of work practices of organizations was one of the factors that might encourage/impede organizations' use of selection procedures. Specifically, organizations seem to use different types of selection methods contingent upon the nature of the work being done (skill requirements), training, and pay level.

In a similar vein, we need to find out ways to sell selection practices to practitioners and to overcome potential resistance (Muchinsky, 2004). Probably, the provision of information about the psychometric quality and legal defensibility of selection procedures to decision makers in organizations is insufficient. An alternative might consist of linking the adoption of sound selection practices not only to validity criteria but also to organizational-level measures of performance such as annual profits, sales, or turnover (see the section 'Going Beyond the Validity of Selection Procedures'). Another way might be to use more vivid information (case studies) to persuade decision makers. However, even this way of communicating

selection interventions to practitioners might fail. Along these lines, Johns (1993) posits that we have typically placed too much emphasis on selection practices as *rational technical* interventions and therefore often fail to have an impact in organizations (e.g., attempts to 'sell' utility information or structured interviews). Conversely, practitioners in organizations perceive the introduction of new selection procedures as organizational interventions that are subject to the same pressures (power games, etc.) as other organizational innovations. Although Johns' article dates from 1993, we still have largely neglected to implement its underlying recommendations.

One possible approach to improving the use of scientifically validated recruiting and selection procedures is through the increasing professionalization of the field of HR. As more organizations insist on hiring HR personnel with professional training and credentials, the greater the likelihood that research-based practices will be valued and adopted in organizations. For example, Chapman and Zweig (2005) and Lievens and De Paepe (2003) found that trained interviewers were much more likely to practice structured interviews than their untrained counterparts. We are also hopeful that ongoing learning through professional development requirements for maintaining professional credentials will further infuse and update practice in the field. Likewise, it is necessary for researchers and instructors to engage the professional community to ensure that the research we are conducting is both relevant and timely.

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EPILOGUE

The central question of this chapter was: 'Which new research developments have occurred that advance recruitment and selection practice?' On the one hand our review exemplified many areas wherein both recruitment and selection research might have practical implications for organizations. A key example is the rapid increase of technology in

both recruitment and selection, as showcased by the tailoring of media rich information in recruitment and the use of videoconferencing and (un)proctored web-based testing in selection. Other examples are the renewed importance of recruiter behaviors, the value of investing in employer brand audits and employer brand management, specific guidelines for increasing the validity of extant selection procedures, the development of new selection procedures, and the adaptation of selection procedures to a cross-cultural context.

On the other hand, a common thread running through our review is that we have difficulty of bringing our message that recruitment and selection matter to the organization across. In both recruitment and selection, we need to find ways of demonstrating the value of recruiting and selecting to organizations. In recruitment, this might be done by developing frameworks for assessing the quantity and quality of the applicant pool. In selection, a macro oriented (multilevel) approach might be needed for showing the effects of selection procedures on individual, group, and organizational outcomes.

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REFERENCES

Aaker, J.L. (1997) 'Dimensions of brand personality', *Journal of Marketing Research*, 34: 347–56.

Allen, D., Van Scotter, J. and Otondo, R. (2004) 'Recruitment communication media: Impact on pre-hire outcomes', *Personnel Psychology*, 57: 143–71.

Aiman-Smith, L., Bauer, T.N. and Cable, D.M. (2001) 'Are you attracted? Do you intend to pursue? A recruiting policy-capturing study', *Journal of Business and Psychology*, 16: 219–37.

Arthur, W., Day, E.A., McNelly, T.L. and Edens, P.S. (2003) 'A meta-analysis of the criterion-related validity of assessment center dimensions', *Personnel Psychology*, 56: 125–54.

Avery, D.R. and McKay, P.F. (2006) 'Target practice: An organizational impression management approach to attracting minority and female job applicants', *Personnel Psychology*, 59: 157–87.

Backhaus, K.B., Stone, B.A. and Heiner, K. (2002) 'Exploring the relationship between corporate social performance and employer attractiveness', *Business and Society*, 41: 292–318.

Backhaus, K. and Tikoo, S. (2004) 'Conceptualizing and researching employer branding', *Career Development International*, 9: 501–17.

Barber, A.E. (1998) *Recruiting Employees: Individual and Organizational Perspectives*. Thousands Oaks, CA: Sage.

Bauer, T.N, Truxillo, D.M., Sanchez, R., Craig, J., Ferrara P. and Campion, M.A. (2001) 'Development of the Selection Procedural Justice Scale', *Personnel Psychology*, 54: 387–419.

Becker, B.E. and Huselid, M.A. (1998) 'High performance work systems and firm performance: A synthesis of research and managerial implications', in G.R. Ferris (ed.), *Research in personnel and human resource management*. Greenwich, CT: JAI Press. pp. 53–101.

Becker, T.E. (2005) 'Development and validation of a situational judgment test of employee integrity', *International Journal of Selection and Assessment*, 13: 225–32.

Bing, M.N., Whanger, J.C., Davison, H.K. and VanHook, J.B. (2004) 'Incremental validity of the frame-of-reference effect in personality scale scores: A replication and extension', *Journal of Applied Psychology*, 89: 150–7.

Boudreau, J. and Rynes, S. (1985) 'Role of recruitment in staffing utility analysis', *Journal of Applied Psychology*, 70: 354–66.

Breaugh, J.A. and Starke, M. (2000) 'Research on employee recruitment: So many studies, so many remaining questions', *Journal of Management*, 26: 405–34.

Brooks, M.E., Highhouse, S., Russell, S. and Mohr, D. (2003) 'Familiarity, ambivalence, and firm reputation: Is corporate fame a double-edged sword?', *Journal of Applied Psychology*, 88: 904–14.

Cable, D.M., Aiman-Smith, L. et al. (2000) 'The sources and accuracy of job applicants' beliefs about organizational culture', *Academy of Management Journal*, 43: 1076–85.

Cable, D.M. and Graham, M.E. (2000) 'The determinants of job seekers' reputation perceptions', *Journal of Organizational Behavior*, 21: 929–47.

Cable, D.M. and Turban, D.B. (2003) 'The value of organizational reputation in the recruitment context: A brand-equity perspective', *Journal of Applied Social Psychology*, 33: 2244–66.

Cable, D.M. and Turban, D.B. (2001) 'Establishing the dimensions, sources and value of job seekers' employer knowledge during recruitment', in G.R. Ferris (ed) *Research in Personnel and Human Resources Management*. New York, NY: Elsevier Science. pp. 115–63.

AU: Please give names of all authors.

Campbell, J.P., McCloy, R.A., Oppler, S.H. and Sager C.E. (1993) 'A theory of performance', in N. Schmitt and W.C. Borman (eds), *Personnel Selection in Organizations*. San Francisco, CA: Jossey Bass. pp. 35–70.

Carlson, K.D., Connerly, M.L. and Mecham, R.L. (2002) 'Recruitment evaluation: The case for assessing the quality of applicants attracted', *Personnel Psychology*, 55: 461–90.

Chan, D. and Schmitt, N. (1997) 'Video-based versus paper-and-pencil method of assessment in situational judgment tests: Subgroup differences in test performance and face validity perceptions', *Journal of Applied Psychology*, 82: 143–59.

Chan, D. and Schmitt, N. (2002) 'Situational judgment and job performance', *Human Performance*, 15: 233–54.

Chapman, D.S. and Rowe, P.M. (2001) 'The impact of videoconference media, interview structure, and interviewer gender on interviewer evaluations in the employment interview: A field experiment', *Journal of Occupational and Organizational Psychology*, 74: 279–98.

Chapman, D.S., Uggerslev, K.L., Carroll, S.A., Piasentin, K.A. and Jones, D.A. (2005) 'Applicant attraction to organizations and job choice: A meta-analytic review of the correlates of recruiting outcomes', *Journal of Applied Psychology*, 90: 928–44.

Chapman, D.S., Uggerslev, K.L. and Webster, J. (2003) 'Applicant reactions to face-to-face and technology-mediated interviews: A field investigation', *Journal of Applied Psychology*, 88: 944–53.

Chapman, D.S. and Webster, J. (2001) 'Rater correction processes in applicant selection using videoconference technology: The role of attributions', *Journal of Applied Social Psychology*, 31: 2518–37.

Chapman, D.S. and Webster, J. (2003) 'The use of technologies in the recruiting, screening, and selection processes for job candidates', *International Journal of Selection and Assessment*, 11: 113–20.

Chapman, D.S. and Webster, J. (2006) 'Integrating applicant reactions into the critical contact framework of recruiting', *International Journal of Human Resource Management*, 17: 1032–57.

Chapman, D.S. and Zweig, D.I. (2005) 'Developing a nomological network for interview structure: Antecedents and consequences of the structured selection interview', *Personnel Psychology*, 58: 673–702.

Clevenger, J., Pereira, G.M., Wiechmann, D., Schmitt, N. and Harvey, V.S. (2001) 'Incremental validity of situational judgment tests', *Journal of Applied Psychology*, 86: 410–17.

Cober, R.T., Brown, D.J. and Levy, P.E. (2004) 'Form, content, and function: An evaluative methodology for corporate employment Web sites', *Human Resource Management*, 43: 201–18.

Cober, R.T., Brown, D.J., Levy, P.E., Cober, A.B. and Keeping, L.M. (2003) 'Organizational Web sites: Web site content and style as determinants of organizational attraction', *International Journal of Selection and Assessment*, 11: 158–69.

Collins, C.J. and Han, J. (2004) 'Exploring applicant pool quantity and quality: The effects of early recruitment practices, corporate advertising, and firm reputation', *Personnel Psychology*, 57: 685–717.

Collins, C.J. and Stevens, C.K. (2002) 'The relationship between early recruitment related activities and the application decisions of new labor-market entrants: A brand equity approach to recruitment', *Journal of Applied Psychology*, 87: 1121–33.

Dineen, B.R., Ash, S.R. and Noe, R.A. (2002) 'A Web of applicant attraction: Person–organization fit in the context of Web-based recruitment', *Journal of Applied Psychology*, 87: 723–34.

Dineen, B.R., Ling, J., Ash, S.R. and DelVecchio, D. (2007) 'Aesthetic properties and message customization: Navigating the dark side of Web recruitment', *Journal of Applied Psychology*, 92: 356–72.

Dwight, S.A. and Donovan, J.J. (2003) 'Do warnings not to fake reduce faking?', *Human Performance*, 16: 1–23.

Ellingson, J.E., Sackett, P.R. and Hough, L.M. (1999) 'Social desirability corrections in personality measurement: Issues of applicant comparison and construct validity', *Journal of Applied Psychology*, 84: 155–66.

Fulmer, I.S., Gerhart, B. and Scott, K.S. (2003) 'Are the 100 best better? An empirical investigation of the relationship between being a "great place to work" and firm performance', *Personnel Psychology*, 56: 965–93.

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

Greening, D.W. and Turban, D.B. (2000) 'Corporate social performance as a competitive advantage in attracting a quality workforce', *Business and Society*, 39: 254–80.

Hattrup K., Schmitt N. and Landis R.S. (1992) 'Equivalence of constructs measured by job-specific and commercially available aptitude-tests', *Journal of Applied Psychology*, 77: 298–308.

Hausknecht, J.P., Day, D.V. and Thomas, S.C. (2004) 'Applicant reactions to selection procedures: An updated model and meta-analysis', *Personnel Psychology*, 57: 639–83.

Hedge, J.W., Borman, W.C. and Lammlein, S.E. (eds) (2006) *The Aging Workforce*. Washington, DC, American Psychological Association.

Heggestad, E.D., Morrison, M., Reeve, C.L. and McCloy, R.A. (2006) 'Forced-choice assessments of personality for selection: Evaluating issues of normative assessment and faking resistance', *Journal of Applied Psychology*, 91: 9–24.

Highhouse, S., Zickar, M.J., Thorsteinson, T.J., Stierwalt, S.L. and Slaughter, J. (1999) 'Assessing company employment image: An example in the fast food industry', *Personnel Psychology*, 52: 151–72.

Hogan, J. and Holland, B. (2003) 'Using theory to evaluate personality and job-performance relations: A socioanalytic perspective', *Journal of Applied Psychology*, 88: 100–12.

Hough, L.M. and Oswald, F.L. (2000) 'Personnel selection: Looking toward the future – Remembering the past', *Annual Review of Psychology*, 51: 631–64.

Hunter, D.R. (2003) 'Measuring general aviation pilot judgment using a situational judgment technique', *International Journal of Aviation Psychology*, 13: 373–86.

Hunthausen, J.M., Truxillo, D.M., Bauer, T.N. and Hammer, L.B. (2003) 'A field study of frame-of-reference effects on personality test validity', *Journal of Applied Psychology*, 88: 545–51.

Huo, Y.P., Huang, H.J. and Napier, N.K. (2002) 'Divergence or convergence: A cross national comparison of personnel selection practices', *Human Resource Management*, 41: 31–44.

Huselid, M.A. (1995) 'The impact of human resource management practices on turnover, productivity and corporate financial performance', *Academy of Management Journal*, 38: 635–72.

James, L.R., McIntyre, M.D., Glisson, C.A., Green, P.D., Patton, T.W. and LeBreton, J.M. (2005) 'A conditional reasoning measure for aggression', *Organizational Research Methods*, 8: 69–99.

Johns, G. (1993) 'Constraints on the adoption of psychology-based personnel practices: Lessons from organizational innovation', *Personnel Psychology*, 46: 569–92.

Jones, D.A., Shultz, J.W. and Chapman, D.S. (2006) 'Recruiting through job advertisements: The effects of cognitive elaboration on decision making', *International Journal of Selection and Assessment*, 14: 167–79.

Kanning, U.P., Grewe, K., Hollenberg, S. and Hadouch, M. (2006) 'From the subjects' point of view – Reactions to different types of situational judgment items', *European Journal of Psychological Assessment*, 22: 168–76.

Konradt, U., Hertel, G. and Joder, K. (2003) 'Web-based assessment of call center agents: Development and validation of a computerized instrument', *International Journal of Selection and Assessment*, 11: 184–93.

Landy, F.J. (2005) 'Some historical and scientific issues related to research on emotional intelligence', *Journal of Organizational Behavior*, 26: 411–24.

Larsen, D.A. and Phillips, J.I. (2002) 'Effect of recruiter on attraction to the firm: Implications of the elaboration likelihood model', *Journal of Business and Psychology*, 16: 347–64.

LeBreton, J.M., Barksdale, C.D., Robin, J.D. and James, L.R. (2007) 'Measurement issues associated with conditional reasoning tests of personality: Deception and faking', *Journal of Applied Psychology*, 92: 1–16.

Lee, I. (2005) 'The Evolution of E-Recruiting: A content analysis of Fortune 100 career web sites', *Journal of Electronic Commerce in Organizations*, 3 (3): 57.

Lievens, F. (2007a) 'Employer branding in the Belgian Army: The importance of instrumental and symbolic beliefs for potential applicants, actual applicants, and military employees', *Human Resource Management*, 46: 51–69.

Lievens, F. (2007b) 'Research on selection in an international context: Current status and future directions', in M.M. Harris (ed.), *Handbook of Research in International Human Resource Management*. Lawrence Erlbaum's Organizations and Management Series.

Lievens, F., Buyse, T. and Sackett, P.R. (2005) 'The operational validity of a video–based situational judgment test for medical college admissions: Illustrating the importance of matching predictor and criterion construct domains', *Journal of Applied Psychology*, 90: 442–52.

Lievens, F. and De Paepe, A. (2004) 'An empirical investigation of interviewer–related factors that discourage the use of high structure interviews', *Journal of Organizational Behavior*, 25: 29–46.

Lievens, F., Harris, M.M., Van Keer, E. and Bisqueret, C. (2003) 'Predicting crosscultural training performance: The validity of personality, cognitive ability, and dimensions measured by an assessment center and a behavior description interview', *Journal of Applied Psychology*, 88: 476–89.

Lievens, F. and Highhouse, S. (2003) 'The relation of instrumental and symbolic attributes to a company's attractiveness as an employer', *Personnel Psychology*, 56: 75–102.

Matthews, G., Roberts, R.D. and Zeidner, M. (2004) 'Seven myths about emotional intelligence', *Psychological Inquiry*, 15: 179–96.

AU: Page range, publisher and location of publisher?

McClough, A.C. and Rogelberg, S.G. (2003) 'Selection in teams: An exploration of the Teamwork Knowledge, Skills, and Ability test', *International Journal of Selection and Assessment*, 11: 56–66.

McDaniel, M.A., Hartman, N.S., Whetzel, D.L. and Grubb, W.L. (2007) 'Situational judgment tests, response instructions, and validity: A meta-analysis', *Personnel Psychology*, 60: 63–91.

McDaniel, M.A., Morgeson, F.P., Finnegan, E.B., Campion, M.A. and Braverman, E.P. (2001) 'Use of situational judgment tests to predict job performance: A clarification of the literature', *Journal of Applied Psychology*, 86: 730–40.

McHenry, J.J., Hough, L.M., Toquam, J.L., Hanson, M.A. and Ashworth, S. (1990) 'Project a validity results – the relationship between predictor and criterion domain', *Personnel Psychology*, 43: 335–54.

Mendenhall, M. and Oddou, G. (1985) 'The dimensions of expatriate acculturation: A review', *Academy of Management Review*, 10: 39–47.

Mol, S.T., Born, M., Willemsen, M.E. and Van Der Molen, H.T. (2005) 'Predicting expatriate job performance for selection purposes: A quantitative review', *Journal of Cross-Cultural Psychology*, 36: 1–31.

Morgeson, F.P., Reider, M.H. and Campion, M.A. (2005) 'Selecting individuals in team settings: The importance of social skills, personality characteristics, and teamwork knowledge', *Personnel Psychology*, 58: 583–611.

Motowidlo, S.J., Hooper, A.C. and Jackson, H.L. (2006) 'Implicit policies about relations between personality traits and behavioral effectiveness in situational judgment items', *Journal of Applied Psychology*, 91: 749–61.

Muchinsky, P.M. (2004) 'When the psychometrics of test development meets organizational realities: A conceptual framework for organizational change, examples, and recommendations', *Personnel Psychology*, 57: 175–209.

Mueller-Hanson, R., Heggestad, E.D. and Thornton, G.C. (2003) 'Faking and selection: Considering the use of personality from select-in and select-out perspectives', *Journal of Applied Psychology*, 88: 348–55.

Murphy, K.R. (1986) 'When your top choice turns you down: Effects of rejected offers on the utility of selection tests', *Psychological Bulletin*, 99: 133–38.

Nguyen, N.T., Biderman, M.D. and McDaniel, M.A. (2005) 'Effects of response instructions on faking a situational judgment test', *International Journal of Selection and Assessment*, 13: 250–60.

Ones, D.S. and Viswesvaran, C. (1997) 'Personality determinants in the prediction of aspects of expatriate job success', in D.M. Saunder and Z. Aycan (eds), *New Approaches to Employee Management: Expatriate Management: Theory and Research.* Greenwich, CT: JAI Press.

Oswald, F.L., Schmitt, N., Kim, B.H., Ramsay, L.J. and Gillespie, M.A. (2004) 'Developing a biodata measure and situational judgment inventory as predictors of college student performance', *Journal of Applied Psychology*, 89: 187–208.

Ployhart, R.E. (2006) 'Staffing in the 21st century: New challenges and strategic opportunities', *Journal of Management*, 32: 868–97.

Ployhart, R.E., Sacco, J.M., Nishii, L.H. and Rogg, K.L. (2004, April) *The influence of culture on criterion-related validity and job performance.* Poster presented at the Annual Conference of the Society for Industrial and Organizational Psychology, Chicago, IL.

Ployhart, R.E., Weekley, J.A. and Baughman, K. (2006) 'The structure and function of human capital emergence: A multilevel examination of the attraction-selection-attrition model', *Academy of Management Journal*, 49: 661–77.

Ployhart, R.E., Weekley, J.A., Holtz, B.C. and Kemp, C. (2003) 'Web-based and paper-and-pencil testing of applicants in a proctored setting: Are personality, biodata, and situational judgment tests comparable?', *Personnel Psychology*, 56: 733–52.

Potosky, D. and Bobko, P. (2004) 'Selection testing via the Internet: Practical considerations and exploratory empirical findings', *Personnel Psychology*, 57: 1003–34.

Rau, B.L. and Adams, G. (2004) 'Job seeking among retirees seeking bridge employment', *Personnel Psychology*, 57: 719–44.

Rau, B.L. and Adams, G. (2005) 'Organizational Attraction of Retirees for Bridge Employment', *Journal of Organizational Behavior*, 26: 649–60.

Richman, W.L., Kiesler, S., Weisband, S. and Drasgow, F. (1999) 'A meta-analytic study of social desirability distortion in computer-administered questionnaires, traditional questionnaires, and interviews', *Journal of Applied Psychology*, 84: 754–75.

Richman-Hirsch, W.L., Olson-Buchanan, J.B. and Drasgow, F. (2000) 'Examining the impact of administration medium on examinee perceptions and attitudes', *Journal of Applied Psychology*, 85: 880–7.

Ronen, S. (1989) 'Training the international assignee', in I.L. Goldstein (ed.), *Training and development in organizations.* San Francisco: Jossey-Bass. pp. 417–53.

Ryan, A.M., McFarland, L., Baron, H. and Page, R. (1999) 'An international look at selection practices: Nation and culture as explanations for variability in practice', *Personnel Psychology*, 52: 359–91.

AU: Page range?

Ryan, A.M. and Ployhart, R.E. (2000) 'Applicants' perceptions of selection procedures and decisions: A critical review and agenda for the future', *Journal of Management*, 26: 565–606.

Rynes, S.L., Colbert, A.E. and Brown, K.G. (2002) 'HR professionals' beliefs about effective human resource practices: Correspondence between research and practice', *Human Resource Management*, 41: 149–74.

Salgado, J.F. (1997) 'The Five-Factor model of personality and job performance in the European Community', *Journal of Applied Psychology*, 82: 30–43.

Salgado, J.F., Anderson, N., Moscoso, S., Bertua, C. and De Fruyt, F. (2003a) 'International validity generalization of GMA and cognitive abilities: A European community meta-analysis', *Personnel Psychology*, 56: 573–605.

Salgado, J.F., Anderson, N., Moscoso, S., Bertua, C., De Fruyt, F. and Rolland, J.P. (2003b) 'A meta-analytic study of general mental ability validity for different occupations in the European Community', *Journal of Applied Psychology*, 88: 1068–81.

Schmidt, F.L. and Hunter, J.E. (1998) 'The validity and utility of selection methods in personnel psychology: Practical and theoretical implications of 85 years of research findings', *Psychological Bulletin*, 124: 262–74.

Schmit, M.J., Kihm, J.A. and Robie, C. (2000) 'Development of a global measure of personality', *Personnel Psychology*, 53: 153–93.

Schmitt, N. (2002) 'A multi-level perspective on personnel selection: Are we ready?', in F.J. Dansereau and F. Yamarino (eds), *Research in multi-level issues: The many faces of multi-level issues.* Oxford, UK: Elsevier. pp. 155–64.

Schmitt, N. and Chan, D. (1998) *Personnel selection. A theoretical approach.* London: Sage.

Schmitt, N. and Kunce, C. (2002) 'The effects of required elaboration of answers to biodata questions', *Personnel Psychology*, 55: 569–87.

Schmitt, N. and Mills, A.E. (2001) 'Traditional tests and job simulations: Minority and majority performance and test validities', *Journal of Applied Psychology*, 86: 451–54.

Schmitt, N. and Oswald, F.L. (2006) 'The impact of corrections for faking on the validity of noncognitive measures in selection settings', *Journal of Applied Psychology*, 91: 613–21.

Schmitt, N., Oswald, F.L., Kim, B.H., Gillespie, M.A., Ramsay, L.J. and Yoo, T.Y. (2003) 'Impact of elaboration on socially desirable responding and the validity of biodata measures', *Journal of Applied Psychology*, 88: 979–88.

Schneider, B., Smith, D.B. and Sipe, W. (2000) 'Multilevel personnel selection', in K. Klein and S. Kozlowski (eds), *Multilevel theory, research, and methods in organizations.* San Francisco, CA: Jossey–Bass.

Schuler, R., Dowling, P. and DeCieri, H. (1993) 'An integrative framework of strategic international human resource management', *Journal of Management*, 19: 419–59.

Sinangil, H.K. and Ones, D.S. (2001) 'Expatriate management', in N. Anderson, D.S. Ones, H.K. Sinangil and C. Viswesvaran (eds), *Handbook of industrial, work and organizational psychology.* London, UK: Sage. pp. 424–43.

Slaughter, J.E., Zickar M.J., Highhouse, S. and Mohr, (2004) 'Personality trait inferences about organizations: Development of a measure and assessment of construct validity', *Journal of Applied Psychology*, 89: 85–103

Stevens, M.J. and Campion, M.A. (1999) 'Staffing work teams: Development and validation of a selection test for teamwork settings', *Journal of Management*, 25: 207–28.

Terpstra, D.E. and Rozell, E.J. (1993) 'The relationship of staffing practices to organizational level measures of performance', *Personnel Psychology*, 46: 27–48.

Tippins, N.T., Beaty, J., Drasgow, F., Gibson, W.M., Pearlman, K., Segall, D.O. and Shepherd, W. (2006) 'Unproctored internet testing in employment settings', *Personnel Psychology*, 59: 189–225.

Turban, D.B. (2001) 'Organizational attractiveness as an employer on college campuses: An examination of the applicant population', *Journal of Vocational Behavior*, 58: 293–312.

Turban, D.B. and Greening, D.W. (1997) 'Corporate social performance and organizational attractiveness to prospective employees', *Academy of Management Journal*, 40: 658–72.

Turban, D.B. and Cable, D.M. (2003) 'Firm reputation and applicant pool characteristics', *Journal of Organizational Behavior*, 24: 733–51.

Van Rooy, D.L., Viswesvaran, C. and Pluta, P. (2005) 'An evaluation of construct validity: What is this thing called Emotional Intelligence?', *Human Performance*, 18: 445–62.

Von Glinow, M.A., Drost, E.A. and Teagarden, M.B. (2002) 'Converging on IHRM best practices: Lessons learned from a globally distributed consortium on theory and practice', *Human Resource Management*, 41: 123–40.

Williamson, I.O., Lepak D.P. and King, J. (2003) 'The effect of company recruitment web site orientation on individuals' perceptions of organizational attractiveness', *Journal of Vocational Behavior*, 63: 242–63.

AU: Page range?

AU: Please give initial for Mohr.

Wilk, S.L. and Cappelli, P. (2003) 'Understanding the determinants of employer use of selection methods', *Personnel Psychology*, 56: 103–24.

Witt, L.A. (2002) 'The interactive effects of extraversion and conscientiousness on performance', *Journal of Management*, 28: 835–51.

Witt, L.A., Burke, L.A., Barrick, M.R. and Mount, M.K. (2002) 'The interactive effects of conscientiousness and agreeableness on job performance', *Journal of Applied Psychology*, 87: 164–69.

Witt, L.A. and Ferris, G.R. (2003) 'Social skill as moderator of the conscientiousness-performance relationship: Convergent results across four studies', *Journal of Applied Psychology*, 88: 809–20.

Wright, P.M., Gardner, T.M., Moynihan, L.M. and Allen, M.R. (2005) 'The relationship between HR practices and firm performance: Examining causal order', *Personnel Psychology*, 58: 409–46.

Wright, P.M., Gardner, T.M., Moynihan, L.M., Park, H., Gerhart, B. and Delery, J. (2001) 'Measurement error in research on human resources and firm performance: Additional data and suggestions for future research', *Personnel Psychology*, 54: 875–902.

Zeidner, M., Matthews, G. and Roberts, R.D. (2004) 'Emotional intelligence in the workplace: A critical review', *Applied Psychology: An International Review*, 53: 371–99.