They Don't Do It Often, But They Do It Well: Exploring the relationship between applicant mental abilities and faking

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Despite its scientific and practical importance, relatively few studies have been conducted to investigate the relationship between job applicant mental abilities and faking. Some studies suggest that more intelligent people fake less because they do not have to. Other studies suggest that more intelligent people fake more because they have increased capacity to fake. Based on a model of faking likelihood, we predicted that job candidates with a high level of mental abilities would be less likely to fake a biodata measure. However, for candidates who did exhibit faking on the biodata measure, we expected there would be a strong positive relationship between mental abilities and faking, because mental abilities increase their capacity to fake. We found considerable support for hypotheses on a large sample of job candidates ($N = 17,368$), using the bogus item technique to detect faking.

1. Introduction

Faking or intentional response distortion has been studied extensively in the last several decades. Many studies have been conducted to explore personality correlates of faking such as conscientiousness (McFarland & Ryan, 2000; Salgado, 2002), extraversion (Kashy & DePaulo, 1996; Riggio, Tucker, & Throckmorton, 1988), agreeableness (Grubb & McDaniel, 2007), integrity (Ones, Viswesvaran, & Schmidt, 1993), Machiavellianism (Grover, 1997; Kashy & DePaulo, 1996), self-monitoring (Snyder, 1974), and need for approval (Jacobson, Berger, & Millham, 1970). Yet, relatively few studies have been conducted to examine the relationship between mental abilities and faking. This is surprising because mental abilities have been shown to be related to a number of important outcomes, such as job performance (Hunter, 1986; Hunter & Hunter, 1984; Ree & Earles, 1992; Schmidt & Hunter, 1998), job knowledge and success at training (Schmidt & Hunter, 1992), rule-breaking and criminal behaviors (Gottfredson & Hirschi, 1990; Jensen, 1998), and counter productive work behaviors (Dilchert, Ones, Davis, & Rostow, 2007).

The results of existing studies suggest that faking and mental abilities are related, but there are inconsistencies in the prediction of the direction of their relationships. Some studies suggest that people with a high level

of mental abilities fake more and they are better at faking (Lao, 2001; Mersman & Shultz, 1998; Pauls & Crost, 2005). Other studies suggest that people with a high level of mental abilities fake less (Egan, 1989; Ones, Viswesvaran, & Reiss, 1996). A key difference between these studies, however, is the research design used.

For example, studies that have used experimental designs and instructed participants to take personality measures under different instructions (e.g., fake good, fake bad, respond honestly) have shown that individuals who are higher in mental abilities have higher ability to fake and respond to personality questions with more distortion (Bing, Whanger, Davison, & VanHook, 2004; Furnham, 1986; Grubb & McDaniel, 2007; Kimber, 1947; Lao, 2001; Noll, 1951; Stricker, 1969). Thus, these researchers argue that faking is a function of the respondent's mental abilities. Different explanatory mechanisms for the outcomes have been proposed. Some researchers have suggested that individuals with high mental abilities may have better comprehension of personality items and therefore are more capable of constructing a successful faking strategy (Austin, Hofer, Deary, & Eber, 2000). Still others argue that individuals with high mental abilities may be better at recognizing the specific situational requirements and the opportunity to engage in faking (Grubb & McDaniel, 2007; Pauls & Crost, 2005).

Yet, non-experimental field studies have failed to support the finding of experimental studies that there is a positive relationship between faking and mental abilities. In fact, non-experimental studies suggest that more intelligent people are less likely to fake or they fake to lesser extent. For example, Eysenck (1971) administered 398 trainee male nurses, two mental abilities tests, and a personality inventory. He found that mental abilities were correlated negatively with the Lie scale[1]. This early discovery was replicated by Egan (1989) on 94 trainees of the Youth Training Scheme. In addition, Austin *et al*. (2002) found a significant negative correlation between the Eysenck Lie scale and mental abilities on a sample of 3260 adults. Also, the results of a recent meta-analytic study (Ones *et al*., 1996) suggest that there is no correlation between mental abilities and social desirability ($r = -.03$; $N = 18{,}612$). Ones and colleagues concluded that individuals who are expected to be 'test smart' do not have a tendency to respond in a more socially desirable manner.

2. Understanding the components of faking likelihood

A model of faking likelihood could be used to account for the inconsistencies in the direction of the relationship between mental abilities and faking (Levashina & Campion, 2006; McFarland & Ryan, 2000). This model suggests that faking can be conceptualized as a joint function of a candidate's willingness to fake, capacity to fake, and opportunity to fake. Willingness to fake refers to the degree to which candidates are inclined to distort their response on a measure and includes motivation and personality. Capacity to fake refers to the capabilities (e.g., mental abilities) that enable job candidates to fake effectively. Finally, the opportunity dimension refers to certain environmental factors (e.g., types of measure) beyond the applicant's direct control that enable or constrain faking. All three elements must be present to some degree for faking to occur. Faking will usually not occur in the total absence of any one of the three dimensions. For instance, candidates who are willing to fake and capable of faking do not fake mental ability tests because such tests do not provide an opportunity to intentionally increase scores or to fake. In addition, candidates who possess a higher level of mental abilities would be better able to recognize the opportunity to fake and develop a better strategy. Yet, such high ability candidates would not fake if they are not willing to fake.

According to this model, in experimental studies faking is primarily a function of one determinant of faking likelihood, a participant's capacity to fake. During experiments, participants are instructed to fake a personality measure or to present themselves as possessing necessary job-related personality traits. Therefore, their faking is a function of their ability because all participants are willing to fake (if they follow the experimental instructions) and the opportunity to fake is given to all of them. Thus, individual differences in the ability to fake (e.g., better comprehension of test items, ability to construct and consistently follow a successful faking strategy) should result in more effective faking or a higher score on a measure.

In non-experimental field studies (Austin *et al*., 2002), however, all three factors (willingness, ability, and opportunity) are relevant. As such, faking is less likely to be simply a function of ability. The finding that people with high mental abilities fake less might be explained as they are not willing to engage in faking. They might have high self-efficacy and believe that their high mental abilities will likely be sufficient to secure a high test score (De Fruyt, Aluja, Garcia, Rolland, & Jung, 2006). In this type of situation, willingness plays a much more important role because high mental ability applicants are capable of faking and probably could recognize the opportunity to fake (as demonstrated in experimental studies; Furnham, 1986; Kimber, 1947; Lao, 2001; Noll, 1951; Stricker, 1969).

Preliminary empirical evidence for this idea was provided by several studies that examined the relationship between students' cheating and mental ability measures such as academic achievement or course grades (Antion & Michael, 1983; Scheers & Dayton,

1987; Whitley, 1998). The results of these studies are fairly consistent. Students with lower prior achievement or grades are more likely to cheat; students with higher prior achievement or grades are less likely. Students with high abilities are less willing to cheat because they expect to do well even without cheating, and they do not see the potential gain of cheating to be worth the risk associated with engaging in cheating (e.g., being caught). On the other hand, students with low abilities are more willing to cheat because they have low self-efficacy and perceive the potential gain of cheating to be worth the risk. Because students want to appear competent in schools to their peers and teachers (Anderman, Griesinger, & Westerfield, 1998), cheating may help them to appear to do well on a test and maintain the outward appearance of doing well.

Another explanation of why people with high mental abilities are less likely to fake is that they might try to impose an explanation for the situation and this works against them. They are more likely to consider all possible consequences of their actions and choose those most beneficial to them (White, Moffitt, & Silva, 1989). For example, they might reason that because faking is so easy, there must be a mechanism to detect faking (e.g., lie scale), so they should not fake as much as they could. On the other hand, people with low mental abilities are less likely to anticipate and evaluate all possible consequences of their actions and thus they fake.

Finally, it is possible that candidates with high mental abilities only selectively fake or inflate the answers to certain types of items in a measure. For example, they may fake or inflate their scores on items that they perceive to be important for job success or could be used to create the best job candidate image in a way that minimizes faking detection, thereby appearing similar to the scores for candidates who honestly emphasize their strengths (Vasilopoulos, Cucina, & McElreath, 2005). Candidates with low mental abilities, however, may uniformly inflate the answers to all items because they are less capable of considering a selection measure as multi-facetted (Austin *et al*., 2000). This suggests that candidates with high levels of mental abilities are less likely to fake a selection measure in a field setting. For candidates who are willing to fake, however, mental abilities will help them to fake successfully, suggesting there will be a positive relationship between faking and mental abilities, as demonstrated in experimental studies.

3. Faking on biodata measures

The selection procedure examined in the current study is biodata. In the last several decades, industrial–organizational psychologists have devoted extensive effort to studying the prevalence and effects of faking on personality measures. This research consistently demonstrates that candidates are able to fake personality measures by recognizing the correct, job-related, or preferred answers, and artificially inflate their scores (Douglas, McDaniel, & Snell, 1996; Furnham, 1986). Yet, relatively little research has been conducted on faking of other common selection tools, such as biodata measures. This omission is notable for two reasons. First, biodata measures are widely used in hiring contexts. Second, and more importantly, there is some evidence that biodata might be a more fakable noncognitive measure than personality and integrity measures (McFarland & Ryan, 2000). This is particularly true for biodata measures that use rational scaling procedures as opposed to empirical scaling procedures (Kluger, Reilly, & Russell, 1991; Mael & Hirsch, 1993; Stokes & Searcy, 1999). In an empirical scaling strategy, items are selected and weighted based on their statistical ability to differentiate membership in higher and lower performing criterion groups (Hogan, 1994). Each item response alternative is often analyzed separately and contributes to the total score only if it correlates significantly with the criterion (Kluger *et al*., 1991). One of the results of this scoring method is that the most extreme response may not get the highest score, thus making it more difficult to positively impact test performance via faking. In a rational scaling strategy, however, biodata item inclusion and scoring is based on the test developer's judgment of the relevance of the item to the characteristic or constructs being investigated along with traditional psychometric test construction considerations like item–total correlations and internal consistency reliability (Allworth & Hesketh, 1999). As such, rationally developed biodata items tend to appear more face valid and logically related to their intended constructs. This makes the correct answer more transparent to test takers.

Because of these differences, a rationally scored biodata instrument is much easier to fake. This potential for faking is one of the challenges associated with using rationally scored biodata instruments, prompting scholars to develop procedures designed to reduce faking (Schmitt & Kunce, 2002; Schmitt *et al*. 2003). Rational approaches to development and scoring of biodata measures have received increasing attention because of their legal defensibility (Sharf, 1994), construct validity (Mumford & Stokes, 1992), and generalizability from incumbent to applicant samples (Stokes, Hogan, & Snell, 1993).

Most studies investigating the faking of biodata measures have used a 'directed faking' paradigm, where participants were instructed by the experimenter to fake (Doll, 1971; Graham, McDaniel, Douglas, & Snell, 2002; Kluger *et al*., 1991; Schrader & Osburn, 1977). Typically, differences in mean responses between 'honest' and 'faking' conditions have been used to detect

response distortion. These studies suggest that participants are able to substantially increase their scores when given instructions to fake. Moreover, Kluger *et al.* (1991) found that when instructed to fake, research participants were able to improve their scores on a biodata measure by 1 standard deviation (*SD*). Although it is unclear to what extent actual candidates fake on biodata measures (Becker & Colquitt, 1992; Kluger & Colella, 1993; Lautenschlager, 1994; Stokes *et al*., 1993), it is reasonable to expect that actual candidates may also fake and increase their scores on a biodata measure, particularly on a rationally keyed biodata measure. Given the above research findings and the aforementioned model of faking likelihood (Levashina & Campion, 2006), we propose the following hypotheses.

Hypothesis 1: Candidates who fake will obtain higher scores on a biodata measure.

Hypothesis 2: Candidates with high levels of mental abilities will be less likely to fake on a biodata measure.

Hypothesis 3: For candidates who chose to fake, there will be a stronger positive relationship between mental abilities and a score on a biodata measure when compared with the relationship found for those who chose not to fake.

4. Method

4.1. Sample

The sample consisted of 17,368 job candidates for professional entry-level US government jobs. These positions entail working with the public, government officials, and members of the business community in both the United States and foreign countries, in one of the several different career tracks (e.g., general management, economic and political analysis, and public relations). Thirty-nine percent were female, and a mean age of applicants was approximately 25 years. Ethnic backgrounds represented were White (73%), Asian (9%), Black (9%), Hispanic (8%), and other ethnic backgrounds (1%). Approximately 89% of the applicants had bachelor's degrees.

4.2. Measures

The rational biodata instrument consisted of 88 five-point Likert-type items that asked candidates to describe their background and life history. The biodata instrument was designed to measure life experiences and typical behaviors in situations important to successful job performance in the target jobs, including interactions with others, adaptability, initiative or persistence, leadership, and so on. Typical biodata items were 'When you have first moved into a new place, how much time have you spent exploring your new surroundings? (5 = a great deal of time, 1 = very little time),' 'To what extent have you played a key role in settling project related disagreements among team members? (5 = to a very large extent, 1 = to no extent).' Internal consistency reliability of the biodata measure was .95.[2]

Of the items, 35 required respondents to elaborate by providing written support for their responses (Schmitt & Kunce, 2002). The recently proposed method of reducing score inflation on biodata measure is to require respondents to elaborate their responses (Schmitt & Kunce, 2002; Schmitt *et al*., 2003). Schmitt and Kunce (2002) argued that the required elaboration of biodata items may decrease intentional response distortion (e.g., exaggeration, lying) because candidates are asked to indicate previous experiences that can verify and support their answers. Also, it may force applicants to remember more accurately and to avoid unintentional response distortion (e.g., self-deception). A typical elaborated biodata item was 'In the last months how often have you read about cultures different from your own (e.g., ethnographies, *National Geographic*)? (A = very often, E = never). If you answered A, B, C, or D (seldom), list the cultures and the materials read. List no more than four.'

Faking on the biodata measure was assessed through the use of bogus items. This involves asking job candidates to assess their familiarity with non-existent tasks, events, and principles. Several studies in various domains have shown that bogus items can help identify individuals who provide dishonest responses (Anderson, Warner, & Spencer, 1984; Carroll, Jones, & Sulsky, 2004; Morgeson, Delaney-Klinger, Mayfield, Ferrara, & Campion, 2004).

Three bogus items were developed that appeared to be legitimate job-related biodata questions, however, they described non-existent aspects of the job. They were: (1) 'In the last year, how many times have you used Form INTL-453 to request information from a U.S. government agency about a foreign country?' (there is no such form), (2) 'How often have you used the Wentzel Technique to solve a budgetary problem?' (this is a fictitious technique), and (3) 'To what extent have you used Johnson's Dyadic Approach of avoiding conflict in work teams?' (this is a fictitious approach). In addition, the second item required elaboration. This was done in order to rule out an alternative explanation that a candidate might endorse an item due to carelessness. Elaborations that provide supporting information to justify their answers would seem hard to explain based on carelessness.

To be perceived as legitimate biodata questions, the bogus items were similar to other biodata items, had

the same rating scale, and were embedded among the other biodata questions. To ensure that they described non-existent aspects of the job, the bogus items were independently reviewed by five subject matter experts. In addition, the names in these bogus items were searched on Google and Wikipedia to ensure that they had no other potential meanings and can be unambiguously interpreted as bogus.

Candidates who endorse at least one of the bogus items are assumed to be faking. For example, a response to bogus item 3 of '1 = to no extent' was operationalized as non-endorsement, whereas 2–5 responses were classified as endorsement. The bogus items were not included in calculating the biodata total scores that were used for both hiring purposes and in the current analyses. Finally, candidates were warned that their responses could be verified and that any attempts to falsify information would be used as a basis for not employing them or dismissing them after they have begun work. However, candidates were not informed about the bogus nature of some of the questions.

Mental abilities were measured with two tests: a verbal ability test and an entry-level job knowledge test. First, typical intelligent tests largely measure verbal abilities, including vocabulary, verbal reasoning, and analogies (Anastasi & Urbina, 1997; Ree, Carretta, & Teachout, 1995). The verbal ability test consisted of 65 multiple-choice items that measured word usage, vocabulary, verbal reasoning, writing style, organization, and sentence structure. All items had four options. Internal consistency reliability was .92. Second, past research has demonstrated that job knowledge is a direct function of mental abilities, and these types of knowledge are acquired as a consequence of mental abilities (Borman, White, Pulakos, & Oppler, 1991; Hunter, 1983; Schmidt, Hunter, & Outerbridge, 1986). The entry-level job knowledge test measured basic academic knowledge relevant to the jobs in question in several disciplines, including political science, economics, history, geography, and so on. The job knowledge test consisted of 70 multiple-choice items. All items had four options. Internal consistency reliability was .92. The scores on the biodata, the job knowledge, and verbal ability tests were reported in terms of standardized scores (mean of 100 and *SD* of 10) for easier interpretation.

5. Results

Table 1 provides the means, *SD*s, intercorrelations, and coefficient α reliabilities of the variables used to test our hypotheses. Twenty-four percent of job candidates tried to fake the biodata measure by endorsing at least one bogus item, 8% endorsed at least two bogus items, and 1% endorsed all three bogus items. Additionally, job candidates endorsed bogus items in different ways. Bogus item 1 ('In the last year, how many times have you used Form INTL-453 to request information from U.S. government agency about a foreign country?') was endorsed by 2% of job candidates, bogus item 2 ('How often have you used the Wentzel Technique to solve a budgetary problem?') with required elaboration was endorsed by 9% of job candidates, and bogus item 3 ('To what extent have you used Johnson's Dyadic Approach of avoiding conflict in work teams?') was endorsed by 21% of job candidates.

Table 1. Means, standard deviations and intercorrelations of scores on biodata, job knowledge, verbal ability, and bogus items

Variables	*M*	*SD*	1	2	3	4	5
1. Biodata[a]	99.95	10	(.95)				
2. Job knowledge[a]	99.95	10	.15	(.92)			
3. Verbal ability[a]	99.96	10	.18	.60	(.90)		
4. Bogus item 1[b]	1.04	.34	.06	−.11	−.16	–	
5. Bogus item 2[c]	1.15	.52	.15	−.14	−.17	.13	–
6. Bogus item 3	1.36	.80	.19	−.15	−.17	.13	.42

Notes: $N = 17{,}368$. Cronbach's α coefficients are in parentheses. All correlation coefficients are statistically significant at $p < .0001$. [a]Scores are reported in terms of standardized scores with mean of 100 and *SD* of 10. [b]Bogus items were measured with a 5-point rating scale. [c]Bogus item 2 required candidates to elaborate their responses.

To test our hypotheses, we placed candidates into four groups based on their endorsement of the bogus items. The Honest Group consists of candidates who did not endorse any of the bogus items. Faking Group 1 consists of candidates who endorsed one bogus item. Faking Group 2 consists of candidates who endorsed two bogus items. Faking Group 3 consists of candidates who endorsed three bogus items. Table 2 provides information on means and *SD*s on the biodata, verbal ability, and job knowledge test scores across different faking groups.

Hypothesis 1 stated that candidates who endorse bogus items will obtain higher scores on the biodata measure. To test this hypothesis, we performed analysis of variance (ANOVA) with the total score on the biodata instrument as the dependent variable and faking group membership as the independent variable. The one-way ANOVA revealed a significant group membership effect, $F(3, 17{,}364) = 284.74$, $p < .0001$, $\omega^2 = .041$. Next, we performed multiple comparisons of means across the four groups of candidates (Table 2). A Tukey–Kramer test was used because of unequal group sizes. This test revealed that the means of biodata scores of all faking groups were significantly greater than the mean of the Honest Group (all *t* ratios were significant at *p*'s $< .0001$). Moreover, the means of the three faking groups were significantly different from each other ($p < .05$), and job candidates who endorsed more bogus

Table 2. Means and standard deviations of test scores on biodata, job knowledge, and verbal ability across four faking groups

Groups	N	Biodata			Job knowledge			Verbal ability		
		M	*SD*	*d*	*M*	*SD*	*d*	*M*	*SD*	*d*
Honest Group	13,212 (76%)	98.88	9.78		100.90	9.43		101.09	8.75	
Faking Group 1	2830 (16%)	102.29	9.76	.35	97.76	10.80	−.31	97.56	11.52	−.42
Faking Group 2	1217 (7%)	105.32	10.09	.65	95.67	11.72	−.49	94.80	13.98	−.60
Faking Group 3	109 (1%)	108.24	10.85	.91	89.36	14.47	−.94	83.63	19.84	1.19

Note: All means are statistically different across the four faking groups for all measures, $ps < .05$. Honest Group (candidates did not endorse bogus items); Faking Group 1 (candidates endorsed one bogus item); Faking Group 2 (candidates endorsed 2 bogus items); Faking Group 3 (candidates endorsed three bogus items). Bogus items were not included in the biodata total score. d = standardized mean difference between scores for each faking group minus scores in the Honest Group.

items obtained higher scores on the biodata measure. Therefore, Hypothesis 1 was fully supported.

Hypothesis 2 stated that candidates with higher levels of mental abilities will be less likely to fake on the biodata measure. To test this hypothesis, we performed two ANOVAs. First, we performed ANOVA with the total score on the job knowledge test as the dependent variable and faking group membership as the independent variable. ANOVA revealed a significant group membership effect, $F(3, 17{,}364) = 160.85$, $p < .0001$, $\omega^2 = .034$. Next, we performed multiple comparisons of means of the job knowledge test scores across the four groups of candidates by using a Tukey–Kramer test. This test revealed that the mean of the job knowledge test of the Honest Group was significantly greater than the means of scores across the three faking groups (all t ratios were significant at $ps < .0001$). Moreover, the means of the three faking groups were significantly different from each other at $p < .0001$, with more faking associated with less job knowledge (Table 2). Second, we performed ANOVA with the total score on the verbal ability test as the dependent variable and faking group membership as the independent variable. This also revealed a significant group membership effect, $F(3, 17{,}364) = 267.58$, $p < .0001$, $\omega^2 = .053$. Multiple comparisons of means of the verbal ability test scores across the four groups of candidates revealed that the mean of the job knowledge test of the Honest Group was significantly greater than the means of scores across three faking groups (all t ratios were significant at $ps < .0001$). Further, the means of three faking groups were significantly different from each other at $p < .0001$, with more faking associated with less verbal ability (Table 2). Thus, Hypothesis 2 was fully supported.

An alternative way to examine Hypotheses 1 and 2 is to examine each bogus item separately (rather than create a series of faking groups). We thus performed three ANOVAs where biodata, job knowledge, and verbal ability were the dependent variables and the particular bogus item endorsement (item 1, 2, or 3) was the independent variable (Table 3). We found the expected differences between those who endorsed the bogus items compared with those who did not endorse the bogus item for all three bogus items. Specifically, those who endorsed each of the bogus items score higher on the biodata instrument and were lower in job knowledge and verbal ability. There was some evidence that job candidates who endorse bogus item 1 (which was a more verifiable item) had particularly low verbal ability when compared with those who did not endorse any of bogus items and those who endorsed bogus item 2 or bogus item 3. In fact, the standardized mean differences between these groups range from .25 to .79. These findings provide some support to the notion that job candidates with higher level of mental abilities might fake in more subtle, less detectable ways.

Hypothesis 3 stated that for candidates who fake, there will be a stronger positive relationship between mental abilities and biodata score. To test this hypothesis, we performed two analyses: moderated regression analysis and comparison of correlations.[3] First, two moderated regression analyses were conducted. Biodata scores were regressed on the faking measure, the job knowledge test, and their interaction. We found a significant faking by job knowledge test interaction, $t(17{,}364) = 4.15$, $p < .0001$. Also, biodata scores were regressed on the faking measure, verbal ability, and their interaction. We found a non-significant faking by job knowledge test score interaction, $t(17{,}364) = 1.32$, $p = .19$. Second, we computed correlations of biodata scores with the job knowledge test and the verbal ability test scores for each faking group and Honest Group and then compared those correlations using a test of the difference between correlations from independent samples (Blalock, 1972, pp. 406–407). The results are presented in Table 4. The comparison indicated that the job knowledge test–biodata correlation of .17 for the Honest Group was significantly smaller than the job knowledge test–biodata correlations in each of the three faking groups (all z ratios were significant, $p < .05$).

The correlations between job knowledge and biodata increased as the amount of faking increased and they were significantly different from each other ($p < .05$) except for the correlations for Faking Group 2 and

Table 3. Means and standard deviations of test scores on biodata, job knowledge, and verbal ability across job candidates who endorse different bogus items

Bogus items	Biodata			Job knowledge				Verbal ability			
	M	*SD*	d_1	*M*	*SD*	d_1	d_2	*M*	*SD*	d_1	d_2
Bogus item 1											
Endorsed ($N = 366$)	104.26	11.41		92.44	13.87			88.94	17.56		
Not endorsed	99.86	9.97	.41	100.11	9.89	−.64		100.20	9.71	−.79	
Bogus item 2											
Endorsed ($N = 1642$)	104.60	10.21		95.72	11.84		−.25	94.74	14.13		−.36
Not endorsed	99.46	9.87	.51	100.39	9.74	−.43		100.51	9.39	−.48	
Bogus item 3											
Endorsed ($N = 3583$)	103.64	9.94		97.05	11.17		−.37	96.59	12.69		−.50
Not endorsed	98.99	9.81	.47	100.71	9.60	−.35		100.84	9.07	−.39	

Note: $N = 17{,}368$. All means are statistically different, $p < .05$. d_1 = standardized mean difference between scores in each endorsed and not endorsed bogus item groups, d_2 = standardized mean difference between scores of candidates who endorsed bogus item 1 and scores of candidates who endorsed bogus item 2 and bogus item 3.

Table 4. Correlation coefficients between biodata, job knowledge and verbal ability across four faking groups

Group	Job knowledge and biodata	Verbal ability and biodata
Honest Group	$.17_a$	$.20_a$
Faking Group 1	$.24_b$	$.30_b$
Faking Group 2	$.31_c$	$.37_c$
Faking Group 3	$.40_c$	$.39_{bc}$

Note: All correlation coefficients are significant at $p < .0001$. Correlation coefficients with different subscripts are significantly different ($p < .05$). Honest Group (candidates did not endorse bogus items); Faking Group 1 (candidates endorsed one bogus item); Faking Group 2 (candidates endorsed 2 bogus items); Faking Group 3 (candidates endorsed three bogus items). Bogus items were not included in the biodata total score.

Faking Group 3. A similar pattern was discovered for the correlations between biodata and the verbal ability test across the four groups. The correlation between biodata and the verbal ability test of .20 for the Honest Group was significantly smaller than the correlations in each of the three faking groups (all *z* ratios were significant at $p < .05$). Among the faking groups, Faking Group 3 has the highest job knowledge–biodata correlation ($r = .39$), whereas Faking Group 1 has the lowest correlation ($r = .30$) but they were not significantly different except for the correlations for Faking Group 1 and Faking Group 2. Thus, results of moderated regression analyses and comparison of correlations show that higher levels of mental abilities are an asset for candidates who chose to fake. As faking increased, the relationship between mental abilities and scores on the biodata measures also increased, which provided support for Hypothesis 3.

To understand the faking phenomenon in more depth, a content analysis of elaborations was performed. A random sample of 50 of the elaborations to the second bogus item were obtained for candidates who responded affirmatively that they used the fictitious budgetary technique 'often' or 'very often.' A content analysis of elaborations leads to the following observations. First, 44% of candidates left the elaboration for the second bogus item blank despite the fact that they completed the elaborations for non-bogus items on the same page that required elaboration. Second, 14% of candidates indicated that they did not know the technique in the elaboration section (e.g., by putting a question mark next to the name or stating they did not recognize), yet they still indicated performing it often or very often on the answer sheet. For example, one candidate endorsed 'often' on the answer sheet but stated 'Don't know what the technique is, but have most likely used it often' in the elaboration section. Third, most of the answers were very vague, work related (e.g., to manage funds, allocate resources), and were written in such poor handwriting that they were almost unreadable. These observations suggest that the affirmative answers to the bogus items were probably intentional and not inadvertent mistakes due to carelessness.

6. Discussion

In the current research, we sought to explore the extent to which faking on a biodata measure is related to test performance, the extent to which candidates with high ability exhibit faking, and the relationship between mental abilities and faking. Hypothesis 1 stated that candidates who fake will obtain higher scores on a biodata measure. To test this hypothesis, we used a common procedure for detecting response distortion

in experimental studies by examining the difference in means of biodata scores between four groups of candidates who were assigned to a particular group based on their endorsement of bogus items. Consistent with Hypothesis 1, we found that actual candidates who fake by endorsing at least one of the bogus items obtain higher scores on the biodata measure. Candidates who endorsed all three bogus items artificially increased their scores on the biodata measure by almost a full *SD* compared with the scores of candidates who did not endorse any bogus items ($d = .91$). These results provide additional evidence of the construct validity of our bogus item measure of faking.

Also, consistent with Hypothesis 2, we found that candidates with high levels of mental abilities are less likely to fake. Candidates who did not fake on the biodata measure scored about 1 *SD* higher on job knowledge ($d = .94$) and verbal ability ($d = 1.19$) compared with candidates who faked the biodata measure. Finally, higher levels of mental abilities proved to be an asset for candidates who chose to fake. As faking increased, the relationship between mental abilities and scores on the biodata measures increased.

There are several theoretical and practical implications of this research. First, we directly investigated the relationship between mental abilities and faking in a high-stakes selection context for highly desirable jobs. Moreover, Hypotheses 2 and 3 were actually tested twice (i.e., with two measures of mental abilities) with similar results. Our results suggest that candidates with high levels of mental abilities are less likely to engage in faking or fake less in an actual selection situation. At the same time, for those who chose to fake, mental abilities help individuals to inflate scores on the biodata more compared with candidates lower in mental abilities.

Second, this study contributes to a better understanding of actual job candidates' faking. The majority of past research on faking has been conducted in experimental settings and has indicated that actual candidates tend to fake much less than students in experimental situations. Moreover, some of the studies found little or no evidence of faking of actual candidates (Abrahams, Newman, & Githens, 1971; Schwab & Packard, 1973). The results of our study indicate that 24% of candidates exhibited some degree of faking on the biodata measure. Yet we also found that candidates do not fake to the same extent. In fact, only 1% of candidates endorsed all three bogus items. Also, the effect size of faking on biodata scores across the four groups ranged from .35 to .91.

Third, we utilized bogus items as a way to detect faking. This technique is a promising but underresearched approach to detect faking that has several strengths that warrant further research attention (see also Morgeson *et al*. 2007). For example, this is an unambiguous measure of faking. When job applicants endorse bogus items and claim experience or familiarity with something that does not exist, it gives a clearly interpretable indication of faking. Conversely, widely used social-desirability scales are less capable of this (Bing, LeBreton, Davison, Migetz, & James, 2007). People who have a tendency to behave in socially desirable ways may obtain higher scores on social-desirability scales without engaging in faking. Thus, the bogus item technique allows one to study the faking that occurs in applicant settings. Although faking has been studied extensively in the experimental settings in the past, some research indicates that experimentally induced faking is more extreme in the amount and less subtle than faking that occurs in applicant settings (Kroger & Turnbull, 1975). Moreover, bogus items can be developed to fit various types of measures and be embedded within those measures unobtrusively. When test takers do not differentiate real and bogus items, one can infer that real items were also faked when candidates endorse bogus items.

In addition, the bogus item technique allows identification of faking at an item level and not the scale level (either through mean differences in scores under experimental conditions of 'fake good' vs 'be honest' or socially desirability scales). Zickar and Robie (1999) argued that faking is an item-level phenomenon because people fake individual items. Therefore, it should be studied at the item level. Also, the bogus item technique allows researchers to measure the extent or the amount of faking, not just the occurrence of faking. The amount or extent of faking could be measured as the number of bogus items endorsed. For example, candidates who consistently endorse all of the bogus items embedded in a selection instrument can be identified as faking to a greater degree compared with candidates who only endorse one of the bogus items. Finally, because bogus items capture the claim of impossible experiences, they may measure fabrication of information or lies as opposed to other types of faking (e.g., omission, exaggeration). Job applicants who endorse bogus items and thus demonstrate deceptive behavior potentially could be legitimately removed from the applicant pool.

Fourth, one of the unexpected results of this study was that bogus items were endorsed in different ways. Bogus item 1 was endorsed by 2% of candidates, bogus item 2 was endorsed by 9% of candidates, and bogus item 3 was endorsed by 21% of candidates. Different endorsement may be a function of verifiability and objectivity of the bogus item. The first bogus item asked candidates to indicate *the number of times* they used a specific form (zero, one, two, etc.). The second bogus item asked candidates to estimate *how often* they used a technique (never, almost always). Finally, the third bogus item asked candidates to estimate *the extent to* which they have used an approach (to no extent, to a

great extent). According to the research on faking of biodata measures, verifiable and objective items are faked less (e.g., Becker & Colquitt, 1992; Graham *et al*., 2002; Kluger & Colella, 1993). Therefore, the first bogus item is the most verifiable and objective item and is faked less, whereas the third item is the least verifiable and objective and is faked more.

Also, it is possible that the second item was endorsed less often compared with the third item because it required candidates to elaborate their responses. Schmitt and Kunce (2002) argued that the required elaboration of biodata items may decrease faking because candidates are asked to indicate previous experiences that can verify and support their answers. However, only two empirical studies (and none with actual job applicants) have been conducted to assess the usefulness of the elaboration technique (Schmitt & Kunce, 2002; Schmitt *et al*., 2003). Additional research should explore elaboration as a technique to mitigate faking. Moreover, the results of this study show that bogus item 1 (the most verifiable item) was endorsed more often by candidates with lower level of mental abilities, whereas bogus item 3 (the least verifiable item) was endorsed more often by candidates with higher level of mental abilities. This finding provides support for the idea that job candidates with higher levels of mental ability might fake in less detectable ways.

Finally, it is important to note that these results were found in the context of an actual selection situation where candidates were warned that their responses could be verified and that any attempts to falsify information could be used as a basis for not employing them. Consistent with past research, results of this study suggest that warning of response verification does not necessarily motivate applicants to respond honestly (Vasilopoulos *et al*., 2005). At the same time, it is possible that warning of response verification motivated applicants to adopt a faking strategy that allowed them to fake in a way that minimized detection (e.g., by considering the verifiability of each item response).

Notes

1. There is some evidence suggesting that lie scales may measure two constructs: social conformity and social desirability (Pearson & Francis, 1989). Thus, lie scales may not reflect more severe types of faking such as falsification and lying.
2. An exploratory factor analysis of the 88 biodata items with the maximum likelihood extraction method and oblique factor rotation (promax) suggested a four-factor solution. The rotated factors accounted for 84% of the variance. Despite the emergence of these four factors, the results examining each factor separately are the same as the results using the total biodata score. In the interest of parsimony, we are only reporting results using the total biodata score.
3. Moderated regression analysis assumes that our faking measure is a continuous measure. Because it is not clear if this is an appropriate assumption, we also perform comparison of correlations. Although these different analyses reach similar conclusions in support of the hypothesis, we feel that both analyses provide the maximum amount of information about the relationship between biodata scores and the cognitive ability across faking groups.

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