BIODATA: A THING OF THE PAST? EXAMINING THE PREDICTIVE

VALIDITY AND USER REACTIONS OF RATIONALLY-SELECTED, EMPIRICALLY

KEYED BIODATA

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A Dissertation

Presented to

The Faculty of the Department

of Psychology

University of Houston

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In Partial Fulfillment

Of the Requirements for the Degree of

Doctor of Philosophy

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By

Olivia K. Childers

May, 2016

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ABSTRACT

HR professionals often fail to implement the best selection practices (Rynes, Colbert, & Brown, 2002), proving very costly to organizations. Biodata inventories represent one selection tool that is underutilized, due to being poorly understood and fear of negative user reactions (Hausknecht, Day, & Thomas, 2004). This research examined the incremental validity of rationally-selected, empirically keyed biodata in predicting core task performance and job attitudes over and beyond that accounted for by cognitive ability and conscientiousness. Drawing from Person-Environment fit theory (Kristof, 1996), I argued that biodata developed in this manner would be rated more favorably than measures of cognitive ability and conscientiousness due to the job-specific nature of the internally developed inventory. Biodata inventory and scoring key were previously developed in a field setting from job incumbents in a clerical job. Hypotheses were tested using a holdout sample of 168 employees not included in the biodata key development. Results revealed that biodata provided incremental validity in the prediction of core task performance and job attitudes (i.e., organizational commitment and job satisfaction). Furthermore, the biodata inventory was viewed equally or more favorably than other commonly used selection assessments (e.g., cognitive ability, personality).

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> "That my heart may sing your praise and not be silent. O Lord my God, I will give thanks to you forever!" Psalm 30:12

❖ To my wonderfully kind, persistently patient, and continuously supportive family, David, Sherry, Amanda, and Emily Childers: Thank you for unconditionally loving, supporting, and believing in me. Graduate school can be daunting at times, but your Houston visits, prayers, and love kept me (mostly!) sane. Thank you for always keeping me laughing, even if I was not "born with a sense of humor"! I'm very grateful that you are my family and even happier that we are also friends. Life is more fun, beautiful, and joyful when we are together! I hope every day of your life is a "Livi Day!".

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❖ Finally, to my four-legged, polka dotted companion, Jackson: Thank you for always staying by my side.

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DEDICATION

I dedicate this work to my selfless parents, David and Sherry Childers. I am so thankful and very proud to be your daughter. I am who I am, because of you. I am eternally grateful for every opportunity and blessing you have given me. I love you always, Daddy and Mama!

"I always thank my God as I remember you in my prayers, because I hear about your love for all His holy people and your faith in the Lord Jesus." Philemon 1:4-5

Chapter I

Biodata: A Thing of the Past? Examining the Predictive Validity and User Reactions of

Rationally-Selected, Empirically Keyed Biodata

Organizations create a sustainable competitive advantage through its people, by

attracting, selecting, and hiring the top applicants (Pfeffer, 1998; Rynes & Cable, 2001).

Organizational performance can be enhanced by selecting employees who will exert greater

effort and positive attitudes that help the firm succeed (Guest, 1997). Increasing recognition

of the economic value of hiring the best people—especially for key positions—place

recruitment and selection at the forefront of corporate strategy. Interestingly, the same forces

that emphasize the importance of recruitment and selection, will place increased importance

on employee retention in the long run (Bowen, Ledford, & Nathan, 1991; Rynes & Cable,

2001), seeking out high performing applicants who will be committed to the organization and

satisfied with their job. Selecting applicants who match the needs and characteristics of the

organization is the key to retaining a workforce with the commitment and flexibility to face

competitive challenges (Cable & Judge, 1994). Unfortunately, HR professionals often fail to

implement best selection practices due to a lack of knowledge (Rynes, Colbert, & Brown,

2002), proving very costly to organizations, as employee characteristics can determine the

effectiveness of future management practices (e.g., employee development, performance

management). Biographical information (biodata) inventories represent one selection tool

that is underutilized and poorly understood (e.g., Gatewood, Feild, & Barrick, 2008; Mael,

Connerley, Morath, 1996; Ryan, McFarland, Baron, & Page, 1999) and is the focus of this

research proposal.

Biodata inventories—items pertaining to "historical events that may have shaped the person's behavior and identity" (Mael, 1991; p. 763)—are one of the most valid predictors of personnel selection, predicting job performance (e.g., Hunter & Hunter, 1984), turnover (e.g., Becton, Matthews, Hartley, Whitaker, 2009), supervisor ratings (Mount, Witt, Barrick, 2000), and training success (Schmidt & Hunter, 1998), and can generalize across occupations and organizations (see Breaugh, 2009; Salgado, Viswesvaran & Ones, 2002). Biodata demonstrates low adverse impact (e.g., Mumford & Stokes, 1991) and accounts for incremental validity beyond cognitive ability and personality (McManus & Kelly, 1999; Mount et al., 2000). Despite its powerful predictive capabilities, the role of life history predicting future job performance is inadequately understood leading to its limited use (e.g., Gatewood et al., 2008; Mael et al., 1996; Ryan et al., 1999; Stokes, 1999) for fear of negative user reactions due to low face validity, lack of job relatedness, and violation of privacy. User reactions refer to attitudes, affect, or cognitions an individual might have about the hiring process (Ryan & Ployhart, 2000) and can positively and/or negatively impact candidates' attitudes and behaviors (e.g., Chapman, Ugerslev, & Webster, 2003; Rynes, Heneman, Schwab, 1980; Truxillo, Bauer, Campion, & Paronto, 2002).

With the present study, I will examine the incremental validity of rationally-selected, empirically keyed biodata in predicting core task performance over and beyond that accounted for by cognitive ability and conscientiousness. The work habits biodata inventory examined here was developed using an inductive approach whereby items were rationally-selected, empirically keyed, and cross-validated. Cognitive ability coupled with personality accounts for approximately less than half of the variance in the criterion (Barrick & Mount, 1991; Hunter & Hunter, 1984). This study seeks to examine if biodata can assess aspects of

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the criterion domain that are not assessed by cognitive ability and conscientiousness. This question is both theoretically and practically important. Theoretically, this hypothesis tests whether externally constructed measures focused on predicting a specific criterion (e.g., biodata) are redundant with internally constructed measures (e.g., cognitive ability, conscientiousness) focused on the predictor space (Mount et al., 2000). Practically, this question is important to study in an effort to maximize selection validity by ensuring the overlap amongst selection measures is not so great that there is no incremental gain.

Extending previous research (Mount et al., 2000), I will examine the incremental validity of biodata predicting not only core task performance, but also job attitudes, specifically organizational commitment and job satisfaction. The present biodata inventory was developed based on conceptual and empirical linkages with the criterion (i.e., core task performance), enhancing the match between biodata items and the demands of the work environment. Drawing from Person-Environment (P-E) fit theory (Kristof, 1996), the compatibility, or fit, between employees and their work environment will enhance future job attitudes in part due to greater job performance. Applicants selected for their positive work habits will presumably be better equipped to succeed in their job and organization, resulting in greater organizational commitment and job satisfaction.

Lastly, this study will investigate and compare user reactions of cognitive ability, conscientiousness, and biodata. Meta-analytic findings (Hausknecht, Day, & Thomas, 2004) indicate that users rate measures of cognitive ability and conscientiousness more favorably than biodata. Although these findings are theoretically and practically useful, the examined studies simply asked participants to assess the favorability of various selection tools without actually completing the assessments. Because subjects did not complete the assessments, the

subjects may have been unable to accurately evaluate their reactions. Indeed, scholars have acknowledged this methodological limitation of the user reaction literature and have called for future research to examine the reactions of users who have actually completed the assessments (e.g., Hausknecht, 2013). The present study seeks to fill this gap in the literature by examining reactions of users who have completed biodata, cognitive ability, and conscientiousness measures. Additionally, I argue that conducting a job analysis to ensure items are job-related (i.e., rational approach) and retaining the most predictive items (i.e., empirical approach) to develop the present biodata inventory, enhances not only the predictive validity but also the perceived job-relatedness of the biodata inventory, leading to positive user reactions. Finding that biodata is a strong predictor of core task performance and job attitudes (i.e., organizational commitment and job satisfaction) and that users react positively to the biodata inventory could inform best practices in developing and selecting highly predictive selection tools (e.g., biodata) that are perceived positively by job applicants.

Biodata

Biodata inventories are self-report questionnaires that assess historical events that have shaped a person's identity and behavior (Mael, 1991), resting on the theoretical assumption of behavioral consistency (Owens & Schoenfeldt, 1979) that the "best predictor of future performance is past performance" (Wernimont & Campbell, 1968; p. 372). The lack of a singular definition of biodata has led researchers to measure biodata very differently. For example, Nickels (1994) required subjects to describe previous behaviors and life events while others asked more specific questions such as the amount of time spent in one's previous position (O'Connell, Hattrup, Doverspike, & Cober, 2002). Other scholars adopt a broader view of biodata (e.g., values, habits, preferences, aptitudes, and abilities [Mitchell,

1994; Mumford & Stokes, 1991]) to tap a wider range of variables (e.g., "I like doing things with other people," "My teachers/lecturers regarded me as a sociable boy/girl" [Lefkowitz, Gebbia, Balsam, & Dunn, 1999]). The biodata inventory implemented in this study assesses employees' work habits, as these characteristics were identified as imperative to successful core task performance (for a full description of work habits biodata inventory, please refer to the measures section). This research examines the predictive validity of cognitive ability, conscientiousness, and work habits biodata inventory predicting the identified core task performance domain, as this domain captures the most important behaviors that contribute to the organization's technical core (Borman & Motowidlo, 1997; Rotundo & Sackett, 2002).

Cognitive Ability

Cognitive ability is arguably the best predictor of job performance in most, if not all, jobs with its predictive validity increasing with job complexity (Hunter & Hunter, 1984; Murphy, Cronin, & Tam, 2003; Schmidt, 2002; Schmidt & Hunter, 1998, 2004). One reason cognitive ability leads to higher job performance is through knowledge acquisition. Higher ability employees are capable of rapidly acquiring and retaining more job knowledge and applying learned job knowledge appropriately (Hunter, 1986). In accordance with past research (e.g., Hunter & Hunter, 1984; Schmidt & Hunter, 1998, 2004), I hypothesize that employees high in cognitive ability will receive higher supervisory ratings of core task performance.

Hypothesis 1a: Employees with higher scores on the cognitive ability scale

will receive higher supervisory ratings of core task performance.

Non-Cognitive Selection Assessments

Despite its predictive validity, organizations should avoid using cognitive ability as its only selection tool. Doing so will likely lead to adverse impact (Hunter & Hunter, 1984) and reduced organizational diversity, putting the organization at an increased risk of facing costly legal repercussions. As such, other selection tools should be coupled with cognitive ability (e.g., personality, biodata, interviews, work samples; Goldstein, Zedeck, Goldstein, 2002; Murphy et al., 2003; Sackett & Lievens, 2008).

If performance is the result of both ability and motivation, it is important to also examine motivationally-laden constructs (Goldstein et al., 2002). The selection model is criticized for being too cognitively loaded, limiting our ability to expand the amount of job performance variance accounted for (e.g., Murphy et al., 2003). For example, cognitive ability may be more predictive in the early stages of learning when knowledge acquisition and application are great; whereas, non-cognitive predictors may predict better in typical performance when motivation may be more important. Conscientiousness and biodata are two predictors of motivationally-laden criteria, including core task performance (Barrick & Mount, 1991; Barrick, Mount, & Gupta, 2003; Stokes & Reddy, 1992; Mumford & Stokes, 1993).

Conscientiousness

In addition to cognitive ability, conscientiousness is considered the most attractive quality for a job applicant to possess (Dunn, Mount, Barrick, & Ones, 1995). Conscientiousness—the ability to control, regulate, and direct one's impulses in need for achievement, order, and persistence—is one of five personality traits that compose the widely used and accepted Five Factor Model (FFM; Costa & McCrae, 1992; Goldberg & Saucier, 1995; John, Robins, & Pervin, 2008). Personality traits can account for incremental validity

beyond cognitive ability (McHenry, Hough, Toquam, Hanson, & Ashworth, 1990), assessment centers (Goffin, Rosthstein, & Johnston, 1996), interviews (e.g., Cortina, Goldstein, Payne, Davison, & Gilliland, 2000), and biodata (McManus & Kelly, 1999; Mount et al., 2000). The present study focuses on conscientiousness as it is the FFM trait that best predicts job performance (Barrick & Mount, 1991; Barrick et al., 2003) and generalizes across occupations (Barrick, Mount, & Judge, 2001).

Conscientious individuals are predisposed to be self-disciplined, organized, exacting, diligent, and purposeful (Maslach & Jackson, 1986; McCrae & Costa, 2003; Witt, Burke, Barrick, & Mount, 2002). Compared to those low in conscientiousness, highly conscientious employees are more inclined to thoroughly and correctly perform work tasks and to take initiative in solving problems (Dunn et al., 1995). These employees are highly committed to achieving positive work performance and value following the rules (Dunn et al., 1995). Conversely, individuals who are low in conscientiousness often fail to comply with organizational policy (Arthur & Doverspike, 2001), instead focusing on satisfying immediate needs, regardless of future consequences (West, Elander, & French, 1993). Those high in conscientiousness are highly achievement-oriented (McCrae & Costa, 2003), so much that conscientiousness has been referred to as the "will to achieve" (Digman & Takemoto-Chock, 1981). In accordance with previous research (e.g., Hunter & Hunter, 1984), I posit the following:

Hypothesis 1b: Employees with higher scores on the conscientiousness scale

will receive higher supervisory ratings of core task performance.

Biodata Predicting Job Performance

A plethora of research supports biodata's ability to make accurate predictions of future job performance (e.g., Allworth & Hesketh, 2000; Eberhardt & Muchinsky, 1982; Mumford & Stokes, 1991; Owens & Shoenfeldt, 1979), suggesting that biodata may be among the best in predicting job success (Owens, 1976). Biodata predicts supervisor ratings of job performance (e.g., Hunter & Hunter, 1984; Schmidt & Hunter, 1998), job placement and promotion success (Harvey-Cook & Taffler, 2000), training success (Drakeley, Herriot, & Jones, 1988), tenure, and turnover (e.g., Barrick & Zimmerman, 2005; Brush & Owens, 1979; Drakeley et al., 1988). Based on the strong support of biodata, Salgado and colleagues (2002) conclude "biodata are one of the most valid predictors of personnel selection, and that their validity can generalize across organizations, occupations, and samples" (p. 182).

Despite its impressive predictive power, biodata's major limitation is arguably its lack of theoretical foundation leading many researchers to regard it as part of a "dustbowl empiricism," contributing little to understanding and theory advancement (Stokes, 1999). One theory of biodata is that individuals "manifest an internally consistent pattern of environmental transactions resulting in systematic activity selections and formation of a stable developmental trajectory" (Mumford, Wesley, & Shaffer, 1987, p. 294). Individuals' environmental interaction patterns lead to a stable, predictive style of decision making, future development, and adaptation. The present study examines the predictive validity of employees' work habits, assuming that frequent performance of a behavior leads to habit formation, influencing future behavior and decision making. Indeed, the frequency in which behavior has previously been performed tends to correlate with future actions (Ajzen, 2001). In line with previous research (Mount et al., 2000), I hypothesize that the work habits biodata inventory will predict ratings of core task performance.

Hypothesis 1c: Employees with higher scores on the work habits biodata

inventory will receive higher supervisory ratings of core task performance.

Incremental Validity of Biodata in Predicting Job Performance

It is important to differentiate the means of measurement (method) from the construct

being measured (content) when considering multiple selection methods (Hunter & Hunter,

1984). Measures, such as cognitive ability and conscientiousness, measure singular

psychological constructs, whereas biodata are methods of measurement rather than constructs

(Schmidt & Hunter, 1998). Biodata (typically) constitutes a fixed measurement method of

standardized, multiple-choice questions assessing a broad range of content (e.g., interests,

values, skills), often measuring combinations of various constructs. In line with previous

research (McManus & Kelly, 1999; Mount et al., 2000), I hypothesize that rationally-

selected, empirically keyed biodata will account for incremental validity in job performance

beyond that accounted for by cognitive ability and conscientiousness for at least two reasons.

First, the development and intended measurement of the scales (i.e., cognitive ability

and conscientiousness versus biodata) are practically and theoretically very different (see

Mount et al., 2000). Cognitive ability and the FFM are developed using a construct-oriented

approach to measure a specific set of traits or abilities (e.g., cognitive ability,

conscientiousness). Conversely, biodata are created to predict a specific criterion in a

particular job. For example, the work habits biodata inventory employed in this study was

developed to predict the quantity and quality of work (i.e., core task performance) for a

clerical job. In other words, cognitive ability and FFM measures are "internally constructed,"

whereas biodata are "externally constructed" to predict job-specific criteria (Goldberg, 1972).

Second, biodata forms differ from cognitive ability and conscientiousness measures due to the broad scope and focus of the items making them useful additions to selection systems, accounting for unexplained variance (Mount et al., 2000). Although it is likely that biodata overlaps somewhat with other constructs (e.g., cognitive ability and personality), they are not redundant (Hough & Paullin, 1994; Mael, 1991). For example, biodata that assesses an applicant's skills or work habits may overlap somewhat with cognitive ability and conscientiousness, as these constructs likely impact the types of work habits individuals develop. However, biodata items are drawn from a larger content domain than cognitive ability and personality, often measuring combinations of both known and unknown constructs (e.g., delayed gratification, leadership skills; Hunter & Hunter, 1984; Schmidt & Rothstein, 1994). Thus, in line with previous research (Mount et al., 2000), I predict the following:

> Hypothesis 2a: The work habits biodata inventory will account for variance in supervisory ratings of core task performance beyond that of cognitive ability.

> Hypothesis 2b: The work habits biodata inventory will account for variance in supervisory ratings of core task performance beyond that of conscientiousness.

> Hypothesis 2c: The work habits biodata inventory will account for variance in supervisory ratings of core task performance beyond that of both cognitive ability and conscientiousness.

Job Attitudes: Organizational Commitment and Job Satisfaction

In addition to predicting job performance, selection devices may prove useful in predicting job attitudes (Becton et al., 2009; Wright & Cropanzano, 2000). Job attitudes—the

evaluation of one's feelings toward, beliefs about, and attachment to one's job (Judge & Kammeyer-Mueller, 2012)—are important to examine because they predict actual behavior (Kraus, 1995). Theories of behavioral prediction, specifically theory of reasoned action (Ajzen & Fishbein, 1977) and theory of planned behavior (Ajzen, 1991), assert attitudes influence behaviors through behavioral intentions and perceived control (Kraus, 1995). For example, when employees experience unfavorable work attitudes (e.g., reduced organizational commitment and job dissatisfaction) employees engage in a series of withdrawal behaviors (e.g., lateness, absenteeism, turnover; the withdrawal model [Hulin, 1991]) before leaving the organization (Mitra, Jenkins, & Gupta 1992). Conversely, when employees hold favorable attitudes toward their job and organization, employees contribute to rather than withhold desirable inputs from their work roles (Harrison, Newman, Roth, 2006; Mitra et al, 1992). The present study focuses on organizational commitment and job satisfaction, as each reflects a fundamental evaluation of one's job experiences (Harrison et al., 2006).

Organizational commitment and job satisfaction are related as they both refer to positive psychological states (Mathieu & Zajac, 1990) but differ in their target. Organizational commitment refers the psychological state that binds an employee to his/her organization (Allen & Meyer, 1990) because they "want to" (affective commitment), "ought to" (normative commitment), and/or "need to" (continuance commitment). Similarly, job satisfaction is a positive psychological state resulting from the positive appraisal of one's job (Locke, 1976). It is imperative for organizations to be composed of committed and satisfied employees as it not only reduces the likelihood of absenteeism, turnover, and other withdrawal behaviors (Meyer, Stanley, Herscovitch, Topolnytsky, 2002; Steers, 1977) and

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increases organizational performance (Ostroff, 1992), but also buffers the harmful impact of job stress (Begley & Czajka, 1993).

Biodata Predicting Job Attitudes

Biodata may be an important predictor of not only job performance, but also future job attitudes (Becton et al., 2009). Copious amounts of research demonstrate biodata predicts several important behaviors (e.g., job performance, turnover); however, scholars (Breaugh & Dossett, 1989; Dreher & Sackett, 1983; Pace & Schoenfeldt, 1977) recommend rethinking the way biodata has traditionally been used. One area that remains largely unexplored is the use of biodata predicting job attitudes.

Because work habits biodata inventory is tailored to the needs of the job and organization, P-E fit theory (Kristof, 1996) suggests that it should predict not only job performance but also future attitudes. P-E fit theory suggests that the congruency and compatibility between employees and their work environment affect their attitudes and behaviors (e.g., Kristof-Brown et al., 2005). Perceptions of fit enhance job attitudes, increasing prosocial behavior, and performance, while reducing stress, intentions to quit, and turnover (Kristof-Brown et al., 2005).

Based on P-E fit theory, there are at least two reasons why work habits biodata should predict job attitudes. First, applicants selected for their positive work habits will presumably be better equipped to succeed in their job duties. Biodata inventories are job-specific, tailored to the demands and requirements of the job and organization, identifying applicants who possess behaviors and habits that match actual work demands and conditions. In other words, applicants' behaviors fit the demands of the job. Person-job fit (P-J fit; Kristof, 1996) refers to the "fit" or match between the capabilities of a person and the demands of a job. Matching

the employee to the job is mutually beneficial to both involved parties, resulting in enhanced job satisfaction, organizational commitment, and task performance and reduced intentions to quit (see Edwards, 1991).

Secondly, organizations and applicants seek out situations that are congruent with their identity and values. Simply speaking, the attraction-selection-attrition (ASA) framework (Schneider, 1987; Schneider, Goldstein, & Smith, 1995) states that an individual (organization) is attracted to organizations (applicants) that share similar goals, values, and views as themselves and selects work environments (employees) that match their needs. Person-organization fit (P-O fit) refers to the compatibility between an individual and the overall organization (Kristof, 1996). Like P-J fit, P-O fit is related to increased job satisfaction, organizational commitment (Bretz & Judge, 1994), and performance (Bretz & Judge, 1994; Goodman & Svyantek, 1999) and reduced intentions to quit and turnover (Chatman, 1991; O'Reilly et al., 1991). Furthermore, Judge and Ferris (1992) suggested that P-O fit impacts the degree to which employees are liked by other organizational members (e.g., co-workers, supervisor) impacting their effectiveness.

In a selection context, an organization needs individuals with the necessary KSAOs to meet the demands of the job and organization. Similarly, an applicant seeks an organization that will satisfy his/her needs (Kristof, 1996; Schneider, 1987). By selecting employees based on their work habits, the organization presumably satisfies its needs (i.e., hiring qualified applicants), while also satisfying the needs of the selected candidates, placing employees in a job that values and utilizes their skills and work habits. Employees with positive work habits that match the demands of the job and organization are better positioned to perform well, leading to enhanced commitment and satisfaction due to formal and

informal rewards resulting from high job performance. Valuing applicants for their positive work habits and subsequently selecting them into positions for which they are equipped to succeed enhances employees' job attitudes through perceptions of fit between individuals and the job (P-J fit) and the overall organization (P-O fit). Hence, I posit that work habits biodata will predict not only performance, but also organizational commitment and job satisfaction.

Hypothesis 3a: Work habits biodata inventory will be positively related to organizational commitment.

Hypothesis 3b: Work habits biodata inventory will be positively related to job satisfaction.

Conscientiousness Predicting Job Attitudes

The post-cognitive model of attitudes asserts that attitude formation begins with individual characteristics (e.g., personality) affecting job perceptions, which impact attitude formation (James & Jones, 1987). Job perceptions—cognitive representations of situational job attributes, reflecting the psychological meaning of those attributes to employees (James & Jones, 1980)—mediate the relationship between environmental events (e.g., job characteristics) and affective reactions (e.g., job satisfaction, organizational commitment) to those events. One individual characteristic that may impact attitude formation is conscientiousness.

Drawing from the tripartite categorization of attitudes (Eagly & Chaiken, 1993), conscientiousness may impact job attitudes through cognitive, affective, and behavioral processes. Cognitively, conscientiousness influences how employees perceive and interpret characteristics of their jobs. Affectively, conscientiousness might impact organizational

commitment and job satisfaction by impacting mood and emotions experienced while at work (Brief, 1998; Costa & McCrae, 1980). Behaviorally, conscientious employees may be more satisfied and committed with their job and organization because they are more likely to achieve satisfying results at work. As noted by Judge, Heller, and Mount (2002), this effect may partially operate through job performance, with highly conscientious employees performing better resulting in greater satisfaction with their jobs due to intrinsic and extrinsic rewards provided by high job performance (e.g., bi-directional model of job satisfaction and job performance; Judge, Thoresen, & Bono, 2001). Thus, I hypothesize the following:

Hypothesis 4a: Conscientiousness will be positively related to organizational commitment.

Hypothesis 4b: Conscientiousness will be positively related to job satisfaction.

Previous research suggests a nonsignificant relationship between cognitive ability and job attitudes (Bagozzi, 1978; Colarelli, Dean, & Konstans, 1987; Ganzach, 1998; Stone, Stone, & Gueutal, 1990). The limited success linking cognitive ability to job attitudes is not surprising because job attitudes represent value-based beliefs, feelings, and attachments to one's job (Judge & Kammeyer-Mueller, 2012), and not one's ability to process and retain information. Due to the lack of theoretical rationale and empirical connections made, I will not hypothesize about the relationship between cognitive ability and job attitudes.

Incremental Validity of Biodata in Predicting Job Attitudes

While conscientiousness likely impacts attitude formation through cognitive, affective, and behavioral processes, biodata presumably accounts for incremental variance beyond that of conscientiousness in the prediction of job attitudes. Both measures should predict job attitudes through perceived fit by matching the requirements and needs of the job

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and organization with characteristics of the applicant. However, work habits biodata should provide incremental validity beyond that accounted for by conscientiousness because it is tailored to the needs and requirements of a particular job within a specific organization. Conversely, scales of conscientiousness are created to measure conscientiousness in general, not specific to any certain job or organization. In other words, measures of conscientiousness assess abstract characteristics of people (e.g., detail-oriented), whereas the work habits biodata inventory is designed around the job. Hence, I posit that work habits biodata will account for variance in the prediction of organizational commitment and job satisfaction beyond that of conscientiousness due to its job-specific development and the broad scope of the assessment.

Hypothesis 5a: Work habits biodata inventory will account for variance in the prediction of organizational commitment beyond that of conscientiousness.

Hypothesis 5b: Work habits biodata inventory will account for variance in the prediction of job satisfaction beyond that of conscientiousness.

User Reactions

It is vital that organizations carefully choose which selection tools to employ, balancing the predictive power of an assessment with applicants' reactions to the tests. The selection process no longer occurs "behind closed doors", but rather potential and actual job candidates can now do a quick internet search of an organization and read about the experiences of others with the company making user reactions more important than ever. Furthermore, the selection process can provide signals of unknown organizational characteristics (e.g., Rynes, 1991; Rynes et al., 1980; Rynes & Miller, 1983; Turban, 2001) causing applicants' experiences of the selection process to shape their perceptions of the job

and/or organization (e.g., Hausknecht et al., 2004; Macan, Avedon, Paese, & Smith, 1994). In other words, the perceived fairness of the selection process, specifically selection assessments, may serve as signals of broader, unobservable organizational characteristics (Rynes, 1991; Spence, 1973), such as how fair and just the organization typically operates. As more research is devoted to examining the applicant's perspective, it has become clear that how applicants perceive the selection process matters (Chapman, et al., 2003; Rynes et al., 1980; Truxillo, et al., 2002).

Applicant reactions are practically important to examine (Truxillo, Bodner, Bertolino, Bauer, & Yonce, 2009) because they have the power to impact: (a) organizational attractiveness which can indirectly influence pursuit and/or acceptance of job offers (Smither, Reilly, Millsap, Pearlman, & Stoffey, 1993), (b) likelihood of litigation (ethical/legal issues; e.g., Bauer, Truxillo, Sanchez, Craig, Ferrara, & Campion, 2001), (c) selection procedure validity (e.g., test taking motivation; Chan, Schmitt, Sacco, & DeShone 1998), and (d) utility (loss of qualified applicants; Truxillo et al., 2009). Furthermore, the selection process may have further consequences spilling over into future behavior (e.g., reapplication, utilizing the organizations products or services) and communications with other customers and potential applicants about the organization (Chan, 1997).

Procedural Justice

Organizational justice— "the extent to which people perceive organizational events as being fair" (Colquitt & Greenberg, 2004, p. 166)—enhances our understanding of applicant reactions (e.g., Bauer, Maertz, Dolen, & Campion, 1998; Truxillo, Bauer, Campion, & Paronto, 2002). Perceptions of organizational justice are important to consider because they are "a basic requirement for the effective functioning of organizations and the

personal satisfaction of the individuals they employ," (Greenberg, 1990; p. 399). More specific to the selection process, procedural justice refers to the perceived fairness of decision-making procedures (Thibaut & Walker, 1975) and relates to job satisfaction, organizational commitment, trust in management, turnover, and work effort (Greenberg, 1990; McFarlin & Sweeney, 1992).

According to models of procedural justice, people hold certain expectations regarding what constitutes appropriate and fair treatment. When these expectations are unmet, the justice rule is said to be violated, leading to perceptions of unfairness. When expectations are met, the justice rule is said to be satisfied, leading to perceptions of fairness, impacting applicants' thoughts and decisions (e.g., organizational attractiveness, job choice; Gilliland, 1993; Leventhal, 1980). In his rules of procedural justice, Gilliland (1993) highlights the importance of the formal characteristics (e.g., job relatedness) of selection measures used during the selection process. Indeed, applicants prefer test items that are perceived to be predictive of future job performance, job-related ("face validity"), and not overly invasive (Elkins & Phillips, 2000; Ryan & Huth, 2008), preferring measures with concrete job-related items to abstract questions (Smither et al., 1993).

Perceived job-relatedness of selection assessments is central to fairness perceptions (Steiner & Gilliland, 2001). Users react more favorably to selection tools that are job-related (Hausknech et al., 2004), perceiving them to be fairer and having higher predictive validity. Job relatedness describes the extent to which a selection test appears to measure job duties important for performance in a particular context. Applicants' perception of an assessment's "reasonableness" (e.g., job-relatedness) largely depends on the perceived fit between the selection tool and the selection context (Elkins & Phillips, 2000). In other words, perceptions

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of fairness of selection tests depends upon its contextual fit with the requirements of the job

meaning "any given technique might be seen as fair for certain job families and quite unfair

for others" (Elkins & Phillips, 2000, p. 483). Thus, the job context should be systematically

considered when selecting which selection device to implement.

Meta-analytic findings (Hausknecht et al., 2004) indicate that traditional selection

procedures (e.g., interviews) are most favored, graphology is least favored, and

"psychological assessments" fall in between (i.e., cognitive ability, personality, biodata,

listed in order of favorability ratings). Hausknecht and colleagues (2004) reason that

applicants prefer interviews and work samples because there is typically a transparent

relationship between the assessments' content and the duties of the job; whereas the

relationship between cognitive ability, personality, and biodata and job requirements may be

less clear. However, while attractive to applicants, some selection tools may be impractical

and costly for organizations to implement (e.g., work samples). Organizations seek to

implement cost-effective selection tests that allow screening large numbers of applicants.

(Truxillo et al., 2009). For example, biodata can collect information normally gathered

through an employment interview, with biodata assessing the information more economically

(e.g., Bobko, Roth, & Potosky, 1999; Dalessio & Silverhart, 1994). Furthermore, biodata

collects information in a highly structured format, asking and evaluating the same questions

in exactly the same way with for all applicants (Gatewood et al., 2008), limiting the errors

and biases (e.g., leniency, halo) that often accompany the use of interviews.

Although Hausknecht and colleagues' (2004) results provide useful conclusions for

other selection assessments, I argue that combining biodata findings to make meta-analytic

conclusions may be inappropriate due to the variable nature of biodata's development and

content (Mael et al., 1996). Indeed, Elkins and Phillips (2000) argue that the perceived job relatedness and subsequent fairness of biodata is largely dependent upon the context of its use and caution against overgeneralizations regarding biodata's perceived fairness. Thus, I assert that it is important to consider the manner in which biodata are developed (e.g., rationally-selected and empirically keyed) and how it is applied (selection context) when examining user reactions

Perceptions of biodata have yielded conflicting results, contributing to their underutilization in practice (Hammer & Kleiman, 1988). For example, one study found that business students favored biodata over cognitive ability tests, perceiving biodata as fairer, providing more control over their performance, and better captured "who they were" (Kluger & Rothstein, 1993). Conversely, other research indicates biodata is viewed as less job related than alternative selection assessments (e.g., Hausknecht et al., 2004; Smither et al., 1993).

Previous biodata research largely focused solely on empirical criterion-keying, causing many biodata inventories to lack face validity (Stone & Jones, 1994), resulting in poor user reactions. Basing biodata on a job analysis is one of the most effective ways to foster positive applicant reactions of biodata (Boxall & Purcell, 2011; Rynes & Connerley, 1993; Steiner & Gilliland, 1996). Although job candidates are unaware of the methods used to develop selection assessments, the methods (e.g., job analysis) used to create the selection assessment will impact the degree to which applicants perceive the assessment as job-related. When an organization implements biodata developed by first conducting a thorough job analysis and subsequently retaining the most predictive items, the selection assessment is likely to be viewed as more job-related and fairer than measures of cognitive ability and conscientiousness. For example, questions assessing applicants' work habits will presumably

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be perceived as more job-related than asking applicants about how "detail-oriented" and "dutiful" they are in their daily lives (both socially and professionally) or assessing their abstract mathematic and verbal abilities. Because work habits biodata are based on the KSAOs necessary for a specific job, I assert that applicants will view biodata more favorably than measures of cognitive ability and conscientiousness.

Hypothesis 6a: User reactions across selection tools will vary such that the work habits biodata inventory will be rated more favorably than measures of cognitive ability.

Hypothesis 6b: User reactions across selection tools will vary such that the work habits biodata inventory will be rated more favorably than measures of conscientiousness.

Control

Participants who participated in this study were job incumbents in clerical positions. Thus, it is possible that incumbents' job experience may impact their responses to the work habits biodata items. To minimize this potential confounding effect, I will control for tenure in all regression analyses.

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Chapter II

Method

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Sample and Procedure

Data were collected from 168 clerical personnel employed by a private sector organization. Subjects who agreed to participate completed paper-and-pencil surveys in a large training room. Incumbents came from diverse backgrounds (i.e., 39% White, 24%

Black, 34% Hispanic, 3% Other) and were primarily female (77%) with an average company tenure of 4 years.

Measures

      Cognitive ability. The Wonderlic Personnel Test (WPT) assessed cognitive ability. The WPT assesses three types of abilities: vocabulary, mathematic reasoning, and spatial relations and is psychologically equivalent to other cognitive ability measures (Hunter, 1989). As reported in the test manual, test-retest reliabilities range from .82 to .94, alternate form reliabilities range from .73 to .95, and other measures of internal consistency (e.g., alpha) range from .88 to .94 (see Wonderlic Personnel Test Manual, 1983).

      Conscientiousness. 30 items of the Personal Characteristics Inventory (PCI; Mount & Barrick, 1995) were employed to assess conscientiousness ($\alpha = .77$). Items were rated on a 3-point Likert-type scale (1 = Disagree, 3 = Agree).

      Biodata. Due to the archival nature of the data, the construction and development of the work habits biodata inventory was completed prior to my involvement with the present research. To develop the biodata inventory, a thorough job analysis was first conducted. One of the project consultants interviewed 36 first-line supervisors, 12 second-level supervisors, and the chief executive regarding the most important job duties Next, he reviewed performance contracts between supervisors and employees, as these contracts represented key objectives and results expected of employees. The job analysis revealed four primary content domains. The present study focuses on the identified core task performance domain, as this domain captures the most important behaviors that contribute to the organization's technical core.

Based on the information obtained, two consultants developed items to capture the four content domains. Developed criteria items were reviewed by eight mid-level managers, six first-line supervisors, four job incumbents, and two other project consultants. After numerous revisions and reiterations, four criterion scales were created to measure the four identified content domains. Principal components analyses with varimax rotation were conducted on supervisor ratings (N = 36) for all employees in the combined developmental and cross-validated samples. Analyses revealed four orthogonal factors. Each employee was rated by his/her immediate supervisor on the performance items.

Next, separate biodata scales were developed to predict each criterion. To develop these scales, items were drawn from relevant pre-existing measures and developed by a project consultant who had over 15 years of experience in test validation research involving biodata. Items were rationally assigned to the relevant criterion based on their conceptual linkage to the underlying performance constructs. Using the developmental sample, biodata items were empirically scored and then cross-validated. In other words, biodata scales were developed using an inductive approach where items were rationally-selected, empirically keyed, and cross-validated. The present study examined the proposed hypotheses using the cross-validation sample.

Work habits biodata. I used the previously developed 28-item work habits biodata inventory. Due to the proprietary nature of the items, the work habits biodata inventory is not included in the appendices.

Core task performance. The previously developed 7-item quantity and quality of work scale ($\alpha = .92$) measured employees' core task performance. Employees were rated by their immediate supervisor (e.g., "[Employee name] consistently produces a high quantity of

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work"; see Appendix A) who responded to items using a 5-point Likert-type scale ranging from 1 = weak (bottom 10%) to 5 = best (top 10%).

User reactions. I used 6 items to examine participants' perceptions of test effectiveness and invasiveness (e.g., "This test would be a logical one for identifying qualified applicants"; see Appendix B) of the work habits biodata inventory ($\alpha = .82$), cognitive ability ($\alpha = .71$), and personality ($\alpha = .80$). Items were rated on a seven-point Likert-type scale (1 = Totally Disagree, 7 = Totally Agree).

Job satisfaction. Job satisfaction was assessed by the validated (McNichols, Stahl, & Manley, 1978) Hoppock (1935) 4-item scale ($\alpha = .74$) presented on a 5-point response scale (e.g., "…how much of the time (do) you feel satisfied with your job"; see Appendix C)

Organizational commitment. I used the 12-item Hrebiniak and Alutto (1972) attitude toward changing employing institution scale ($\alpha = .75$) to measure organizational commitment (see Appendix D). Hrebiniak & Alutto (1972; 1973) view organizational commitment as the unwillingness to leave the organization for greater pay, status, or professional freedom, or for enhanced colleague friendship. Employees are told to assume they are offered a position with a different organization and then indicate the likelihood of leaving their present organization in response to the presented hypothetical conditions (e.g., "With much more freedom to be professional creative"). This measure utilizes a 3-option response format ranging (1 = Yes/Definitely, 2 = Uncertain, 3 = No/Definitely Not). High scores represent high levels of organizational commitment.

Chapter III

Results

Table 1 reports the means, standard deviations, reliabilities, and correlations. To minimize the potential confounding effect of incumbents' job experience, tenure was controlled for in all regression analyses. Supporting Hypothesis 1a, cognitive ability was positively related to supervisory ratings of core task performance (β = .173, p = .008). Consistent with Hypothesis 1b, conscientiousness was positively related to core task performance (β = .238, p = .001). Additionally, the work habits biodata inventory was also positively related to core task performance (β = .277, p = .000), supporting Hypothesis 1c. Results are reported in Table 2.

Next, I performed a hierarchical linear regression analysis to examine the incremental validity of biodata predicting supervisory ratings of core task performance by entering tenure in the first step, then the relevant predictor(s) in the next step(s), and finally the work habits biodata in the final step. I predicted the work habits biodata inventory would account for incremental variance in the prediction of supervisory ratings of core task performance beyond that of cognitive ability (H2a) and conscientiousness (H2b). Supporting Hypothesis 2a, work habits biodata accounted for unique variance beyond that accounted for by cognitive ability (ΔR^2 = .058, p = .000). Additionally, the work habits biodata inventory accounted for incremental variance beyond that of conscientiousness (ΔR^2 = .041, p = .004), in accordance with Hypothesis 2b. Finally, Hypothesis 2c predicted the work habits biodata inventory would account for variance in supervisory ratings of core task performance beyond that of both cognitive ability and conscientiousness. To test this hypothesis, I entered tenure in the first step, cognitive ability in the second step, conscientiousness in the third step, and work habits biodata in the fourth and final step. The stepwise regression showed significant improvements in the explained variability of core task performance for each subsequent

model (see Table 2). Supporting Hypothesis 2c, the work habits biodata inventory accounted for variance beyond that of tenure, cognitive ability, and conscientiousness in the prediction of core task performance ($\Delta R^2 = .037$, $p = .007$). Cumulatively, the four predictors (i.e., tenure, cognitive ability, conscientiousness, work habits biodata) accounted for approximately 20% of the variability in the criterion of performance (17.6% adjusted for shrinkage).

Supporting Hypotheses 3a and 3b, the work habits biodata inventory was positively related to organizational commitment ($\beta = .256$, $p = .003$) and job satisfaction ($\beta = .227$, $p = .007$), respectively. Additionally, results revealed conscientiousness significantly predicted organizational commitment ($\beta = .181$, $p = .037$) and was marginally related to job satisfaction ($\beta = .157$, $p = .060$). Hence, hypotheses 4a and 4b were supported, respectively. To examine the incremental validity of biodata predicting organizational commitment (H5a) and job satisfaction (H5b), I ran two multiple stepwise regression analyses where in each, I entered tenure in the first step, conscientiousness in the second step, and the work habits biodata inventory into the third step. Table 3 and Table 4 show that work habits biodata significantly accounted for unique variance in the prediction of organizational commitment ($\Delta R^2 = .044$, $p = .013$) and job satisfaction ($\Delta R^2 = .035$, $p = .021$) beyond that accounted for by tenure and conscientiousness, respectively. Hence, Hypotheses 5a and 5b were supported. Together, tenure, conscientiousness, and work habits biodata inventory accounted for approximately 11% of the variance in the prediction of organizational commitment (9% adjusted for shrinkage), and accounted for approximately 7% of the variance in the prediction of job satisfaction (5% adjusted for shrinkage).

A paired-samples t-test was conducted to compare user reactions of work habits biodata inventory and cognitive ability (H6a). There was a significant difference in the ratings of user reactions between the work habits biodata measure (M = 4.24, SD = 1.13) and the cognitive ability scale (M = 3.52, SD = 1.05), t(143) = 7.216, p = .000. Supporting Hypothesis 6a, these results suggested that users favored the work habits biodata inventory over the measure of cognitive ability. Additionally, user reactions of the work habits biodata inventory and conscientiousness were compared (H6b). Contrary to Hypothesis 6b, results indicated that user reactions were not significantly different when comparing reactions of the work habits biodata (M = 4.24, SD = 1.13) and conscientiousness (M = 4.27, SD = 1.11), t(143) = -.685, p = .494.

Chapter IV

Discussion

Biodata and Core Task Performance

Applying P-E fit theory (Kristof, 1996), the purpose of the present study was to examine the incremental validity of rationally-selected, empirically keyed work habits biodata in the prediction of core task performance and job attitudes. Results supported existing research (e.g., Mount et al., 2000), finding that cognitive ability (H1a), conscientiousness (H1b), and biodata (H1c) positively related to supervisory ratings of core task performance. Next, I examined the incremental validity of biodata. Results supported the assertion that biodata would provide incremental validity in the prediction of supervisory ratings of core task performance beyond that of cognitive ability (H2a), conscientiousness (H2b) and the combination of the two predictors (H2c). These findings support previous research (McManus & Kelly, 1999; Mount et al., 2000), strongly suggesting that scholars and

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practitioners should consider implementing biodata into their selection procedures. Although the incremental gains in explanatory power were modest, they can practically contribute to the predictive efficiency of a selection procedure (e.g., Hunter & Hunter, 1984; Hurtz & Donovan, 2000). This finding is useful given the effects of cognitive ability, conscientiousness, and tenure were controlled for. Thus, it appears that biodata can directly measure aspects of the criterion that are not elucidated by cognitive ability and conscientiousness, making it a useful addition to selection procedures. The implication of these findings suggests the joint use of internally developed measures created to assess relevant predictor constructs (e.g., cognitive ability, conscientiousness) and externally developed measures designed to measure situation specific relevant criterion constructs (e.g., biodata), can maximize selection validity.

Biodata and Job Attitudes

A gap in the existing literature which this study sought to fill was whether biodata could predict not only performance, but also job attitudes. Applying P-E fit theory (Kristof, 1996), I hypothesized that the work habits biodata inventory would be positively related to organizational commitment (H3a) and job satisfaction (H3b) due to the enhanced fit between the rationally-selected, empirically keyed measure and the demands of the work environment. P-E fit theory suggests that the congruency and compatibility between employees and their work environment positively affects their attitudes and behaviors (e.g., Kristof-Brown et al., 2005). Conversely, discrepancy between employees' capabilities and their environmental demands can induce stress, increasing intentions to quit and turnover (Edwards, 2008; Kristof-Brown et al., 2005). Because biodata inventories are job specific, tailored to the unique demands of the job, I argued that applicants selected through this

assessment would presumably be better equipped to meet the demands of the job, leading to enhanced commitment and satisfaction. Supporting P-E fit theory, results indicated that the work habits biodata inventory was positively related to both organizational commitment (H3a) and job satisfaction (H3b). This finding is important, as organizations not only want to select the top applicants but also retain employees who will be satisfied and committed to their job and organization (e.g., Rynes & Cable, 2001).

Hypotheses 4a and 4b predicted that conscientiousness would be positively related to organizational commitment and job satisfaction, respectively. Drawing from the tripartite categorization of attitudes (Eagly & Chaiken, 1993), I argued conscientiousness would positively impact job attitudes through cognitive, affective, and behavioral processes, influencing the way employees interpret, experience, and behave. Results supported a positive relationship with organizational commitment (H4a) and a marginally significant relationship with job satisfaction (H4b). As noted by Judge and colleagues (2002), this effect may partially operate through increased performance. As highly conscientious employees' achieve greater performance, heightened satisfaction and commitment will likely follow, due to intrinsic and extrinsic rewards provided by successful performance (Judge et al., 2001).

This study suggested that both biodata and conscientiousness predict job attitudes by matching the requirements of the job with the characteristics of the employee. Additionally, I hypothesized that the work habits biodata inventory would provide incremental validity beyond that accounted for by conscientiousness because it is tailored to assess the unique needs and requirements of a specific job within a particular organization. Stated differently, biodata should account for unique variance because it is designed around the job, whereas conscientiousness is created to assess abstract characteristics of individuals (e.g., detail-

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oriented). Drawing from P-E fit theory, I argued that the congruency between employee

capabilities and environmental demands enhances perceptions of fit, subsequently increasing

favorable job attitudes. As predicted, results suggested that the biodata inventory accounted

for incremental validity in the prediction of organizational commitment and job satisfaction,

beyond that accounted for by tenure and conscientiousness. Together, these results support P-

E fit theory, emphasizing the importance of congruency between employee characteristics

and their work environment. Thus, theories of fit may be useful when examining the

predictive validity of biodata.

User Reactions of Biodata and Conscientiousness

Finally, I examined user reactions to measures of cognitive ability, conscientiousness,

and the work habits biodata inventory. Supporting Hypothesis 6a, users rated the work habits

biodata inventory more favorably than cognitive ability. Next, I compared user reactions of

biodata and conscientiousness measures (H6b). Contrary to my prediction, users did not rate

the biodata inventory more favorably than conscientiousness. Although users rated

conscientiousness slightly more favorably than biodata, the difference was negligible and

was not significant. Together, these findings suggest that users rated measures of personality

and biodata quite similarly.

These results differ from previous findings (Hausknecht et al., 2004) which found

users favored measures of cognitive ability and personality over biodata. Hausknecht and

colleagues (2004) meta-analytically compared user reactions of biodata to other cognitive

and noncognitive selection measures, as if biodata were an unchanging, monolithic entity.

However, all biodata inventories are unique, measuring various constructs, attributes, and

abilities, covering an expansive range of topics (e.g., Mael et al., 1996). Hence, user reactions

likely differ greatly from one measure to the next. The positive user reactions of biodata found in this study may in part be due to the manner in which the biodata inventory was developed. According to procedural justice theory (Gilliland, 1993; Thibaut & Walker, 1975), the manner in which biodata inventories are created may dramatically impact how users react. Basing biodata on a job analysis is one of the most effective ways to enhance user reactions (Boxall & Purcell, 2011; Rynes & Connerley, 1993; Steiner & Gilliland, 1996). The biodata inventory examined in this study was developed based on a thorough job analysis, retaining the most predictive items. Hence, the job context was first systematically examined to ensure congruency between the biodata inventory and the work environment, enhancing both its predictive validity and user reactions. These findings contribute to the current literature, indicating that biodata is viewed equally or more positively than other commonly used selection assessments (e.g., cognitive ability, personality), but that scholars and practitioners should carefully evaluate the content of the measures.

Practical Implications

Organizational personnel who exert greater effort and positive attitudes create a competitive advantage for organizations (Guest, 1997; Pfeffer, 1998; Rynes & Cable, 2001). These results inform practice, finding biodata to be predictive of performance and job attitudes. The economic value of selecting and retaining key personnel place selection at the forefront of corporate strategy, indicating that biodata may be well worth the considerable time and money associated with its development. Biodata accounted for unique variance in the prediction of job performance and job attitudes. In economic terms, the gains from increasing the predictive validity of selection procedures can be substantial (Schmidt & Hunter, 1998). These findings strongly suggest that organizations should investigate the

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implementation of biodata into their selection procedures, as it can provide incremental validity beyond that accounted for by cognitive ability and conscientiousness.

In line with P-E fit theory, these results support that biodata is positively related to organizational commitment and job satisfaction. These findings suggest practitioners may want to examine their organizations' culture, values, and ideals and incorporate these principles into the content of the biodata inventory. This practice may help identify applicants who will not only successfully perform the duties of the job, but who will also align with and support the organization's mission, enhancing organizational attraction and future retention (Schneider, 1987). Selecting applicants who align with the organization's values precipitates positive outcomes, including positive job attitudes, organizational citizenship behaviors (OCBs), retention and reduced burnout (see Edwards, 2008). One limitation of P-E fit theory is that the concept of "fit" is viewed as static (Lazarus, 1991). Thus, organizations should be careful to provide the necessary training and/or additional resources so that employees are equipped to succeed, as the duties of the role may change and adapt overtime.

Biodata is often associated with low user reactions (Hausknecht et al., 2004; Smither et al., 1993), contributing to its underutilization (Elkins & Phillips, 2000; Hammer & Kleiman, 1988; Mael et al., 1996), despite its predictive capabilities (Hunter & Hunter, 1984; Mount et al., 2000; Salgado et al., 2002). Developing biodata based on a thorough job analysis can eliminate these shortcomings, with careful item selection, enhancing face validity and minimizing adverse impact (Boxall & Purcell, 2011; Breaugh, 2009). These results support the notion that a sound methodology used to create biodata can minimize these potential weaknesses, finding biodata to be viewed equally or more favorable than

other assessments. Thus, organizations should carefully screen biodata items to ensure they are job related, to increase positive user reactions. Another way to economically enhance user reactions is to improve written and oral assessment instructions. Providing applicants with informative instructions that thoroughly explain the concept and importance of validity can dramatically reduce the perceived invasiveness of the measure. Indeed, applicants who understand the concept of a valid test item, regardless of its face validity, are more accepting of seemingly irrelevant biodata items and are less likely to find them invasive (Mael et al., 1996).

Limitations and Future Directions

Although the results of this study provide theoretical and practical conclusions, it is important to discuss the potential limitations of the present study design so that future research can address and expound on these limitations. The self-report nature of the survey is associated with at least concerns: response distortion and common method variance (CMV). First, the correct or preferred answer to noncognitive assessments (e.g., personality, biodata) is oftentimes obvious, prompting subjects to "fake good", especially in high-stakes testing (e.g., selection context). Indeed, personality and biodata are criticized as being susceptible to faking (Lautenschlager, 1994). This poses a threat to internal validity as subjects may have responded in a socially desirable manner. To some extent, faking is expected in self-report surveys and probably cannot be avoided (Morgeson et al., 2007), potentially damaging the test's validity (Mueller-Hanson, Heggestad, & Thornton, 2003). However, self-report is not necessarily inferior to reports by others (Conway & Lance, 2010), as some research suggests response distortion accounts for a relatively small portion of variance (Barrick & Mount, 1996; Ellingson, Sackett, & Hough, 1999; Moorman & Podsakoff, 1992; Tett &

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Christiansen, 2007). Future research should examine the impact of elaborated biodata responses, as this has been shown to result in lower scores compared to non-elaborated biodata responses, without negatively impacting the criterion-related validity or subgroup mean differences (Ones, Viswesvaran, & Reiss, 1996; Schmitt et al., 2003). Furthermore, warning applicants of the possibility of detection and the consequences associated with faking reduces socially desirable responding (Dwight & Donovan, 1998; Mael et al., 1996).

Second, concerns about CMV should always be considered when information is collected through a self-report survey. CMV refers to the bias that occurs when variables are related due to the similarity in the way they are assessed, rather than reflecting the true relationship amongst variables (Campbell & Fiske, 1959). However, Spector (2006) argued that the "universally shared variance inherent in our methods is both an exaggeration and oversimplification…" (p. 230), even calling CMV an "urban legend". While the threat of CMV should be considered, I suggest that it does not pose a significant threat to the internal validity of the present study. Instead, I contend that many of the constructs examined here may be best captured through self-report (e.g., biodata, job satisfaction). For example, organizational commitment and job satisfaction refer to the psychological bond and appraisal between employees and their job and organization and is thus, best captured through self-report.

Selection research is often conducted on incumbents, which poses a threat to external validity because average validity coefficients are typically lower for job applicants (concurrent vs. predictive validity design; Bliesener, 1996; Harold, McFarland, & Weekley, 2006). Thus, the results of this study should be interpreted with caution as these findings may overestimate the validity coefficient an organization might find for job applicants. To

minimize the confounding effect of job incumbent experience, I included tenure in the first step in of all regression analyses. Results indicated that biodata accounted for incremental variance in the criterion measures, after controlling for participants' tenure. Future research should replicate these findings in a sample of applicants actively seeking employment. It is conceivable that motivational differences would be present in a genuine selection situation, potentially producing a different pattern of results. However, biodata is motivationally-laden, predicting typical, rather than maximum, performance, thus minimizing these concerns (Schmitt et al., 2003). Lastly, the present research suggested that the development of biodata enhanced user reactions; however, I could not directly test this theory. Future research should expound on this limitation, experimentally comparing user reactions of biodata developed in different ways.

Conclusion

I examined the incremental validity of and user reactions to the work habits biodata inventory whereby items were rationally-selected, empirically keyed, and cross-validated, predicting core task performance and job attitudes. Results suggested that biodata developed in this manner explain aspects of the criteria domains that are not predicted by cognitive ability and conscientiousness. These findings suggested that practitioners should consider implementing biodata into their selection procedures as it may predict employment behaviors and attitudes. Finally, results indicated that biodata developed in this way is viewed equally or more favorably than cognitive ability and conscientiousness.

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Table 1.

Intercorrelation Matrix.

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Work Habits Biodata	47.52	8.45	--									
2. Cognitive Ability	15.78	7.06	.206**	--								
3. Conscientiousness	2.68	0.20	.341**	.183*	.77							
4. Tenure	3.93	4.48	.255**	.123	.173*	--						
5. Job Performance	3.18	0.88	.339**	.209**	.283**	.314**	(.92)					
6. Job Satisfaction	3.42	0.81	.223**	-.109	.128	-.101	.127	.74				
7. Org Commitment	3.34	0.88	.278**	.039	.209*	.133	.164*	.464**	.75			
8. Biodata Reactions	4.24	1.13	.018	-.045	-.051	.019	.161*	.111	-.013	(.82)		
9. Cognitive Reactions	3.52	1.05	.003	-.048	-.082	-.015	-.032	.031	.077	.405**	(.71)	
10. Personality Reactions	4.27	1.11	.021	-.016	-.003	-.056	.045	-.008	-.048	.713**	.505**	(.80)

Note. ***$p < .001$, **$p < .01$, *$p < .05$. Job performance = core task performance; org commitment = organizational commitment.

Table 2.

Results of the Hierarchical Regression Predicting Core Task Performance

Predictors	Model 1 β	Model 2 β	Model 3 β	Model 4 β	Model 5 β	Model 6 β	Model 7 β	Model 8 β
Tenure	.314***	.243***	.292***	.233***	.265***	.222**	.263***	.222**
Cognitive Ability			.173**	.129*			.103	.082
Conscientiousness					.238***	.170*	.219**	.158*
Biodata		.277***		.253***		.220**		.211**
F-statistic	23.051***	21.536***	15.426***	15.915***	14.401***	12.800***	10.317***	9.941***
ΔF		18.149***	7.131**	14.858***	10.607***	8.320**	8.800**	7.571*
R^2	.098***	.170***	.128***	.186***	.149***	.190***	.159***	.196***
Adjusted R^2	.094***	.162***	.120***	.174***	.138***	.175***	.143***	.176***
ΔR^2		.072***	.030**	.058***	.055***	.041**	.045**	.037*

Note. ***$p < .001$, **$p < .01$, *$p < .05$, † = .10. Biodata = work habits biodata.

Table 3.

Results of the Hierarchical Regression Predicting Organizational Commitment

Predictions	Model 1 β	Model 2 β	Model 3 β	Model 4 β
Tenure	1.85*	.127	.151†	.112
Conscientiousness			.181*	.121
Work Habits Biodata		.256**		.223*
F-statistic	.663*	6.970***	4.615**	5.322**
ΔF		8.996**	4.445*	6.359*
R^2	.034*	.096***	.066**	.109**
Adjusted R^2	.027*	.082***	.052**	.089*
ΔR^2		.062**	.032*	.044*

Note. ***$p < .001$, **$p < .01$, *$p < .05$, † = .10.

Table 4.

Results of the Hierarchical Regression Predicting Job Satisfaction

Predictions	Model 1 β	Model 2 β	Model 3 β	Model 4 β
Tenure	-.105	-.169*	-.138†	-.185*
Conscientiousness			.157†	.111
Work Habits Biodata		.227**		.200*
F-statistic	1.641	4.543*	2.628†	3.625*
ΔF		7.374**	3.586†	5.459*
R^2	.011	.058*	.035†	.069*
Adjusted R^2	.004	.045*	.021†	.050*
ΔR^2		.047**	.024†	.035*

Note. ***$p < .001$, **$p < .01$, *$p < .05$, † $= .10$.

Appendix A

Core Task Performance

1. Uses critical thinking skills to analyze problems

2. Does not allow work to get behind schedule without notifying his/her superior

3. Produces the right level of quality given volume and time constraints

4. Consistently produces a high quality of work

5. Finds creative and effective solutions to problems

6. Does not knowingly repeat mistakes

7. Consistently produces a high quantity or volume of work

Appendix B

User Reactions Scale

1. Using this test would be a logical one for identifying qualified applicants

2. Using this test would identify the individual's important qualifications

3. This test is impersonal and cold

4. This test invades personal privacy

5. This test provides better information than an interview would

6. This test provides better information than resume or application blank

Appendix C

Job Satisfaction

1. Which of the following shows how much of the time you feel satisfied with your job?
   a. Never
   b. Occasionally
   c. About half of the time
   d. Most of the time
   e. All the time
2. Choose the one of the following statements which best tells how well you like your job.
   a. I hate it
   b. I don't like it
   c. I am indifferent to it
   d. I am enthusiastic about it
   e. I love it
3. Which one of the following best tells how you feel about changing your job?
   a. I would quit this job at once if I could
   b. I would take almost any other job in which I could earn as much as I am earning now
   c. I would like to exchange my present job for another one
   d. I cannot think of any jobs for which I would exchange
   e. I would not exchange my job for any other
4. Which one of the following shows how you think you compare with other people?
   a. No one dislikes his job more than I dislike mine
   b. I dislike my job much more than most people dislike theirs
   c. I like my job about as well as most people like theirs
   d. I like my job much better than most people like theirs
   e. No one likes his job better than I like mine

Appendix D

Organizational Commitment

Directions: Assume you were offered a position, but with another employing organization.

Would you leave your present organization under any of the following conditions? (Please

indicate what you would do by placing a check mark in the appropriate space).

	Yes Definitely	Uncertain	No Definitely Not
1. With no increase in pay			
2. With a slight increase in pay			
3. With a large increase in pay			
4. With no more freedom to be professionally creative			
5. With slightly more freedom to be professionally creative			
6. With much more freedom to be professionally creative			
7. With no more status			
8. With slightly more status			
9. With much more status			
10. To work with people who are no friendlier			
11. To work with people who are a little friendlier			
12. To work with people who are much friendlier			

Note. The responses of yes/definitely, uncertain, and no/definitely not change organizations were coded 3, 2, and 1, respectively.