The Interaction of Attraction and Selection: Implications for College Recruitment and Schneider’s ASA Model

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Les jeunes qui viennent d’obtenir leur premier diplôme universitaire (college) constituent un potentiel important de candidats à l’embauche dans les grandes entreprises. Les responsables des organisations ont besoin de savoir en quoi les profils de ces futurs diplômés susceptibles d’être attirés et sélectionnés par l’organisation se différencient des profils de la population générale des candidats. Nous avons, dans cette recherche, étudié la relation existant entre les profils de 223 étudiants sur le point d’obtenir leur diplôme du college et l’attirance pour une organisation, l’obtention d’un score satisfaisant à une procédure de sélection et l’interaction de ces deux variables. Les résultats montrent que ceux qui sont attirés par l’organisation diffèrent de ceux qui ne le sont pas. Ceux qui seraient retenus pour la poursuite du recrutement sont différents de ceux qui seraient éliminés. Mais l’interaction de l’attirance et de la sélection n’est en rapport avec aucune des différences individuelles. En outre, l’attirance et la sélection n’interagissent pour réduire la variance sur aucune des variables de différences individuelles. Ces résultats ouvrent une nouvelle perspective sur les conséquences modélisées dans le schéma Attirance-Sélection-Elimination de

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B. Schneider (1987). On discute enfin des implications de notre recherche pour ce modèle et pour le recrutement des étudiants de college.

New college graduates are an important source of hires in large firms. Of interest to organisational decision makers are how the individual-difference profiles of soon-to-be college graduates that are likely to be attracted to, and selected by, the organisation compare with the profiles of the overall applicant population. In this research, we investigated how self-reported attraction to an organisation, achievement of a passing score on an organisation’s screening device, and the interaction of these two variables related to the individual-difference profiles of 223 senior-level college undergraduates. Results indicated that those who were attracted to the organisation differed from those who were not attracted. Those who would be screened in for further selection by the organisation differed from those who would be rejected. However, the interaction of attraction and screening was unrelated to any of the individual differences. Moreover, attraction and screening did not interact to restrict variance on any of the individual-difference variables. These results provide a new perspective on the effects hypothesised in B. Schneider’s (1987) Attraction-Selection-Attrition model. Implications for this model and for recruiting from the college student population are discussed.

INTRODUCTION

Large organisations have used college placement offices and job fairs as a major source of new employee recruitment for years (Rynes & Boudreau, 1986), with recent estimates of the percentage of new recruits coming straight from college running as high as 40 per cent (Rynes, Orlitzky, & Bretz, 1997). Researchers and practitioners alike have noted several reasons why recruiting from the college student population is both advantageous and necessary, including the affordability of new graduates, increases in the number of entry-level jobs over the last several years, and the greater technological skills, enthusiasm, and updated educational experiences of new graduates, relative to more experienced applicants (Bottjen, 2001; Hoopis, 1994; Stevens, 1999). The centralisation of the college recruiting function in organisations’ human resources (HR) departments and the consistent annual cycle of recruiting have served to increase its importance as an HR activity. In turn, college recruiting has become a frequent topic of study for organisational researchers (Barber, 1998; Turban, 2001; Turban, Campion, & Eyring, 1995).

Although the primary objective of college recruitment is simply to fill employment vacancies (Rynes & Boudreau, 1986), of much greater interest to organisational decision makers and HR professionals are the kinds of people that are likely to fill positions at the company, and how those individuals “stack up” against those who are likely to work for their competitors (e.g. Boudreau & Rynes, 1985). Unfortunately, there has been little research on ways to compare the profiles of an organisation’s applicant pool or its pool of new hires to those of the larger applicant population. In
A seminal review and critique of applicant attraction research, Rynes and Barber (1990, p. 290) argued that, "Indeed, there are both conceptual and empirical reasons for believing that most vacancies are eventually filled with someone... the most interesting questions involve not the numbers, but the characteristics of those attracted."

Rynes and Barber (1990) noted, of course, that although the true quality of one’s applicants cannot be known during the selection process, information on a limited number of predictor variables may be available if the organisation elects to assess applicants on those variables. Unfortunately, measuring applicants on just a few individual-difference variables after they are already known to be attracted to the organisation, as is typically the case (Ryan, McFarland, Baron, & Page, 1999), provides only a limited view of the individuals in the applicant pool and provides no basis for comparing the pool or the group of new hires to the remainder of the applicant population. The current study seeks to contribute to existing literature by determining how applicant attraction to a firm and performance on that firm’s screening measure could singly and/or jointly influence the characteristics of individuals most likely to enter a single organisation. By randomly sampling from the applicant population on a college campus, covertly measuring these individuals’ attraction to a single, particular organisation, asking them to complete that organisation’s screening measure, and measuring them on various individual-difference characteristics, we were able to compare the characteristics of various groups (e.g. those attracted to the organisation versus those not attracted; those who were both attracted to the organisation and passed the screening measure versus all other groups). Turban (2001, p. 306) suggested that, relative to studies of one organisation’s applicant pool, studies of the larger applicant population provide much more important information to organisations, noting that “such research is crucial to understanding how to get potential applicants in the applicant pool”.

Indeed, we believe that this is an additional contribution of the current study: Demonstration of a practical tool that organisations can use to compare the characteristics of their applicants and likely employees to the remainder of the potential applicant pool. That we focused on the applicant population (Barber, 1998) is an important feature of the present investigation, because the decision of whether or not to seek employment with a firm is critical. That is, if an individual does not take an initial interest in the organisation, it is impossible for the organisation to increase its attractiveness to that applicant via recruitment (Rynes, 1991).

From a practical perspective, consideration of the characteristics of the applicant pool, or the group of individuals likely to be screened in for further consideration, would most likely involve a comparison of group means (e.g. is the group of individuals attracted to the organisation more extraverted than the group that is not attracted to the organisation?). From a theoretical
perspective, however, the variance of different groups is also of interest (e.g. is the group of individuals attracted to the organisation more homogeneously extraverted than those who are not attracted?). An intriguing theoretical framework, known as the Attraction-Selection-Attrition (ASA) model (B. Schneider, 1987), argues that homogeneity of individual differences in organisations is undesirable, yet unavoidable. Such homogeneity, these researchers argue, occurs as a side effect of the development of individuals’ attraction to an organisation and companies’ formal and informal recruiting and selection procedures. Below, we discuss the ASA framework, its tenets, and related research, and explain how the design of this study allowed us to address some untested propositions of this model.

The Attraction-Selection-Attrition Framework

B. Schneider (1987) proposed a person-based perspective of organisational behavior known as the Attraction-Selection-Attrition (ASA) framework. Although there are many intriguing propositions in Schneider’s framework, the testable predictions in the ASA model are based on its major proposition that organisations become more homogeneous over time (B. Schneider, Goldstein, & Smith, 1995). This proposition is predicated upon three interacting processes. The first is attraction. The ASA framework predicts that individuals will be attracted to organisations where the modal personality is most similar to their own. The second process constitutes the selection portion of the model. Through both formal and informal selection processes, organisations tend to hire individuals that are most similar to the organisation’s current members. The third process is attrition. Over time, individuals whose personalities do not “fit” with other employees will be more likely to leave, voluntarily or involuntarily.

Whereas most of the direct evidence for the homogeneity hypothesis has come from laboratory studies (e.g. Bretz, Ash, & Dreher, 1989, Lievens, Decaesstecker, Coetsier, & Geirnaert, 2001; Turban & Keon, 1993), a recent field investigation (B. Schneider, Smith, Taylor, & Fleenor, 1998) has provided empirical support for the proposition that the personalities of individuals within organisations are likely to be more similar than the personalities of individuals across organisations. Using a sample of managers (across 142 organisations) who took the Myers-Briggs Type Indicator (MBTI), B. Schneider et al. found that organisational membership had a multivariate effect on the four MBTI dimensions, and that organisational membership accounted for 24 per cent of the variance in MBTI scores (16 per cent when controlling for industry similarity across organisations). This evidence provides support for the basic assumption of ASA: Organisational membership is related to personality, because there is larger between-organisation variance than within-organisation variance on personality variables.
B. Schneider et al. (1998) noted that, although the homogeneity of personality hypothesis had been supported by their findings, the results had “shed no light on the causes of homogeneity observed” (p. 467). The authors speculated that the observed homogeneity comes from the attraction, selection, and attrition processes discussed above, in addition to socialisation tactics used to change newcomers’ values to be more similar to other organisation members.

An important contribution of the current study was that we were able to determine how attraction to an organisation and initial applicant screening might contribute to homogeneity—that is, we could tease apart the independent and combined influences of these two processes on variances of different groups in the applicant population. More specifically, we sought to determine whether individuals who are attracted to a particular organisation have restricted variance on personality variables, relative to the rest of the potential applicant pool; whether individuals who pass this particular organisation’s first-hurdle screening device have restricted variance relative to the rest of the potential applicant pool; and finally, whether those who are attracted to a particular organisation and achieve a passing score on the organisation’s first-hurdle screening device have restricted variance relative to the rest of the applicant pool. Whereas the ASA model predicts that homogenisation occurs across an elongated cycle of organisational membership, in this study we were able to test specifically whether the very early phases of attraction and initial screening could potentially function as homogenising forces prior to organisational entry. B. Schneider et al. (1995) noted that field studies typically confound all three originally proposed processes (attraction, selection, and attrition), and that the relative contribution of the processes is an interesting and important question.

In summary, the present study addressed two related goals, one practical and one theoretical. First, given the importance and ubiquity of college recruitment, we demonstrate a method that HR professionals can use to compare individuals who would be likely to be attracted to and selected by their organisations to other individuals in the applicant population. Such information is valuable because it documents the image of the organisation among desirable and less desirable candidates. Second, we tested the effects of attraction, screening, and their interaction on homogeneity within organisations. This issue is important from a theoretical perspective because it may shed light on the operation of the ASA model.

The ASA model suggests three hypotheses that were tested in the present investigation.

*Hypothesis 1.* Individuals who are attracted to the organisation will have lower variance on individual difference variables than those who are not attracted to the organisation.

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Hypothesis 2. Individuals who would be selected by the organisation will have lower variance on individual difference variables than those who would not be selected.

Hypothesis 3. Attraction and selection will interact to affect variance of individual difference variables. Those who are attracted to and would be selected by the organisation will have lower variance on individual differences than all other groups.

Individual Differences Relevant to Attraction, Selection, and Job Performance

Locating individual differences for which organisations would want employees to have high levels is a relatively straightforward process, as there is a sizeable literature on dispositional variables that are related to job performance (e.g. Hunter & Hunter, 1984; Schmidt & Hunter, 1998). With regard to the other issue of interest in this study, although Schneider and his colleagues have been clear in their position that homogeneity of individual differences in organisations can be dysfunctional because it promotes inflexibility and thus makes organisations difficult to change (e.g. Gersick, 1991; Miller, 1991), they have not delineated which individual differences should exhibit variability in order to avoid this inflexibility. In fact, B. Schneider (1987), B. Schneider et al. (1995), and B. Schneider et al. (1998) neglected to discuss examples of how a lack of variance on personal characteristics could be detrimental to organisational functioning. B. Schneider et al. (1998), however, were clear about the domain in which they expected homogeneity to occur—the personality domain. According to the authors:

The anthropological notion of shared personality characteristics may offer a unique opportunity to contribute to the understanding of organizations and their strategy, structure, and culture . . . both the ASA and the socialization literature yield the common hypothesis of homogeneity of personality. (pp. 462–464)

In keeping with the homogeneity of personality hypothesis proposed by ASA, we measured three different classes of personality variables: The Big Five personality characteristics (Digman, 1990), manifest needs (McClelland, 1975), and risk taking (Lopes, 1987). Each of these domains is discussed below. We also discuss within each section evidence for the desirability of having employees exhibit high means on all traits. We also note cases in which it might be desirable to have employees exhibit moderate variance (e.g. extraversion, need for autonomy).

**Big Five Personality Traits.** Now a widely accepted typology in the personality research literature, the Big Five dimensions of personality traits

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are extraversion, emotional stability, agreeableness, conscientiousness, and openness to experience. Barrick and Mount (1991) found that extraversion and conscientiousness were the two dimensions most strongly related to managerial effectiveness, whereas Tett, Jackson, and Rothstein (1991) found that all five dimensions were predictive of managerial performance. More recently, Hurtz and Donovan (2000) found that conscientiousness and emotional stability were the most consistent predictors of performance. In any case, we followed the assumption that an organisation would be interested in employing individuals with high levels of each of these traits, but that it would be seen as advantageous if organisations also employed groups of individuals with at least some variance on some traits. For example, because extraversion appears to be linearly related to job performance, it is desirable if one’s employees are highly extraverted on average. On the other hand, having employees who are all extremely extraverted could be problematic in that it could lead to interpersonal conflict and/or excessive time spent off task (Barrick, Stewart, Neubert, & Mount, 1998). Variance on the other four personality dimensions arguably would confer little advantage, but in accordance with the effects predicted by the ASA model, we considered it nonetheless interesting to compare variances of the different applicant groups on these measures.

Manifest Needs. McClelland and his colleagues (e.g. McClelland, 1970; McClelland & Boyatzis, 1982) have advanced a need-based theory of motivation in which three trait needs function as predictor of employee performance: need for power (nPow), need for affiliation (nAff), and need for achievement (nAch). This body of research has been relatively consistent in finding that managerial performance is positively related to nPow and negatively related to nAff. Additionally, whereas McClelland and Boyatzis (1982) have found that the relation between nAch and employee performance is moderated by organisational size, recent research has found nAch to be predictive of sales performance (Soyer, Roven, & Kopelman, 1999), performance on intellectual tasks (Phillips, Hollenbeck, & Ilgen, 1996), and goal-setting dimensions such as goals commitment and task involvement (Hollenbeck, Klein, O’Leary, & Wright, 1989). A fourth need, the need for autonomy (nAut), has remained relatively unexplored. However, existing evidence suggests that need for autonomy functions as an important moderator of the autonomy-performance relationship (e.g. Geiger & Cooper, 1995), suggesting that this need is likely to be predictive of performance for positions that require little supervision. Because of these established relationships with job performance, it is likely that organisations would be interested in attracting and selecting employees with high means on these variables (with the exception of low means on nAff). It also seems reasonable that organisations would prefer to
employ groups of individuals who manifest a range of tendencies related
to these traits. For example, individuals with high need for autonomy may
function well as independent research and development scientists, but
employing only individuals with high need for autonomy could make it
difficult for such employees to work cooperatively.

Risk Taking. Individuals vary in their propensity to take risks (e.g. Kamalanabahn, Sunder, & Vasanthi, 2000). Although risk taking has been
ignored for the most part in the selection literature, it is often used in career
counseling programs (e.g. Douce & Hansen, 1988) and is tapped by various
measures of leadership effectiveness (e.g. Morgan, 1989). Moreover, risk taking
is a central concept in compensation. Many modern compensation packages
are geared toward people who desire to take risks (e.g. stock ownership, gain
sharing). Therefore, because the propensity to take risks is likely to affect
employees’ decisions at work (Ahmed, 1985), it seems likely that an organis-
ation would be interested in ensuring that their employees are somewhat risk
seeking on average (moderate means), but that as a group they would manifest
a range of risk-seeking and risk-averse tendencies (i.e. high variance).

METHOD

In Table 1, we preview this study’s methodology by presenting a four-cell
breakdown of the population of potential job seekers. First, individuals
were either attracted or not attracted to a given company, in this case, a
large, multinational organisation. Second, individuals either passed or failed
an initial screening measure. In the current study, the screening measure was

<table>
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<tr>
<th>Interested in Working for Organisation?</th>
<th>Yes</th>
<th>No</th>
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| Achieves Passing Score on Biodata Measure | Cell A: Would be screened in for further consideration and would likely apply  
* n = 31 | Cell B: Would be screened in for further consideration, but would likely not apply  
* n = 35 |
| Does Not Achieve Passing Score on Biodata Measure | Cell C: Would likely apply, but would not be screened in for further consideration  
* n = 73 | Cell D: Would likely neither apply nor be screened in for further consideration  
* n = 75 |

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a validated biographical data form currently in use by this same company. Crossing these two dichotomised variables yielded four cells: cell A, those interested in joining the organisation and who achieve a passing score on a biodata form; cell B, those achieving a passing score on the biodata form but are uninterested in joining the organisation; cell C, those who are interested but would not achieve a passing score; and cell D, those who are uninterested in the organisation and would not achieve a passing score. From an organisational perspective, contrasts between cell A (those most likely to be offered and accept a job) and cells B and C (those with either the requisite attraction or ability) would be particularly instructive.

Participants

Participants in this study were job seekers from a medium-sized university in the mid-western United States who were in their final or penultimate semester prior to graduation. Potential respondents, who were randomly sampled from a complete list of fourth-year students (N = 3749) at the university, were recruited either by phone (n = 339) or by email (n = 109). Because the study was concerned with characteristics of job seekers, it was important to ensure that the participants would likely be searching for a job some time in the near future. Thus, in order to be eligible for participation, individuals had to be graduating by August 2000 (recruitment took place in September 1999) and seeking a full-time job upon graduation. Students who were not planning to graduate or who were planning on attending graduate school following graduation were not eligible for participation. As a whole, then, participants constituted a typical audience for campus recruiters, and thus a particularly suitable choice for research on applicant attraction. Out of 448 individuals who were contacted for recruitment, 94 were ineligible to participate either because they planned to go to graduate school or were not eligible to graduate by August 2000. Fifty-one individuals refused to participate for personal or unspecified reasons. Chi-square tests revealed no significant differences between refusals and participants on gender mix or major. Additionally, 80 participants who had been successfully recruited failed to appear for their testing session. Usable data were thus collected from 223 individuals. Not counting those individuals who were ineligible to participate, this represented a 63 per cent response rate. The final sample was 68.5 per cent female, with a mean age of 22.2 years; these values were consistent with the overall demographics of the university’s senior class.

Procedure

A test administrator met the participants at an agreed-upon time and location. The group of participants that completed the surveys during any single session
ranged in size from 1 to 30. Participants were paid $25 for completing a battery of surveys that included the measures for this study and a job choice task for an unrelated study. As an additional incentive for participation, participants were entered into a raffle for a $250 cash prize. Completing the entire battery of surveys that included the additional decision-making task took approximately one hour.

Quasi-Independent Variables

The screening instrument used in the present study was a professionally developed and validated biographical data form used for selection and for predicting job performance for a variety of management and professional jobs in a major multinational corporation. Forty multiple-choice items were developed based on a rational strategy and keyed based on a combination of rational and empirical strategies. Example items included, “Which of the following publications do you read on a regular basis?” and “How often have you done an experiment of your own design that you considered to be a complete failure?” Multiple validation samples indicated criterion-related validity in the range of \( r = .30 \) to \( r = .40 \) (similar to those found in previous meta-analyses; e.g. Schmitt, Gooding, Noe, & Kirsch, 1984), with criteria ranging from supervisor ratings to achievement within technical and management career systems. Study participants received summary scores ranging from 1 (weak) to 5 (exceptional). The organisation predominately hires individuals who attain scores of 3 or above. Thus, individuals who attained scores of 3 or higher were considered to have achieved a passing score.

Because we used the actual biodata instrument used to screen employees for this organisation, it was important that respondents were unaware that this instrument was connected to any particular organisation. Moreover, knowing which organisation was sponsoring the research while responding to the items on the other measures may have biased responses. We therefore elected to embed the measure of attraction to the organisation in a questionnaire that measured attraction to 10 well-known, multinational organisations. These 10 organisations included the focal organisation and 9 additional companies. We asked respondents to rate and rank the organisations as desirable places to work by indicating 3 most preferred (with a “+” in the blank next to the organisation name) and 3 least preferred organizations (with a “−” in the blank next to the organisation name) and to indicate, using a 5-point scale, the degree to which they would like to be employed at each of the 10 organisations (1 = definitely wouldn’t work there; 5 = definitely would work there). For each organisation, respondents were also asked to indicate if they “never heard of it” by circling a 9 and not using the 1–5 scale of attractiveness.

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Individuals were categorised as being attracted to the focal organisation (i.e. placed in cell A or C in Table 1) if they indicated that this organisation was one of the most preferred organisations and indicated that they either “probably would work there” or “definitely would work there”. All other respondents were categorised as not being attracted to the focal organisation (i.e. placed in cell B or D in Table 1).

Although it is certainly possible that some participants in the current study were not particularly familiar with several of the other organisations (i.e. organisations other than the focal organisation), we felt very confident about the participants’ familiarity with the focal organisation. This organisation’s corporate headquarters was located within 200 miles of the university and had a high level of visibility in the state and within the university community. Furthermore, the organisation typically recruited heavily at the university’s job fairs. Thus, the average student at the university, and especially the average senior-level, job-seeking student, was likely to be quite familiar with the focal organisation.

**Individual Difference Measures**

**Risk Taking.** Risk taking was measured by examining self-reported financial risk taking and sensation seeking. Financial risk taking was measured with a 5-item scale developed by S. Schneider and Lopes (1986). For each item, participants were presented with two options that included sure money and a gamble with the same expected value. An example item was, “Would you prefer $1,600 for sure or a gamble with a 10 per cent chance of winning $16,000?” Gambling responses were scored a 1, whereas sure money responses were scored 0. An individual’s financial risk-taking score was defined as the mean of the five responses.

Sensation seeking was measured with 16 items from Zuckerman (1979). For each item, participants were presented with a pair of options and were asked to indicate the option with which they agreed most. An example item was, “a. I prefer the surface of the water to the depths. b. I would like to go scuba diving.” Responses that indicated sensation seeking were scored a 1, whereas responses that indicated sensation aversion were scored a 0. An individual’s sensation-seeking score was defined as the mean of the 16 responses.

**Manifest Needs.** We measured four manifest needs in the present study: Need for achievement, need for affiliation, need for autonomy, and need for power. Each of the scales contained 5 items from Steers and Braunstein (1976). Example items were “I do my best when work assignments are fairly difficult” (need for achievement), “I pay a good deal of attention to the feelings of others at work” (need for affiliation), “In work assignments,
I try to be my own boss” (need for autonomy), and “I seek an active role in the leadership of a group” (need for power). Participants indicated their agreement with the items on a 5-point scale (1 = strongly disagree; 5 = strongly agree).

Big Five Personality Traits. The Big Five Personality Traits—Agreeableness, Conscientiousness, Extraversion, Emotional Stability, and Openness to Experience—were measured with Saucier’s (1994) 40-item measure (8 items per personality variable). Individuals indicated the degree to which each of 40 adjectives accurately described their personalities (1 = extremely inaccurate; 9 = extremely accurate). Example trait adjectives were: kind (agreeableness), organised (conscientiousness), talkative (extraversion), relaxed (emotional stability), and philosophical (openness to experience).

RESULTS
Table 2 presents means, standard deviations, and intercorrelations for the study’s major variables. Inspection of Table 2 reveals that none of the observed correlations were high enough to warrant concerns about a lack of discriminant validity among the personality variables. Estimated internal consistency reliabilities were generally acceptable; however, it should be noted that reliability estimates for need for achievement, need for autonomy, need for power, and sensation seeking were lower than the .70 value recommended by Nunnally (1978). Interestingly, whether individuals achieved a passing score on the biodata measure was essentially uncorrelated with attraction to the focal organisation, a condition that facilitated testing for interactions between these two variables.

Tests of Mean Differences
We conducted a series of 2 × 2 ANOVAs used to test for mean differences between the four job-seeker types described above. There were several significant main effects of biodata score; that is, individuals who achieved passing scores on the biodata measure (cells A and B in Table 1) differed from those who did not achieve passing scores (cells C and D in Table 1). For example, those who achieved a passing score had higher levels of need for achievement (M_pass = 3.97, SD = .54; M_fail = 3.67, SD = .44), F = 17.84, p < .001, η² = .08; need for power (M_pass = 3.73, SD = .64; M_fail = 3.23, SD = .63), F = 27.74, p < .001, η² = .12; sensation seeking (M_pass = .63, SD = .25; M_fail = .54, SD = .22), F = 5.81, p < .05, η² = .03; and openness to experience (M_pass = 6.99, SD = 1.02; M_fail = 6.41, SD = 1.08), F = 13.48, p < .001, η² = .06. In addition, those who were attracted to the focal organisation had higher levels of extraversion (M_attracted = 6.40, SD = 1.40; M_not-attracted = 6.06,
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<th>M</th>
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<td>.50</td>
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<td>Biodata Score</td>
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<td>3.</td>
<td>Need for Achievement</td>
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<td>.04</td>
<td>-06</td>
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<td>Need for Autonomy</td>
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<td>08</td>
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<td>6.</td>
<td>Need for Power</td>
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<td>.67</td>
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<td>34</td>
<td>39</td>
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<td>-02</td>
<td>09</td>
<td>11</td>
<td>-.08</td>
<td>04</td>
<td>29</td>
<td>(79)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Extraversion</td>
<td>6.23</td>
<td>1.44</td>
<td>11</td>
<td>12</td>
<td>17</td>
<td>31</td>
<td>-.23</td>
<td>45</td>
<td>19</td>
<td>04</td>
<td>(84)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Agreeableness</td>
<td>7.49</td>
<td>1.06</td>
<td>10</td>
<td>-13</td>
<td>-.08</td>
<td>47</td>
<td>-.38</td>
<td>-.07</td>
<td>-.03</td>
<td>04</td>
<td>25</td>
<td>(74)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Conscientiousness</td>
<td>6.78</td>
<td>1.25</td>
<td>05</td>
<td>06</td>
<td>04</td>
<td>-.04</td>
<td>-.14</td>
<td>11</td>
<td>-.37</td>
<td>-.23</td>
<td>04</td>
<td>12</td>
<td>(86)</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Emotional Stability</td>
<td>5.30</td>
<td>1.21</td>
<td>-.21</td>
<td>-.01</td>
<td>01</td>
<td>04</td>
<td>-.14</td>
<td>05</td>
<td>04</td>
<td>-.05</td>
<td>13</td>
<td>21</td>
<td>18</td>
<td>(75)</td>
</tr>
<tr>
<td>13.</td>
<td>Openness to Experience</td>
<td>6.58</td>
<td>1.09</td>
<td>-.08</td>
<td>25</td>
<td>21</td>
<td>-.05</td>
<td>13</td>
<td>05</td>
<td>37</td>
<td>09</td>
<td>02</td>
<td>14</td>
<td>-.19</td>
<td>01</td>
</tr>
</tbody>
</table>

**Note:** Desire to work = Attracted to the focal organisation (0 = not attracted; 1 = attracted). Biodata score coded 0 = fail; 1 = pass. Because of missing data, Ns ranged from 214 to 221. Decimals omitted from correlations for clarity. Reliabilities are in parentheses on the diagonal. Correlations greater than |.13| are significant at \( p < .05 \). Correlations greater than |.18| are significant at \( p < .01 \).
SD = 1.50), F = 3.89, p = .05, η² = .02; and lower levels of emotional stability (M_{attracted} = 5.03, SD = 1.13; M_{not-attracted} = 5.50, SD = 1.24), F = 5.93, p < .05, η² = .03. There were no biodata by attraction interactions, suggesting that the biodata measure and the organisation’s image did not combine to screen out individuals at certain levels of these individual-difference characteristics.

As we noted previously, from an organisational perspective, contrasts between cell A in Table 1 (those in the sample most likely to be offered a job and to accept it) and cells B and C in Table 1 (those with either the requisite attraction or ability) would likely be among the most interesting. Our analyses of these between-cell differences were relatively consistent with the results of the ANOVAs described above, but there were some differences between the two sets of analyses that appear to have been caused by inclusion/exclusion of the least relevant group (group D, those who were not attracted to the organisation and who did not attain a passing score on the screening measure). Comparing cells A and B, those who would be selected and who were attracted versus those who would be selected but who were not attracted, revealed that these two groups differed on extraversion; Individuals in cell A were more extraverted (M = 6.76, SD = 1.31) than individuals in cell B (M = 5.82, SD = 1.45), t = 2.55, p < .05. However, there were no differences between cells A and B on emotional stability, t = −1.28, p > .05, a main effect we had observed in the 2 × 2 ANOVA.

With respect to differences between cells A (likely employees) and C (those who were attracted, but who would be screened out of the selection process by the biodata measure), three of the findings matched those observed in the ANOVAs: Group A was higher than group C on need for achievement, need for dominance, and openness to experience. There were also two between-cell differences that went undetected by the ANOVAs. On average, group A was less agreeable (M = 7.30, SD = 1.15) than group C (M = 7.65, SD = .96), t = −1.97, p < .05, and was also more extraverted (M = 6.76, SD = 1.31) than group C (M = 6.21, SD = 1.42), t = −2.22, p < .05. Finally, unlike the results provided by the ANOVA, there were no differences between cells A and C on sensation seeking, t = 1.67, p > .05. Note that these comparisons capitalise on chance to a degree by ignoring the omnibus test provided by the ANOVA procedure.

Variance Differences: Tests for Homogeneity of Variance

To test the hypotheses regarding differences in variance as a result of attraction, selection, and the attraction × selection interaction, we conducted Brown-Forsythe (1974) tests for heterogeneity of variance. Conover, Johnson, and Johnson (1981) identified the Brown-Forsythe test as one of the strongest (among 56 such tests) in terms of power to detect heterogeneity.
when it exists. In selecting the Brown-Forsythe test over the many other tests for homogeneity of variance, we consciously intended to minimise the likelihood of Type II errors at the cost of increased likelihood of Type I errors. The Brown-Forsythe test is also notable for its insensitivity to departures from normality. Lastly, because of the way that the data are processed for conducting the Brown-Forsythe test, it is a simple matter to examine post-hoc comparisons between pairs of cell variances.

The results of the Brown-Forsythe test indicated that there were similar between-condition variances for all but one of the individual difference variables. The variances for the four groups (i.e. the four cells in Table 1) differed only on need for autonomy, $F = 9.70$, $p < .01$, $\eta^2 = .04$. Furthermore, post-hoc Tukey’s HSD tests revealed that the significant $F$-test was a result of significant differences between cells B (individuals who achieved passing scores but who were not attracted to the organisation, $SD = .67$) and C (individuals who were interested in the organisation but did not achieve passing scores, $SD = .52$) and between cells B and D (individuals who were not attracted and did not achieve passing scores, $SD = .49$). Variances for cell A (individuals who achieved passing scores on the biodata form and who were attracted to the organisation, $SD = .57$) did not differ significantly from the variances for any other group, suggesting that attraction and selection did not interact to restrict variance for the group most likely to enter the organisation. Therefore, hypotheses 1, 2, and 3 were not supported.

As a precautionary measure, we performed several additional analyses to determine whether the results of this study would have changed using a different analytical strategy. We conducted moderated multiple regression analyses using the (original) continuous forms of the attraction variable (coded 1, 2, 3, 4, or 5) and the biodata score variable (also coded 1, 2, 3, 4, or 5, per the organisation’s scoring algorithm) to determine whether our dichotomisation of these variables accounted for our findings. We found that the results of these regression analyses were nearly 100 per cent consistent with the results of the ANOVAs: A few marginally significant main effects became non-significant (and vice versa), but all of the interaction tests failed to reach conventional levels of statistical significance.

**DISCUSSION**

The purposes of this study were twofold. First, we sought to demonstrate a tool that practitioners and organisational decision makers could use, in a relatively covert manner, to assess the individual-difference characteristics of various groups in the population of job seekers. Second, we sought to determine whether the attraction and (early) selection phases of B. Schneider’s (1987) ASA model were the most likely contributors to homogeneity
implicated by several laboratory studies (e.g. Bretz et al., 1989) and the recent field study assessing managers’ personality characteristics (B. Schneider et al., 1998).

Regarding the first purpose of the study, we found that individuals who were attracted to the focal organisation were more extraverted than those who were not, and reported that they were less emotionally stable (i.e. more jealous, anxious, and worrisome) than those who did not have high levels of attraction. Organisational decision makers or other stakeholders might interpret such results as bad news: The organisation’s “image”, construed broadly, does not seem to attract individuals with higher levels of desirable individual-difference characteristics, and even seems to attract individuals who report lower levels of emotional stability than do the remainder of the population of job seekers. On the other hand, however, the near absence of significant findings—the lack of differences between those attracted to the organisation and those less attracted—along with the fact that nearly 50 per cent of the sample reported a strong desire to work at the organisation, could also be seen as quite encouraging. In addition to the fact that the organisation is very appealing as a place to work in an overall sense, it does not appear to attract individuals who are any less conscientious, less achievement-oriented, or less open to experience than their fellow job seekers who are more interested in other organisations. We should note again that when individuals from cell D (individuals who would have been rejected by the organisation) were excluded from the analysis, the effect of attraction on emotional stability was no longer significant.

We also found that individuals who achieved passing scores on the biodata measure generally had significantly higher levels of desirable individual differences, including need for achievement, need for power, sensation seeking, and openness to experience. These findings provide important and encouraging information about the characteristics of those individuals who would be screened in for further assessment by an organisation using this or a similar professionally developed biodata measure. A summary of the activities required for each step in the assessment of recruitment and early screening is presented in Table 3.

With regard to the second issue of interest in this study, we did not find that using this measure as a screening device or the degree to which individuals were attracted to the organisation served to restrict variance on any of the personality variables measured in this study. Brown-Forsythe tests of homogeneity suggested that variances across groups were for the most part quite similar. Furthermore, inspection of standard deviations across the four cells in the $2 \times 2$ grid revealed that, in many cases, the standard deviation for the group that achieved a passing score and was attracted to the organisation was actually the largest of the four values. Although the recent B. Schneider et al. (1998) study showed that between-organisation variance
in personality is in fact higher than within-organisation variance, our results suggested that within-organisation variance would not have been restricted by attraction and screening alone.

Thus, our results illuminate B. Schneider et al.’s (1998) findings, in that they suggest that homogenisation (at least in regard to personality variables) within organisations may primarily occur after the “attraction” phase of the ASA model, and perhaps even after preliminary screening during the “selection” phase. As one reviewer suggested, it is certainly reasonable to expect that these homogenising forces operate during later stages of selection, such as during the interview stage, or even at the stage of job choice (i.e. when individuals must decide whether to accept a job offer). However, it is also possible that post-hire attrition is the major homogenising force in the ASA model, such that individuals are more likely to leave the organisation when it becomes evident from experience that their individual differences do not “fit” with others in the organisation (see e.g. Cable & Parsons, 2001; Chatman, 1989; O’Reilly, Chatman, & Caldwell, 1991). If this is true, organisations may be best advised to continue strong efforts toward developing tolerance for diversity (on a variety of dimensions) among incumbent employees, regardless of their best efforts to this point.

Personality (Buss, 1991; MacDonald, 1998) and organizational (B. Schneider et al., 1995, 1998) psychologists alike seem to support the view that variation in individual differences is adaptive both for work and other types of organisations.
Post-Hoc Analyses

As one reviewer suggested, a stronger test of the ASA model could be undertaken by testing whether attraction leads to homogeneity for any of the organisations studied in this investigation. In order to test for this, first we classified individuals as either attracted to or not attracted to each of the other nine companies, using the same method described for the focal organisation. A respondent was classified as attracted to the organisation if he or she marked a 4 (probably would work there) or 5 (definitely would work there) and marked that organisation as one of the three most preferred organisations. We then conducted Brown-Forsythe analyses for each group to determine whether significant differences in variance existed (for attracted versus not-attracted groups). We found that, in not one of the 99 total statistical tests (tests for differences in variance for 11 individual-difference variables based on attraction to nine organisations) was the variance of the attracted group smaller than the variance of the less attracted group, for any of the individual-difference variables. The only difference between attracted and not-attracted groups was that, for one organisation, the attracted group (SD = 1.80) was more heterogeneous on emotional stability than the not-attracted group (SD = 1.20), $F = 3.89$, $p = .050$. Therefore, the attraction-homogeneity hypothesis was not supported for any of the organisations in this sample. However, the results of these post-hoc analyses must be viewed with caution, because respondents were not likely to be as familiar with the other nine organizations as they were with the focal company.

Limitations, Conclusions, and Implications for Future Research and Practice

Although this investigation sheds light on several important issues related to the effects of attraction and screening in college student recruiting, some of the results are clearly limited by the use of one particular biodata instrument and the concomitant examination of attraction to one particular organisation. For example, it is not clear whether other assessment devices, or even other biodata measures, would provide similar results. It may be that screening using a different selection device, such as a cognitive ability or an integrity test, interacts with attraction to affect means and variances of relevant individual-difference variables for those selected into the organisation. Future research could help to answer these questions by examining the potential effects of various different screening devices and by following college recruits further into the selection process (e.g. through the stages of personal interviews and job choice).

On a related note, the fact that attraction to the organisation and achieving a passing score on the biodata instrument were practically uncorrelated
may be anomalous. That is, college recruits may be attracted to particular organisations because they believe it is likely that they would be hired there, or perhaps inadvertently, organisations may screen on variables that are related to attraction. This potentially limits the generalisability of the findings presented here. Moreover, as another reviewer noted, the study would have been much stronger if we were able to test the research questions using screening tools from several different companies. However, practicality may prevent researchers from gaining access to organisations’ selection instruments.

Two additional limitations concern measurement issues. First, the reliability of some of the measures was quite low, especially the manifest needs scales. In future research that examines manifest needs, researchers would likely be better off using newer, more reliable versions of these scales, such as those developed by Heckert et al. (2000). Second, although participants were likely to be very familiar with the focal organisation in this study, they could effortlessly indicate attraction for a company without the costs typically involved in actual job search. There may be better ways of assessing individuals’ attraction to organisations. Sinar and Highhouse (2000) assessed job pursuit behavior by asking participants to respond with their name, email address, and year in school if they wished for a particular company to contact them about internships, co-op programs, and full-time job opportunities. Operationalising attraction in this way may be more appropriate than the operationalisation used in the current investigation, and it may be that one would find different results using a different measure of attraction.

A final limitation concerns the practical usefulness of the tool we present in the current study. As one reviewer noted, although with this tool we were able to determine the kinds of people the organisation attracts, there is little information presented on the difference between what the organisation wants and the kind of applicants it gets. It would perhaps be more helpful to determine the size of the gap by interviewing or surveying key human resources personnel or major organisational decision makers regarding the KSAs they perceive to be most important, and then, based on the results of a study like the one we present here, one would be able to better judge recruitment and selection effectiveness. Attempts at this sort of gap analysis are certainly a step beyond our efforts to determine which KSAs should be included.

The limitations we have mentioned should be judiciously balanced against the strengths of the study. First, through careful sampling, we obtained a sample of respondents who could be considered to be quite representative of a population of individuals that are actively recruited by large organisations as entry-level employees. Second, we used an organisation’s intact screening instrument with demonstrated validity across a variety of managerial and
professional job types. Finally, we fielded a large and diverse battery of validated personality and motivational measures that allowed us to make substantive conclusions about our two major research questions.

It also seems reasonable to suggest that the general methodology we adopted to study these issues may be useful for a variety of different organisations as a way of assessing potential homogenising effects of their recruitment and selection efforts, and, when combined with the gap analysis described above, may provide important information about the effect of an organisation’s recruitment and screening efforts. For example, the cutoff scores on first-hurdle screening devices are not set in stone. The interested researcher or practitioner could experiment with the effects of raising or lowering the cutoff score on the characteristics of those screened in for further assessment. As another example, we used a fairly strict definition for attraction to the organisation, but one could examine the implications of loosening that definition for the characteristics of individuals who are or are not attracted to the organisation. As labor markets ebb and flow over the coming years, practitioners will continue to need new tools to examine emerging questions about the effectiveness of their recruiting and selection programs.

REFERENCES


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