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Keywords
remuneration, ascendancy, job, employability, life, career, American, European, personality, human capital

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This paper has not undergone formal review or approval of the faculty of the ILR School. It is intended to make results of Center research available to others interested in preliminary form to encourage discussion and suggestions.

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Abstract

The present study extended prior career success models by incorporating traits from the five-factor model of personality (often termed the "Big Five") and several dimensions of extrinsic (remuneration, ascendancy, job level, employability) and intrinsic (job, life, and career satisfaction) career success. The model examined both direct effects, and the mediating effects of an array of human capital and motivation variables derived from prior research. Data were collected from two large samples of American and European executives. Some results supported prior research: Extroversion related positively, and neuroticism negatively, to intrinsic career success across both the U.S. and European samples. Some results differed from expectations: (1) Conscientiousness was mostly unrelated to extrinsic success and negatively related to intrinsic success in both samples; (2) Agreeableness was negatively related to extrinsic success in both samples. Differences emerged between the European and American samples, in that: (1) Neuroticism associated with lower levels of extrinsic success for the American executives but not the Europeans; (2) Extroversion associated with higher levels of extrinsic success for the European executives, but not the Americans. For both samples, human capital and motivational variables associated predictably with career success, but seldom mediated the relationship between personality and career success.

Career Success
Executives
Personality
International

Executive Career Success in the U.S. and Europe: Effects of Personality

Career success has been an important and popular focus of investigation in the management literature. Judge, Cable, Boudreau, and Bretz (1995) defined career success as the extrinsic and intrinsic outcomes or achievements individuals have accumulated as a result of their work experiences (Gattiker & Larwood, 1988). Career success encompasses both "extrinsic" success elements, reflecting objective and externally visible criteria such as pay and ascendancy (Jaskolka, Beyer, & Trice, 1985), as well as "intrinsic" success elements which are subjectively defined by the individual, such as career or job satisfaction (Gattiker & Larwood, 1988).

Career success reflects the accumulated interaction between a variety of individual, organizational and societal norms, behaviors and work practices. Thus, it is an important element in our understanding of the long-term effects of worker mobility both within and across organizations. Understanding factors associated with career success is essential to our understanding of the relationships between individual traits and behaviors, organizational practices such as career planning and development, and societal and labor market processes that reflect what is ultimately valued in the labor market.

Because the intrinsic and extrinsic elements of career success are only moderately correlated, and often influenced by different factors (Bray & Howard, 1980; Harrell, 1969), studies of extrinsic and intrinsic career success require considering a wide range of influences including motivation, human capital, and possibly dispositional factors. Studies focusing on the career success of managers working in a single U.S. company (e.g., Howard & Bray, 1988) have provided valuable insights, but the focus on a single organization limits the degree to which differences in labor markets, industries, and company characteristics can be examined.

Drawing on theory and research from psychology, human resource management, and labor economics, Judge et al. (1995) examined career success by focusing on 1,400 executives employed in a diverse sample of U.S. organizations. They examined the extrinsic career success outcomes of pay and ascendancy (number of promotions), and intrinsic career success outcomes of career and job satisfaction. The Judge et al. model proposed five influences on career success: (1) demographics (e.g., age, race, sex), (2) human capital (e.g., education, experience), (3) motivation (e.g., hours desired and actually worked), (4) organization (e.g., organizational success, size), and (5) industry/region. They found that each category of variables influenced executive career success, with demographic, human capital, and motivational variables being most important.

Enduring individual dispositions play a key role in organizational behavior (House, Shane, & Herold, 1996), possibly including career success. Dispositional variables may affect career success directly, and indirectly through variables such as performance, motivation, and human capital, which in turn affect career success. Adding dispositions thus may lead to better understanding of the role of motivation and human capital in career success, as well as revealing new direct effects that add to predictive power.

Virtually all prior career success research focused solely on a single country or region, usually the U.S. The increasingly global nature of work and careers emphasizes the importance of examining international differences, which may reflect different labor markets, employment policies, and management practices. As noted earlier, career success may be particularly suited to reveal the effects of these differences, compared to more job or organization-specific work outcomes.

The present study extends prior models by: (1) Examining a broader set of extrinsic and intrinsic career success indicators; (2) Incorporating personality traits; and (3) Focusing on a diverse sample of both U.S. and European managers. This extended model allows us to examine the direct and indirect effects of personality traits on career success.

The Extended Career Success Model

Figure 1 depicts the complete model examined in this study, with the shaded areas representing constructs and relationships that have been added, and the unshaded areas representing the original model. For brevity, we refer the reader to the Judge et al. (1995) article for the theoretical and empirical evidence related to the unshaded portions, and focus here on the extensions.[1]

Additional Career Success Dimensions

Judge et al. (1995) measured extrinsic career success with remuneration and ascendancy, and intrinsic success with job and career satisfaction. Here we include two additional extrinsic aspects of career success, CEO proximity (Dreher & Bretz, 1991) and

[1] We did not include three categories of variables from the Judge et al. (1995) study (demographic, organizational, and industry/region) in the LISREL model. The model already included 230 and 167 freed parameters for the American and European samples, respectively. Adding the 22 additional control variables would more than double the number of estimated parameters, which would violate Bentler's (1985) recommended rule of thumb of five observations for every estimated parameter. To investigate the effect of including all the control variables on the results, we regressed each career success variable on all the variables in the Judge et al. study, as well as the Big Five traits. The results for the Big Five traits were similar to those reported here. Only seven of 65 links changed significance across the two samples, and no significant hypothesized linkage in the LISREL model became nonsignificant when the additional control variables were added.

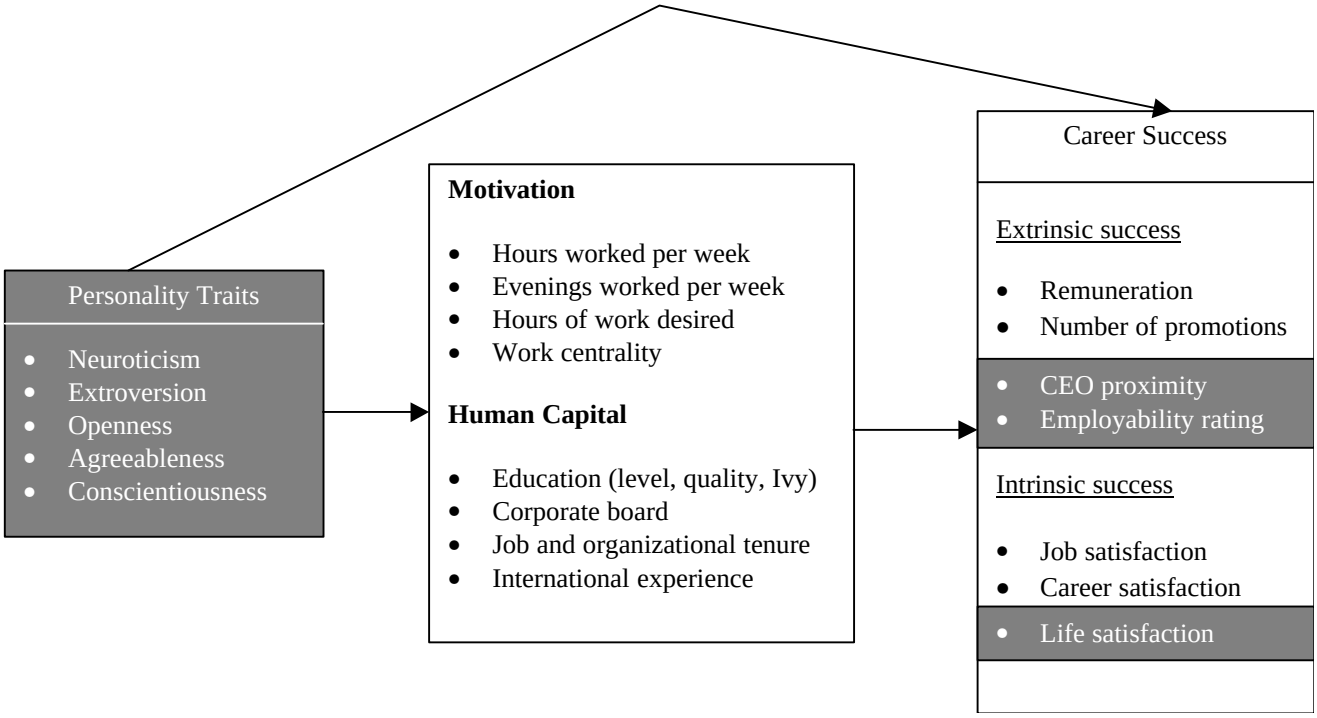
employability (Kilduff & Day, 1994), and one additional element of intrinsic success, life satisfaction (Judge & Bretz, 1994).

CEO Proximity within one's organization denotes higher responsibility and authority, all else equal (Dreher & Bretz, 1991). Judge and Bretz (1994) argued that job level should be added to extant definitions of extrinsic career success, particularly when studying high-level managers and executives. CEO reflects power, authority, and responsibility in the current organization, while ascendancy and remuneration reflect success relative to prior career stages, or compared to other organizations.

Figure 1.

Hypothesized model of executive career success.

(Note: Shaded areas represent variables that are unique to this study.)



Employability is arguably an increasingly relevant indicator of career success as multiple-employer and even multiple-profession careers become more common (e.g., Barrett, 1999; Blumfield, 1997; Cashman & Feldman, 1995; Ettorre, 1996; Kissler, 1994; Ruth, Bruner, & Chamernik, 1995). Kilduff and Day (1994) argued that the capacity for mobility is a key factor in achieving extrinsic success in managerial careers. Employability is different from mobility (e.g., movement across geographic areas or jobs), because it reflects the potential attractiveness of an individual to other employers as judged by gatekeepers such as search firms. Thus, it may capture career success elements not reflected in ascendancy or remuneration, by reflecting the views of external constituents.

Life satisfaction is important because achieving satisfaction with one's job or career at the expense of life satisfaction suggests limited career success (Bray & Howard, 1980; Judge & Bretz, 1994). Adding life satisfaction to career success also acknowledges the importance of work-life (or work-family) balance (Greenhaus & Beutell, 1985; Thompson, Beauvais, & Lyness, 1999). Life satisfaction seems particularly relevant in cross-national research, as the challenge of achieving a balance between life facets (e.g., work and family) may differ with social policies. For example, the U.S. arguably places greater responsibility for social support on individuals and their employers, compared to many European countries (e.g., Germany and Scandinavia). Thus, incorporating life satisfaction into models of career success may reveal differences across countries better than job or career satisfaction.

The "Big Five" Personality Traits and Career Success

In Figure 1 personality traits relate to career success both directly and through motivation and human capital. Motivation and human capital may change over time or with different work situations, but traits, such as personality, are enduring and stable individual predispositions that are either directly associated with career outcomes, or lead individuals to behave or seek out experiences that are associated with career outcomes (Tharenou, 1997). The effects of such enduring traits may be particularly evident among managers and executives, because objective performance measures are difficult to obtain, incomplete, or use incomparable units (e.g., sales, costs, growth), across different organizations or even within the same organization. As stated by Siegal and Ghiselli (1971), "…traits of general importance in managerial positions are likely to form the basis of the evaluation of him" (p. 130).

Personality might directly associate with extrinsic career success if traits such as assertiveness, emotional stability, and leadership motivation "fit" the tasks of the executive role (Tharenou, 1997), enhancing effective leadership, managing social interactions, and making complex and high-impact decisions. A direct association between personality and intrinsic

success could occur if personality traits, such as extroversion (e.g., Furnam & Zacherl, 1986; Headey & Wearing, 1989; McCrae & Costa, 1991), create a general tendency to react positively to outcomes of executive work, to act in ways compatible with the executive environment (e.g., Aryee, Chay, & Tan, 1994; Bretz & Judge, 1994), or to strive for success (Super, 1957; Tharenou, 1997). Personality may also affect career success indirectly through human capital and motivational variables. Those more open to new experiences may accept more international assignments, or Type A individuals may be more likely to work evenings or long hours.

Prior research suggests that some dispositions do associate with career success (Ghiselli, 1968; Ghiselli, 1969; Ghiselli, 1963; Siegel & Ghiselli, 1971). Tharenou (1997) reviewed the relatively few studies that investigated the personality correlates of career success, concluding that achievement orientation is clearly related to managerial advancement, with other traits receiving moderate support such as self-confidence and self-monitoring. To date, however, no study has examined the role of personality within a more comprehensive model, such as that presented in Figure 1, and virtually all research has focused on one or two personality variables at a time. No prior research has examined a broad array of personality traits, despite growing consensus supporting a general personality taxonomy.

Consensus is emerging that a five-factor model of personality, often termed the “Big Five” (Goldberg, 1990), can be used to describe the many salient aspects of personality. The Big Five can be found in virtually any measure of personality (e.g., McCrae & John, 1992), including the analysis of the trait adjectives in many languages, factor reanalyses of existing multidimensional measures, and decisions made by expert judges based on existing measures (see Mount & Barrick, 1995). The cross-cultural generalizability of the five-factor structure has been established through research in many countries, including Germany, Portugal, Korea, China, Israel, and the Netherlands (McCrae & Costa, 1997). Evidence indicates that the Big Five are fairly heritable and stable over time (Costa & McCrae, 1988; Digman, 1989), although the role of the environment in shaping features of one’s personality should not be dismissed. The Big Five traits have some theoretical justification as well. Buss (1996) draws from evolutionary theory in describing how the Big Five serve adaptive purposes in problem solving and social interactions such as forming cooperative alliances and negotiating hierarchies.

The dimensions comprising the five-factor model are neuroticism, extroversion, openness to experience, agreeableness, and conscientiousness. Neuroticism represents the tendency to exhibit poor emotional adjustment and experience negative affect such as anxiety, insecurity, and hostility. Extroversion represents the tendency to be sociable, assertive, active,

and experience positive affect such as energy, zeal, and excitement. Openness is the disposition to be imaginative, nonconforming, unconventional, and autonomous. Agreeableness is the tendency to be trusting, compliant, caring, and gentle. Conscientiousness is comprised of two related facets, achievement and dependability. Conscientiousness has found to be the major component of integrity (Hogan & Ones, 1997).

Comparing U.S. and European Executives

There is a significant need for research on international human resource management (DeCieri & Dowling, 1999; Ferris, Hochwarter, Buckley, Harrell-Cook & Frink, 1999), particularly for studies using rigorous research designs that move beyond descriptive case studies (Schuler & Florkiowlski, 1996). Career development is particularly lacking in international research (Ferris et al., 1999; Ricks et al. 1990) that "examines the cross-cultural generalizability" of findings (Sullivan, 1999, p. 476).

Yet international human resource management scholars lament the lack of sufficient theoretical perspective (Arvey, Bhagat & Salas, 1991; Ferris et al. 1999), which limits our ability to develop strong cross-cultural propositions. While not a comprehensive international model, the career success model in Figure 1 addresses, in part, the call for more quantitative and theory-based research frameworks in the area of careers.

Our purpose in comparing findings from the model across two different regions is in the spirit of the "Type II" research suggested by Bhagat and McQuaid (1982, p. 678) in which one "observes organizational phenomena" in different cultures. It is useful to compare U.S. and Western European managers because both regions have had relatively stable social and political systems for 20 to 30 years during which a sample of top executives would have pursued their careers. Our focus on career success argued against economies that have not yet, or only recently, developed to the point where broad career patterns can be discerned (e.g., many parts of Asia and Africa), or have undergone fundamental social and economic changes affecting careers and management (e.g., Central and Eastern Europe).

Western Europe has also been the subject of considerable discussion regarding management systems and leadership. Hofstede (1991) shows that most European countries, particularly Germany, Switzerland, Finland, and Austria, score higher on "uncertainty avoidance" (the tendency to be threatened by uncertain or unknown situations, and a desire to reduce ambiguity) than the U.S. This suggests a higher tolerance among American managers for ambiguity, deviant ideas, open-end discussion and decisions, and reliance on few formal rules (e.g., Hammer, 1999). Thus the U.S. might favor those high in openness. Hoftstede (1991) also notes that uncertainty avoidance is positively related to social indicators of anxiety. Neuroticism

might be more socially distinctive in the U.S. If neuroticism is detrimental to career success, this might suggest a greater detrimental effect in the U.S. than in Europe.

Hofstede (1991) suggests that European countries studied here are somewhat more "collectivist" than the U.S., which is more individualistic. This is reinforced by observations about social and workplace systems in Europe and the U.S. (Ulman, Eichengreen, & Dickens, 1993). Hammer (1999) notes that, "compared with the operations of American corporations, European firms and their managers are less autonomous. The autonomy is constrained at the national level by culture and legislation, at the corporate, or strategic, level of the firm by patterns of ownership, and at the workplace level by trade union involvement and required worker-participation programs" (p.104-105). Hammer concludes, "to manage within such constraints requires a leadership style, or process, that recognizes the reality of conflicting group interests and the rights of multiple stakeholders" (p. 105).

Brewster (1994) and Brewster and Larsen (1992) noted evidence of a "European" approach to HR that, compared to a U.S. model, places greater emphasis on country differences, adopts a more positive perspective toward unions, attaches greater importance to external constituents (e.g., governments and communities), and recognizes the "more limited autonomy (or greater support) afforded to managers" (p. 83). Germany has been characterized as "mechanistic" and legalistic in its approach (Gaugler & Wiltz, 1992). This suggests that social skills and connections may be more important for European executives, so extroversion may have a greater impact in Europe. Conscientiousness, to the extent that it reflects dependability in informal social contracts, might have a greater effect in Europe.

In summary, the present career success model associates motivational and human capital factors with career success, based on the theory and empirical evidence noted in Judge et al. (1995). The model extends prior research by incorporating the Big-Five personality traits, with both direct and indirect associations with career success. We now develop specific hypotheses for both the direct and indirect effects of each personality trait on career success.

Hypotheses Regarding Overall and Direct Effects of Personality Traits

Career success is different from job performance, but the most extensive application of the Big-Five personality model has been in personnel selection, with substantial evidence that the five factors predict job performance (Barrick & Mount, 1991; Tett, Rothstein, & Jackson, 1991). We briefly review this evidence and note its implications for career success, before reviewing the smaller body of research directly linking personality and career success. Three of the Big Five traits—conscientiousness, neuroticism, and extroversion—consistently relate to

managerial job performance. Conscientiousness and job performance were positively related in meta-analytic investigations of American (Barrick & Mount, 1991) and European (Salgado, 1997) employees. Neuroticism and job performance were negatively associated in two meta-analyses (Salgado, 1997; Tett et al., 1991). Extroversion did not display a significant correlation with job performance across all jobs, but Barrick and Mount's (1991) meta-analysis suggested a positive relationship specifically for managers. Even considering that pay and performance do not always significantly correlate within particular jobs (Gerhart & Milkovich, 1992), and that job performance is not the only factor in promotions and mobility, it seems reasonable to expect that consistently high levels of performance will associate with higher levels of long-term career success, thus suggesting that conscientiousness and extroversion may relate positively to career success, and neuroticism may relate negatively.

Job performance and career success are different, so it is important to look beyond research on personality and performance. For example, Ghiselli (1963) found that self-assurance predicted managers' occupational level, and Ghiselli (1969) found that self-assurance, decisiveness, achievement motivation, and need for self-actualization were valid predictors of stockbroker success. Self-assurance and initiative also positively associated with executive pay (Siegel & Ghiselli, 1971). Prior career success research has seldom employed the Big-Five personality taxonomy, but prior research on other personality traits is informative regarding each of the Big Five traits.

Neuroticism. Tharenou (1997) suggested that managerial positiveness or self-confidence was linked to advancement. In a longitudinal study of managerial progress, Howard and Bray (1988) found that ratings of "optimism," "self-confidence," and "well adjustedness" (low neuroticism) predicted advancement and promotions. Self-confidence also was found to predict earnings in a sample of MBA graduates five and twenty years after the original personality data were collected (Harrell, 1969; Harrell & Alpert, 1989). Self-confidence, optimism, and emotional adjustment are characteristic of low neuroticism (Goldberg, 1990; Mount & Barrick, 1995), suggesting that neuroticism should be negatively related to extrinsic career success. Emotional stability may be particularly important for individuals at higher organizational levels characterized with high levels of stress and external stimulation (Seibert & Kraimer, 1999). Neuroticism may be negatively related to intrinsic career success as well. Several studies have revealed a negative relationship between neuroticism and job satisfaction (Furnam & Zacherl, 1986; Smith, Organ, & Near, 1983), and life satisfaction (Headey & Wearing, 1989; McCrae & Costa, 1991), ostensibly because neuroticism is linked to the experience of negative affect

(Watson & Clark, 1997). There has been no prior research relating neuroticism and career satisfaction, a gap filled by the present study. In sum, neuroticism appears to associate with negative reactions to life and work situations particularly when they are demanding or stressful.

H-1: Neuroticism will be negatively related to (a) extrinsic and (b) intrinsic career success.

Extroversion. There is relatively little prior research on the relationship between extroversion and extrinsic career success, but the social nature of managerial and executive work suggests that those individuals who are energized by social situations (extroverts) should be more extrinsically successful. Childhood ratings of shyness (low extroversion) were negatively associated with adult occupational status (Caspi, Elder, & Bem, 1988). Among Stanford MBA graduates, extroversion was positively related to salary (e.g., Harrell, 1969; Harrell & Alpert, 1989). Extroversion associates with “activity” and “dominance,” typically associated with success in positions of leadership (Dunn, Mount, Barrick, & Ones, 1995). Regarding intrinsic success, extroversion has been related to job and life satisfaction in numerous studies (e.g., Furnam & Zacherl, 1986; Headey & Wearing, 1989; McCrae & Costa, 1991), presumably because extroverts are predisposed to experience positive emotions (Costa & McCrae, 1992; Watson & Clark, 1997). Extroverts may also be more likely to take actions to rectify unsatisfactory work situations thus leading to more positive experiences (Seibert & Kraimer, 1999). Thus,

H-2: Extroversion will be positively related to (a) extrinsic and (b) intrinsic career success.

Conscientiousness. Conscientiousness emerged as the best predictor of managerial job performance in meta-analyses of studies of Americans (Barrick & Mount, 1991) and Europeans (Salgado, 1997). Few studies have explored the direct association between conscientiousness and extrinsic career success, but considerable evidence supports a major facet of conscientiousness—achievement orientation. Tharenou (1997) noted that achievement orientation is most consistently related to managerial advancement. Barrick and Mount (1991) reported a “true” correlation of .17 between salary and conscientiousness, though based on a small number of available correlations (k=5). McClelland and Boyatzis (1982) reported that leadership motivation (moderate-to-high need for power, low need for affiliation, and high activity inhibition) and need for achievement predicted managerial job level. Conscientiousness is associated with being goal-directed, persistent, and well organized, which seem likely to associate with career success.

H-3: Conscientiousness will be positively related to extrinsic career success.

Agreeableness. Much less research exists on agreeableness and career success, though Howard and Bray (1988) reported a negative correlation between affability (nurturing, not aggressive, sympathetic, supportive) and ratings of management potential. Agreeableness associates with being trusting, submissive, and compliant, which could also be perceived as naïveté, docility, and a tendency to follow rather than lead. We include agreeableness in the model to address the limited empirical evidence. However, the lack of prior evidence coupled with the non- significant association between agreeableness and job performance precluded a formal hypothesis.

Openness. It is also difficult to support a hypothesis linking openness to career success. To our knowledge, there has been no research on this link, nor on personality traits associated with openness. As with agreeableness, we include openness in the model in part to address the lack of empirical evidence on this question, but it is not possible to suggest a hypothesis regarding the effect of openness on career success.

Hypotheses Regarding Indirect Effects of Personality Through Human Capital and Motivation

The model shown in Figure 1 suggests that personality may relate to career success through its association with human capital and motivation, which in turn affect career success (Judge et al., 1995). No prior research has tested both direct and indirect effects simultaneously, and most have not employed the Big Five taxonomy as we do here. Still, previous findings do have implications for the model in Figure 1.

Regarding human capital variables, Dearborn and Hastings (1987) found that women classified as Type A personality had shorter job tenure compared to those classified as Type B personality. Type A personalities have been positively associated with neuroticism, and conscientiousness, and negatively associated with agreeableness (Contrada, Leventhal & O'Leary, 1990; Mayer & Sutton, 1996). Close and Bergmann (1979) found an inverse relationship between dogmatism and educational attainment. Dogmatism has been associated with being closed-minded, which is similar to low openness. Three studies specifically focused on the Big Five, found that academic achievement associated negatively with neuroticism and positively with openness and conscientiousness (Digman, 1989; Hough, 1998; 1997). Openness has also been linked to the tendency to learn from experiences, which has been identified as a key trait of successful managers, particularly those who succeed in international assignments (Montagliani & Giacalone, 1997; Spreitzer, McCall & Mahoney, 1997).

Research has also linked personality to motivation variables (Barrick, Mount, & Strauss, 1993; Hansson, Hogan, Johnson, & Schroeder, 1983; Tang, 1986). Much of this research has focused on the influence of the Type A personality pattern, compared to the Type B pattern. Dearborn and Hastings (1987) found that women classified as Type A personality worked longer hours. Hansson et al. (1983) found those classified as Type A to be more ambitious and Tang (1986) found Type A's spend more "leisure" time on work tasks. A recent meta-analysis (Brown, 1996) found that individuals predisposed to be highly job involved were also more likely to have higher personality traits such as Protestant work ethic and self-esteem. One prior study related the Big Five traits to motivation. Barrick et al. (1993) found that sales representatives high in conscientiousness were more likely to set goals and be committed to those goals, which in turn was positively associated with job success (i.e., sales volume and supervisory ratings of job performance).

Thus, the small amount of prior evidence suggests an intriguing pattern of relationships between personality with human capital and motivation. Conscientiousness and extroversion appear to associate positively with the motivation and human capital variables studied and, through Type A personality, may relate positively to work motivation. An opposite effect for agreeableness is expected as this trait has been linked negatively to a Type A personality pattern. Openness seems to relate positively to the human capital variables of educational attainment and taking on new challenges. Neuroticism appears negatively related to educational attainment. The paucity of prior research, however, precludes specific hypotheses regarding individual personality dimensions with individual human capital and motivation variables. As a necessary first step, we will examine whether the personality dimensions associate with career success directly, or are generally mediated through human capital and motivation variables.

H-4: Motivation and human capital variables will partly mediate the relationship between personality and career success.

Method

Participants and Procedure

Participants were executives who had an ongoing relationship with a large international executive search firm. The search firm does not accept applications or resumes from individuals searching for positions, but instead potential candidates are identified only in direct response to a client's search for a specific position. Further, the search firm serves clients of all sizes, industries, and regions. This suggests that the sample drawn for this study should be fairly representative of the general population of executives. Data were collected in 1995 and 1996 from executives working in the United States and from executives working in Europe. Because

the data collection procedures varied somewhat between the two samples, the participants and procedure are described separately for each sample.

American sample. Surveys were mailed to 10,000 executives contained in the search firm's database. Executives were informed that participation was completely voluntary and confidential. The surveys were returned directly to the authors in pre-addressed, postage-paid envelopes. Surveys were encoded so that those returned could be matched with information contained in the search firm's database. A total of 1,885 surveys were returned (19% response rate). To determine whether respondents were representative of nonrespondents, the two groups were compared based on information contained in the search firm's database. Results suggested respondents were significantly more likely to be married (M_R=86%, M_{NR}=77%), were older (M_R=47.2, M_{NR}=45.4), and had more children (M_R=1.8, M_{NR}=1.5) than nonrespondents. However, respondents and nonrespondents did not differ with respect to any core study variable (i.e., any career outcome). Further, the demographics (i.e., primarily white and male) of our sample reflect the executive population (U.S. Census Bureau, 1998). The majority of respondents were White (95%) and male (90%). Average age of respondents was 47 years. Average remuneration earned by executives (including bonuses) was $164,618. The average executive had been promoted 7.9 times in his or her career, and was positioned 2 job levels below the CEO. The average number of employees in the executive's organization was 10,140. Executives were employed in a variety of industries, with the most common being high technology.

European sample. Surveys were distributed to a sample of 10,000 executives who had a relationship with the European offices of the search firm. For the most part, the survey was identical to the American survey. Because the search firm did not maintain a database of the career profiles of European executives, all variables were measured within the survey. Accordingly, surveys were returned anonymously. A total of 1,871 surveys were returned (19% response rate). Ninety-four percent of executives were male and 87% indicated that they spoke English fluently. Average age of respondents was 42.4 years. Average remuneration earned by executives (including bonuses) was $158,461. The average executive had been promoted 4 times in his/her career, was positioned 1.9 job levels below the CEO. The average number of employees in the executive's organization was 9,051. Although there were 66 nationalities represented in the sample, the most common were the following: German (59%), Danish (12%), Swiss (6%), Finnish (6%), Spanish (4%), Portuguese (2%), Dutch (2%), Austrian (2%), and French (2%).

Measures

Big five traits. The Big Five traits were measured with the NEO Personality Inventory, the most widely used and extensively validated measure of the five-factor model (Costa & McCrae, 1992). Each of the five traits in the NEO-FFI are measured by asking respondents to indicate their agreement with 12 statements, using a 1=Strongly disagree to 5=Strongly agree scale. Example statements include, “I often feel tense and jittery” (neuroticism), “My life is fast-paced” (extroversion), “I often enjoy playing with theories or abstract ideas” (openness), “I would rather cooperate with others than compete with them” (agreeableness), and “I have a clear set of goals and work toward them in an orderly fashion” (conscientiousness). Reliabilities of the NEO scales were as follows (coefficient alpha [α] reliability estimates are provided first for the American sample, followed by the α for the European sample): Neuroticism, α=.82, .74; Extroversion, α=.77, .70; Openness, α=.72, .71; Agreeableness, α=.71, .58; Conscientiousness, α=.80, .71.

One advantage of the NEO is that extensive cross-cultural evidence exists regarding its validity. The NEO has been validated in many European countries (e.g., Czechoslovakia, France, Germany, Holland, Netherlands, Norway, Poland, Portugal, Sweden). Recently, Costa and McCrae (1997) compared the factor structure of the NEO across seven cultures and found that the American factor structure was closely reproduced. To investigate the generalizability of the NEO with our data, we conducted a principal components analysis of the NEO for the American and European samples. Following McCrae and Costa’s (1997) procedure, we investigated factorial equivalence by computing congruence coefficients between varimax-rotated principal components from the two samples (essentially, these represent the correlations between the factor loadings of each sample). The congruence coefficients were .92 for neuroticism, .82 for extroversion, .88 for openness, .93 for agreeableness, and .90 for conscientiousness. These are comparable to those reported by McCrae and Costa (1997) and suggest that the factor structure of the NEO is comparable between the two samples.

Remuneration. Recognizing that a large part of an executive’s income is in the form of incentive-based pay, remuneration is defined here to include salary, bonuses, stock options, and other forms of cash compensation. For the American sample, data on total annual remuneration was obtained from the search firm’s database. Because the archival database was not available for European executives, their total remuneration (salary, bonus, stock, options, and other forms of cash compensation) was self-reported on the survey. It would appear the archival and self-reported measures are equivalent as, for the American sample, self-reported compensation correlated highly with the archival measure (r=.85, $p < .01$). Because most remuneration measures are disproportionately affected by a relatively few values

at the high end of the distribution, this degree of skewness can render standard statistical tests inappropriate. Accordingly, consistent with standard practice in wage regressions (e.g., Kerr & Kren, 1992), we normalized the distribution of the remuneration variable by computing its natural log.

Ascendancy. For both the American and European samples, ascendancy was measured on the survey by asking executives to indicate the total number of promotions they received in their career. We used the natural log of number of promotions because the data plots revealed a skewed distribution.

CEO proximity. For both samples, CEO proximity was measured on the survey by asking executives to report the number of job levels below the CEO they were positioned in their current organization. The natural log was also used to transform this variable, due to skewness in the data. These natural log values were then multiplied by negative one, to create an index of CEO proximity. In this way, more negative values indicate lower career success, so it is directionally consistent with the other extrinsic career success measures (remuneration, ascendancy, and employability).

Employability. An accomplishment rating taken from the search firm's archival database was used to assess employability. The search firm uses this information when deciding whether to recommend a candidate for a position at another company. The rating is a three-item scale comprised of: (1) flexibility and adaptability, (2) proficiency in current job, and (3) appearance, stature, and personal impact. Each of these specific ratings is evaluated on a 3=low, 4=average, and 5=high scale. This measure was only available for the American sample, and the reliability of this three-item scale was .68. We used the natural log of the employability rating for the analyses due to a skewed distribution.

Job satisfaction. For both samples, general job satisfaction was measured with the three items used by Judge et al. (1995). These items were the Gallup Poll measure of job satisfaction, the non-graphic version of the G. M. Faces Scale, and an adapted version of the Fordyce Percent Time Satisfied Item. Because the three items used different response formats, they were standardized before being combined (α=.83 for the American sample, α=.78 for the European sample).

Life satisfaction. The Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) measures asks individuals to respond to five general statements about their life ("If I had to live my life over again, I would change almost nothing"). The α of this scale was .88 for the Americans and .80 for the European sample.

Career satisfaction. Career satisfaction was measured with the five-item scale developed by Greenhaus, Parasuraman, and Wormley (1990), which asks individuals to report their satisfaction with five aspects of their career (overall success, progress toward career goals, income, advancement, development of new skills). For the American sample, α=.89. For the Europeans, α=.85.

Human capital variables. For the American sample, all human capital variables were taken from the search firm's database, which indicated the university attended and degree received. Level of education was the highest degree received (coded 0=bachelor's degree, 1=master's degree or higher). Whether the executive's highest degree was from an Ivy League school was coded 1=yes, 0=no. Consistent with Judge et al. (1995), quality of the executive's highest degree was measured using The Gourman Report (Gourman, 1993), which rates university quality using a continuous scale ranging from 1.0 to 5.0. The Gourman rating was applied to the university from which the executive's highest degree was granted, based on the rating of the major in which the degree was earned. Whether or not the executive occupied a position on a corporate board of directors, years of job tenure, years of organizational tenure, and international experience (coded 1=yes, 0=no) were collected from information in the search firm's database. For the European sample, all of these human capital variables were measured with items on the survey, with the following exceptions: information on education quality and prestige was not available, nor was information on whether the executive served on a board of directors. Nearly all business-oriented degrees in Europe are in economics, so we used an economics major dummy variable for the Europeans rather than a business major dummy variable.

Motivational variables. For both American and European samples, hours worked per week, number of evenings worked per month, number of hours per week the executive wished to work were assessed with survey questions. Work centrality was measured by asking the individual to assign 100 points to five different life domains (work, family, religion, leisure, and community) (MOW International Research Team, 1987).

Covariance Structure Analysis

Covariance structure analysis, estimated in the present study using LISREL 8 (Jöreskog & Sörbom, 1993), was used to test the hypothesized model shown in Figure 1. The model included the two indirect paths: (1) from the personality traits to the motivation and human capital variables, and (2) from the motivation and human capital variables to extrinsic and intrinsic career success. It also included the direct link from personality traits to extrinsic and intrinsic career success. LISREL coefficient estimates and standard errors for direct, indirect,

and total effects were used to test significance. Due to the complexity of this model and the prior evidence of construct validity for the personality dimensions, only the manifest variable model was tested. Two models were estimated—one for the American sample and one for the European sample. The structure of the models were identical except that some of the variables included in the American model were not available in the European sample (quality of highest degree, Ivy League graduate, and director position). Because the Big Five traits, and the intrinsic success variables, were measured with error, these measures were corrected for unreliability.

When evaluating the results of a covariance structure analysis, it is important to evaluate its overall fit. Accordingly, we report the following fit statistics: chi-square (χ^2), Root Mean Square Error of Approximation (RSEA), Goodness-of-fit Index (GFI), Normed Fit Index (NFI), Comparative Fit Index (CFI), and Incremental Fit Index (IFI) (Medsker, Williams, & Holahan, 1994). Although levels of the χ^2 statistic cannot be interpreted independent of the sample size, rules of thumb suggest that the RSEA should be no greater than .10 while values of GFI, NFI, CFI, and IFI should be greater than .90 (Medsker et al., 1994).

Results

Tables 1 and 2 contain descriptive statistics and intercorrelations among the study variables for the American and European samples, respectively. In both samples, restriction of range was notable only for CEO proximity, which reached an “out of bounds” value (restricted range based on ±2 standard deviations from the mean). As we will see, this apparently did not preclude significant relationships with the other variables in the model, though it may make findings conservative with regard to CEO proximity.

Table 1

Means (M), Standard Deviations (SD), and Intercorrelations of Study Variables (American Sample)

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Log remuneration	11.83	0.57	---													
2. Log ascendancy	1.95	0.51	25	---												
3. Log CEO proximity	-0.71	0.60	30	21	---											
4. Log employability rating	1.49	0.01	22	01	08	---										
5. Job satisfaction	0.00	2.60	11	10	06	07	---									
6. Life satisfaction	25.13	5.83	16	07	04	10	43	---								
7. Career satisfaction	24.58	6.13	24	13	13	11	45	65	---							
8. Evenings worked per month	5.17	4.39	19	10	05	08	01	-01	03	---						
9. Hours worked per week	56.52	10.68	18	09	05	08	05	-02	02	23	---					
10. Hours of work desired	48.45	9.57	18	05	04	05	06	07	03	09	48	---				
11. Work centrality	38.68	15.87	07	04	05	-02	03	-16	-04	08	17	10	---			
12. Board of directors position	0.01	0.15	16	05	06	05	04	00	04	00	06	00	02	---		
13. Graduate degree	0.72	0.62	07	-18	-01	-03	00	-04	-03	-02	03	05	08	06	---	
14. Quality of highest degree	2.36	2.02	16	-08	03	08	-02	-02	-01	-04	00	05	05	04	24	---
15. Ivy League graduate	0.10	0.30	19	-06	02	09	01	02	01	01	-02	04	05	03	13	36
16. Business degree	0.63	0.48	06	04	07	03	-05	-01	-05	-01	00	05	03	03	01	16
17. Engineering degree	0.12	0.33	00	08	-03	00	02	00	03	08	-02	03	-01	-01	-14	-06
18. Law degree	0.01	0.18	09	-11	02	-13	-02	-04	-06	-06	02	01	01	04	35	13
19. Job tenure	3.37	4.10	-01	-02	04	-01	-01	-02	-05	-02	-08	-08	03	03	-07	-01
20. Organizational tenure	5.88	6.50	03	-02	-19	-03	-03	05	01	00	-05	-04	00	01	-07	-02
21. International experience	0.36	0.48	16	11	09	04	-01	-05	-02	12	03	00	07	03	06	07
22. Neuroticism	25.27	6.16	-12	-15	-07	-02	-22	-32	-25	-01	01	-09	03	-03	07	03
23. Extroversion	45.90	5.21	04	11	06	05	15	24	18	06	09	09	-02	-01	-12	-06
24. Openness	41.25	5.54	04	-01	03	06	03	02	05	06	08	05	08	01	13	05
25. Agreeableness	43.84	4.93	-09	-03	-02	-05	03	15	07	-05	-06	-04	-08	-03	00	-01
26. Conscientiousness	49.48	4.98	04	06	04	-01	01	09	08	02	05	05	04	02	-02	-04

Table 1 Continues

Table 1 (Continued)

Variable	15	16	17	18	19	20	21	22	23	24	25	26
16. Ivy League Graduate	---											
17. Business degree	13	---										
18. Engineering degree	-09	-49	---									
19. Law degree	-01	-25	-07	---								
20. Job tenure	-02	-03	05	00	---							
21. Organizational tenure	-01	-07	08	02	25	---						
22. International experience	10	03	05	-03	01	-03	---					
23. Neuroticism	-01	-02	-03	08	-02	-04	-01	---				
24. Extroversion	-01	-03	00	-03	-02	00	-01	-42	---			
25. Openness	07	-13	-02	05	-02	-03	05	-10	24	---		
26. Agreeableness	-02	-02	-03	-02	-04	02	-07	-30	32	09	---	
27. Conscientiousness	00	02	02	-02	-01	03	03	-35	29	00	18	---

Notes: Decimals omitted from correlations. Because an accomplishment (i.e., employability) rating was only available for roughly half (N=818) of the sample, all correlations were computed using pairwise deletion. Except for employability, correlations $\geq |.07|$ are significant at $p < .01$; those $\geq |.05|$ are significant at $p < .05$. With employability, correlations $\geq |.10|$ are significant at $p < .01$; those $\geq |.07|$ are significant at $p < .05$.

Table 2
Means (M), Standard Deviations (SD), and Intercorrelations of Study Variables (European Sample)

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Log remuneration	11.86	0.46	---													
2. Log ascendancy	1.36	.53	36	---												
3. Log CEO proximity	-0.98	0.58	61	38	---											
4. Job satisfaction	0.00	2.50	25	15	28	---										
5. Life satisfaction	26.25	4.41	13	05	10	35	---									
6. Career satisfaction	26.20	4.71	29	18	29	45	57	---								
7. Evenings worked per month	5.97	4.72	19	12	13	02	-05	04	---							
8. Hours worked per week	56.52	8.81	21	14	13	08	-01	09	21	---						
9. Hours of work desired	48.94	8.40	17	10	11	09	03	04	12	59	---					
10. Work centrality	42.77	13.58	07	00	05	02	-12	01	08	21	19	---				
11. Graduate degree	0.70	0.46	04	-03	01	00	-01	-01	-04	03	02	03	---			
12. Economics degree	0.55	0.50	15	11	10	04	03	08	-04	01	02	04	21	---		
13. Engineering degree	0.32	0.47	-04	-05	-01	-04	00	-04	09	04	06	-01	-20	-35	---	
14. Law degree	0.01	0.28	04	-01	01	-01	-04	-05	01	02	00	-02	17	-05	-19	---
15. Job tenure	3.17	3.00	16	-03	20	03	00	00	-07	-10	-09	-05	-11	-02	-03	02
16. Organizational tenure	7.15	6.87	12	15	08	08	02	03	-06	-03	-03	-02	-09	-04	-04	01
17. International experience	0.63	0.48	09	12	11	05	05	04	15	07	09	01	-01	02	03	-01
18. Neuroticism	25.59	5.56	-10	-04	-04	-20	-27	-21	-02	-12	-18	-08	-03	-01	-03	03
19. Extroversion	43.48	4.79	18	17	14	18	21	22	11	17	17	08	-02	05	-01	-04
20. Openness	40.02	4.89	04	01	00	-01	00	06	04	04	00	01	07	-04	-05	01
21. Agreeableness	40.31	4.59	-06	-03	-09	02	07	08	-07	-02	-05	-04	07	-06	-02	-04
22. Conscientiousness	47.30	4.80	09	04	00	05	18	17	04	12	14	12	-02	06	00	-08

Table 2 Continues

Table 2 (Continued)

Variable	15	16	17	18	19	20	21	22
16. Job tenure	---							
17. Organizational tenure	46	---						
18. International experience	-10	-03	---					
19. Neuroticism	04	04	-02	---				
20. Extroversion	-08	-07	13	-38	---			
21. Openness	-05	-07	06	-18	23	---		
22. Agreeableness	-04	-02	-04	-18	10	11	---	
23. Conscientiousness	-05	-06	07	-39	33	06	12	---

Notes: Decimals omitted from correlations. Correlations $\geq |.07|$ are significant at $p < .01$; those $\geq |.05|$ are significant at $p < .05$.

The correlation matrices for the American and European samples are fairly similar, and the measures behaved as expected. The three intrinsic career success measures are moderately correlated. Extrinsic and intrinsic career success are moderately correlated, with intrinsic career success among the European sample being somewhat more strongly positively related to CEO proximity.

Among the human capital and motivation variables, actual and desired hours of work are positively correlated, reflecting that executives control their work schedules. In the U.S. sample, having an engineering degree relates negatively to having a business degree, and the quality of the highest degree relates moderately positively to having a degree from an Ivy League university.

The bivariate correlations between the Big Five traits and career success variables are relatively small, but follow a consistent pattern. All intrinsic success measures have a negative correlation with neuroticism and a positive correlation with extroversion, in both samples. Moreover, these correlations are not corrected for measurement error, and do not reflect possible suppression effects from other variables, limitations that are remedied in the LISREL model.

The hypothesized LISREL models were based on Figure 1, and fit the data well for both the American and European samples. The fit statistics for the American sample were: $\chi^2(148,1505)=393.82$ ($p < .01$), RMSEA=.03, GFI=.98, NFI=.94, CFI=.96, and IFI=.96. The fit statistics for the European sample were: $\chi^2(109,1315)=497.45$ ($p < .01$), RMSEA=.05, GFI=.97, NFI=.91, CFI=.92, and IFI=.93. For clarity the results are presented in tables, rather than as coefficients on a path diagram. Tables 3 through 7 show the complete results, and have been arranged in right-to-left order, to correspond directly to the hypothesized model of Figure 1. Tables 3 and 4 depict the total, direct and indirect effects of the Big Five personality traits on each extrinsic and intrinsic career success measure. The “total” effects of Tables 3 and 4 reflect the combined effects of all the paths (all three arrows in Figure 1) from each personality trait to each career success measure. The “direct” effects reflect the upper arrow of Figure 1. The “indirect” effects reflect the combined effects of the two middle arrows in Figure 1. Tables 5 and 6 depict the relationships between the two right-hand boxes in Figure 1 – the effects of motivation and human capital variables on each of the career success variables – for the American and European samples, respectively. Finally, Table 7 reflects the relationships between the two left-hand boxes in Figure 1 – the effects of each of the Big Five personality traits on the human capital and motivation variables – for both samples.

For there to be indirect effects between personality and career success, a necessary (though not sufficient) requirement is significant associations between career success and the motivation and human capital variables. Therefore, we will first establish the existence and pattern of associations between career success and motivation or human capital variables in Tables 5 and 6. Then, we proceed to the key question of this study – whether, and in what way, the Big Five traits associate with extrinsic and intrinsic career success, tracing any indirect effects from Tables 3 and 4 through the other tables.

Table 3

Direct, Indirect, and Total Effects of Big Five Traits on Career Success: American Sample

	Extrinsic Success					Intrinsic Success	
Big Five Trait	Remuneration	Ascendancy	CEO Proximity	Employability Rating	Job Satisfaction	Life Satisfaction	Career Satisfaction
Neuroticism							
Direct	-.30**	-.21**	-.10	-.03	-.42**	-.42**	-.41**
Indirect	-.01	.00	.00	-.02	.01	-.01	.02
Total	-.31**	-.21**	-.10	-.05	-.41**	-.43**	-.39**
Extroversion							
Direct	.04	.08	.10	.14	.20*	.22*	.16*
Indirect	.01	.07**	.02	.00	-.01	-.01	.02
Total	.05	.15	.12	.14	.19*	.21*	.18*
Openness							
Direct	-.02	-.03	.01	.03	-.10	-.09	-.05
Indirect	.06**	-.04*	.00	.01	.04**	-.01	.01
Total	.04	-.07	.01	.04	-.06	-.10	-.04
Agreeableness							
Direct	-.24**	-.14**	-.14**	-.15**	-.19**	-.09	-.20**
Indirect	-.08**	-.05**	-.03	-.01	.00	.03*	.02
Total	-.32**	-.19**	-.17**	-.16**	-.19**	-.06	-.18**
Conscientiousness							
Direct	-.07	-.05	-.01	-.04	-.23**	-.15**	-.12*
Indirect	.03	.00	.00	-.01	.01	-.02	-.01
Total	-.04	-.05	-.01	-.05	-.22**	-.17**	-.13*

Note: * $p < .05$ (two-tailed); ** $p < .01$ (two-tailed).

Table 4

Direct, Indirect, and Total Effects of Big Five Traits on Career Success: European Sample

	Extrinsic Success			Intrinsic Success		
Big Five Trait	Remuneration	Ascendancy	CEO Proximity	Job Satisfaction	Life Satisfaction	Career Satisfaction
Neuroticism						
Direct	-.05	.03	-.07	-.28**	-.29**	-.19**
Indirect	-.01	.01	.00	.00	.01	.02
Total	-.06	.04	-.07	-.28**	-.28**	-.17**
Extroversion						
Direct	.26**	.22**	.30**	.33**	.25**	.32**
Indirect	.05*	.04**	.02	.00	-.02	.00
Total	.31**	.26**	.32**	.33**	.23**	.32**
Openness						
Direct	-.02	-.03	-.10*	-.17**	-.15**	-.09
Indirect	-.02	-.02	.00	.00	.00	.00
Total	-.04	-.05	-.10*	-.17**	-.15**	-.09
Agreeableness						
Direct	-.11*	-.02	-.17**	-.10	-.03	-.05
Indirect	-.06**	-.03	-.04*	.00	.03*	.01
Total	-.17**	-.05	-.21**	-.10	.00	-.04
Conscientiousness						
Direct	-.02	-.04	-.18**	-.20**	.04	-.01
Indirect	.01	.00	.01	.00	-.02	.00
Total	-.01	-.04	-.17**	-.20**	.02	-.01

Note: * $p < .05$ (two-tailed); ** $p < .01$ (two-tailed).

Table 5

Direct Effects of Motivation and Human Capital Variables on Career Success: American Sample

	Extrinsic Success				Intrinsic Success		
	Remuneration	Ascendancy	CEO Proximity	Employability Rating	Job Satisfaction	Life Satisfaction	Career Satisfaction
Motivational variables							
Evenings worked	.18**	.05	.05	.05	-.01	.00	.02
Hours worked	.11**	.07*	.02	.05	.05	-.02	.02
Hours of work desired	.10**	-.01	.02	.00	.00	.06	-.02
Work centrality	.00	.03	.01	-.05	.04	-.16**	-.04
Human capital variables							
Director	.13**	.03	.02	.04	.03	-.01	.02
Graduate degree	-.01	-.14**	-.05*	.00	.06	.04	.03
Education quality	.10**	-.04	.01	.09**	-.01	.00	.02
Ivy League graduate	.15**	-.05	-.01	.05	.01	.03	.00
Business degree	.07	.08*	.11**	-.03	-.10*	-.04	-.08*
Engineering degree	.02	.08*	.02	-.02	-.03	-.02	-.02
Law degree	.13**	-.01	.06*	-.15**	-.04	-.03	-.08*
Job tenure	-.04	-.04	.06*	.00	-.02	-.04	-.09*
Organizational tenure	.07*	-.01	-.16**	-.01	-.03	.07*	.04
International experience	.11**	.09**	.05*	.01	-.03	.04	-.05

Notes: Table entries are standardized path coefficients; * $p < .05$ (two-tailed); ** $p < .01$ (two-tailed).

Table 6

Direct Effects of Motivation and Human Capital Variables on Career Success: European Sample

	Extrinsic Success			Intrinsic Success		
	Remuneration	Ascendancy	CEO Proximity	Job Satisfaction	Life Satisfaction	Career Satisfaction
Motivational variables						
Evenings worked	.16**	.07*	.07*	-.02	-.08*	.00
Hours worked	.13**	.08*	.06	.03	-.04	.08
Hours of work desired	.05	.01	.03	.00	-.02	-.09*
Work centrality	.01	-.04	.02	-.01	-.19**	-.04
Human capital variables						
Graduate degree	.06*	-.03	.06*	.02	.01	.00
Economics degree	.15**	.09**	.06	.00	.00	.05
Engineering degree	.02	-.02	.02	-.07	-.01	-.04
Law degree	.04	-.01	-.01	-.03	-.03	-.05
Job tenure	.15**	-.15**	.14**	-.02	-.02	-.06
Organizational tenure	.10**	.22**	.00	.11**	.05	.07
International experience	.03	.06*	.06*	.03	.04	-.01

Notes: Table entries are standardized path coefficients; * $p < .05$ (two-tailed); ** $p < .01$ (two-tailed).

Table 7

Direct Effects of the Big Five Traits on Motivation and Human Capital Variables: Both Samples

	Motivation Variables				Human Capital Variables						
	Evenings worked	Hours worked	Hrs work desired	Work centrality	Graduate degree	Business degree	Engineer degree	Law degree	Job tenure	Organiz. tenure	Inter. exp
American Sample											
Neuroticism	.03	.11*	-.09	.02	.01	-.05	-.07	.12*	-.10	-.04	-.06
Extroversion	.15*	.22**	.14*	-.06	-.34**	.02	-.01	-.02	-.04	.00	-.06
Openness	.04	.06	.02	.14**	.24**	-.17**	-.02	.08	-.01	-.05	.10*
Agreeableness	-.14**	-.16**	-.17**	-.12*	.11*	-.03	-.07	.02	-.07	.01	-.12*
Conscientiousness	.01	.07	.00	.12**	.10*	.00	.01	.04	-.02	.01	.07
European Sample											
Neuroticism	.04	-.04	-.16**	-.03	-.04	.02	-.07	-.03	-.02	-.02	.08
Extroversion	.15**	.15**	.13**	.03	-.07	.06	-.01	-.02	-.07	-.03	.16**
Openness	.03	-.01	-.07	.00	.09*	-.06	-.07	.03	-.04	-.08*	.05
Agreeableness	-.12*	-.06	-.12*	-.08	.09*	-.08	-.04	-.05	-.07	-.02	-.07
Conscientiousness	.01	.05	.04	.12**	-.03	.07	-.02	-.10*	-.02	-.05	.06

Notes: Table entries are standardized path coefficients; * $p < .05$ (two-tailed); ** $p < .01$ (two-tailed). Due to space constraints, minimal significant effects, and that the effects are not available for the European sample, the path coefficients for director, quality of major, and Ivy league degree are not shown.

Motivation and Human Capital Variables Associated with Career Success

Remuneration. For the Americans (Table 5), remuneration positively associated with the motivation variables of actual and desired work time, and with the human capital variables of director, education quality, organizational tenure and international experience, as expected (e.g., Judge, et al., 1995). The European pattern (Table 6) was similar to the American sample, though job tenure was significant for the European sample, and international experience was non-significant.

Ascendancy. Motivation and human capital significantly related to ascendancy, though not as consistently as remuneration, and with some interesting contrasts between the two samples. International experience was positively associated with ascendancy in both samples, and having a graduate degree was negatively associated with ascendancy among the Americans, perhaps reflecting that those with graduate degrees enter more technical career paths. Job tenure was negatively associated, and organization tenure positively associated with ascendancy among the Europeans, but not the Americans. For European managers, rapid promotion means spending less time in each job, but careers may span fewer organizations.

CEO proximity. Motivation variables showed weak though positively associations with CEO proximity in both samples, while human capital variables were significant. In both samples, greater CEO proximity associated with international experience and job tenure (less job switching after reaching high levels). Having a graduate degree associated negatively with CEO proximity among the Americans (Table 5), but positively for the Europeans (Table 6). A business/economics or law degree and organizational tenure associated with CEO proximity only in the American sample.

Employability Rating. This measure was available only for the American sample (Table 5), and showed few relationships with motivation and human capital variables, associating positively with education quality and negatively with having a law degree. We would expect fewer indirect effects on employability rating, in light of these results. The search firm raters may be trying to capture less observable characteristics, to compliment the existing information available in the search firm records.

Intrinsic career success (job, life and career satisfaction). Motivation and human capital variables were only moderately associated with intrinsic career success, in both samples. Work centrality was most consistent, negatively associating with life satisfaction in both samples, perhaps reflecting an over-emphasis on work. Among Americans, a business degree associated

with lower job satisfaction, and lower career satisfaction was associated with a business or law degree and greater job tenure (perhaps due to a career plateau). Organization tenure, in contrast, positively associated with life satisfaction for Americans, and job satisfaction for Europeans.

Overall, the relationships in Tables 5 and 6 support prior research (e.g., Judge et al., 1995) and reveals interesting distinctions between the U.S. and Europe. The results suggest that the extended career success model of Figure1 captured associations between human capital, motivation, and career success that are sufficient to support indirect personality effects through motivation and human capital. We now discuss these indirect and direct effects for each personality dimension.

Neuroticism and Career Success

Among the extrinsic success measures, neuroticism associated negatively with remuneration and ascendancy, in the American sample (Table 3), partially supporting Hypothesis 1a, and solely through direct effects, failing to support Hypothesis 4. This was not the case in the European sample (Table 4), where neuroticism had non-significant direct, indirect, and total associations with all extrinsic success measures. The non-significant indirect effects are not explained by weak relationships between human capital and career success, but by mixed and non-significant effects on both motivation and human capital variables in both samples (Table 7).

For intrinsic success, European and American results were more similar, and consistent with the American extrinsic success pattern. Tables 3 and 4 show significant direct and total negative effects for neuroticism with all intrinsic career success measures, for both samples, supporting Hypothesis 1b. Non-significant indirect relationships correspond to the extrinsic success results.

Extroversion and Career Success

Extroversion associated quite differently with extrinsic career success between the two samples. Among the American managers (Table 3), extroversion had little direct or indirect association with extrinsic career success, failing to support Hypothesis 2a and Hypothesis 4. In contrast, for the Europeans (Table 4) all of the total and direct effects were significant and positive, as were two of three indirect effects, supporting Hypothesis 2a and Hypothesis 4. The contrast in direct effects suggests that extroversion is much more consistently and directly rewarded among the Europeans than the Americans, over and above the effect through human

capital and motivation. The implications for this finding regarding differences between the two cultures are discussed below.

We can empirically examine the indirect effects through the extended model of Figure 1, and the coefficients in Tables 5, 6, and 7. Notably, both samples revealed a significant indirect positive effect on ascendancy. For the Americans this seems to reflect a path through greater hours worked and less likelihood of having a graduate degree. For the Europeans, the path from extroversion to both ascendancy and remuneration also reflects greater evenings and hours worked, but uniquely reflects greater international experience. Extroversion and international experience correlate more strongly among Europeans (bivariate correlation of .13 in Table 2) than among Americans (bivariate correlation of -.01 in Table 1).

The results for extroversion and intrinsic success showed remarkable consistency between Europe and the U.S., considering the differences in extrinsic success. Tables 3 and 4 show that for both the Europeans and Americans managers, intrinsic success exhibited positive associations with extroversion, supporting Hypothesis 2b, and these were solely direct, failing to support Hypothesis 4.

Openness and Career Success

Openness revealed the fewest significant total effects, and the least consistent pattern of all the personality dimensions. Among the Europeans, effects were direct and negative on CEO proximity and both job and life satisfaction. Among Americans, the effects were indirect and positive for salary but negative for ascendancy. The positive indirect effect on remuneration seems to reflect a path through greater international experience. The weak negative indirect effect on ascendancy seems to reflect a path through having a graduate degree and not having a business degree, offset by having international experience.

Agreeableness and Career Success

Tables 3 and 4 reveal agreeableness to be negatively associated with extrinsic career success, for both samples. For both European and the American managers, agreeableness exhibited negative direct, indirect, and total associations with remuneration and CEO proximity. Among the Americans, this was also true for ascendancy and for the direct effect on employability rating. The direct effects suggest that in both samples, more agreeable individuals achieve less extrinsic success, over and above any effects on human capital variables.

Among the Europeans, the indirect effects for both remuneration and CEO proximity seem to reflect a path through which more agreeable managers work fewer evenings and less

frequently have a business degree, offset by more frequently having a graduate degree. Among the Americans, the negative indirect effects on extrinsic success seem to reflect a path through which more agreeable managers have lower desired and actual work time (especially for remuneration), more likely have a graduate degree, and have less international experience.

The two samples differ regarding agreeableness and intrinsic success, with negative direct effects among the Americans for job and career satisfaction, but non-significant effects for the Europeans. Being more agreeable seems to associate with dissatisfaction for American managers, beyond its effects on their human capital and motivation, while European managers' satisfaction seems unaffected.

Conscientiousness and Career Success

The bottom section of Tables 3 and 4 contain the results for the final personality dimension – conscientiousness. Conscientiousness effects were all negative, and always direct, not indirect. The pattern differed between the two samples. For the Americans, conscientiousness reveals negative associations with all intrinsic success dimensions, but none of the extrinsic dimensions. For the Europeans, the negative associations reached significance for one extrinsic success factor – CEO proximity – and one intrinsic success factor – job satisfaction. These results failed to support Hypothesis 3a and contradicted Hypothesis 3b, for the Americans, and moderately contradicted Hypothesis 3a and 3b for the Europeans. The lack of indirect effects failed to support Hypothesis 4 for both samples.

Discussion

This study set out to extend prior models showing career success to be associated with motivational and human capital variables by: (1) Broadening the set of career success indicators to include CEO proximity, employability ratings by search professionals, and life satisfaction; (2) Incorporating a comprehensive array of enduring personality traits to complement the traditional array of human capital and motivation factors; and (3) Examining potential cross-cultural differences by comparing European and American managers. Results suggested that each of these extensions provided unique new insights into career success.

Adding CEO proximity was valuable in that it revealed a different pattern from the two more typically studied career success variables. CEO proximity exhibited fewer significant direct and indirect relationships than remuneration or ascendancy. This may suggest that the array of motivation, human capital, and personality variables is more relevant to the more "externally" anchored career success measures than to hierarchical position "internal" to the current

organization. CEO proximity did reveal a different relationship with openness and conscientiousness, comparing the U.S. and the European samples, which suggests that adding CEO proximity to the array of outcome variables is useful, especially considering that these two variables are among the least previously studied.

Employability ratings were available only for the U.S. sample, and the direct and indirect effects with employability ratings were similar to remuneration and ascendancy, but reached statistical significance only for agreeableness. It would appear that future research might strive to create better measures of this construct.

Similarly, life satisfaction behaved, for the most part, similarly to job and career satisfaction, though revealing a stronger negative relationship with work centrality than job or career satisfaction (Table 5), suggesting it may have uniquely captured tendencies to overemphasize work. The similarity between life and job/career satisfaction patterns revealed here reinforces previous research, and may be especially true for managers and executives, who may well have a closer association between job, career, and life outcomes. This is not to say that life satisfaction is not a useful career success measure, but we may expect it to behave more distinctly among other types of workers.

Value of Comparing Europe and the U.S.

The value of a comparative approach was vividly demonstrated by these results. For many of the personality dimensions, results for European and American executives differed, often in ways that seem logical and consistent with the available theory and empirical evidence. Unfortunately, limited prior research, and the lack of theory specifically addressing cross-cultural personality and career success relationships preclude all but speculative conclusions. Nonetheless, the striking differences between the two groups provide support for the value of such comparisons and, we hope, initial empirical results from which to build such theories.

Are Personality Effects Mediated by Human Capital and Motivation?

Tables 3 and 4 revealed far more significant direct than indirect effects, but still a number of interesting indirect effects emerged. Generally, the indirect effects were more prevalent for extrinsic success dimensions than intrinsic. This is logical, given that extrinsic success elements are more objective, and thus can be more easily tied to the objective motivation and human capital variables through remuneration and promotion patterns.

The effects of motivation and human capital variables on career success outcomes (the arrow connecting the two right-hand boxes in Figure 1) replicated prior research (Tables 5 and

6), so there appeared to be ample potential for personality to associate indirectly with career success through these variables. The two samples were similar, with links between motivation and human capital variables most prevalent for remuneration, ascendancy, and CEO proximity. Employability ratings and intrinsic satisfaction measures significantly related to some, but fewer motivational and human capital variables. This pattern is not surprising, considering that remuneration, ascendancy, and CEO proximity are more objective elements of success, and thus could be expected to relate more closely to the objective motivation and human capital variables.

The pattern for international experience is notable in that that it had a positive association with ascendancy and CEO proximity among both Europeans and Americans, but it associated positively with remuneration only for the Americans (bottom rows of Tables 5 and 6). This might reflect that American firms must pay more for executives capable and willing to take international assignments. This is supported in Tables 1 and 2, which show that international experience was less prevalent among American managers (36%) than European managers (63%).

Table 7 depicted the paths corresponding to the left-hand arrow in Figure 1. Generally, the motivation variables of desired and actual time-worked, and having a graduate degree were most often related to personality dimensions in both samples. Work centrality associated with more personality dimensions among Americans than Europeans. International experience presented an interesting contrast, in that it was significantly more likely for American managers that had higher openness and lower agreeableness, while among Europeans it was more likely only for more extroverted managers. This supports prior suggestions that openness associates with taking and succeeding in international assignments, but only for the Americans.

Putting the two indirect arrows of Figure 1 together, agreeableness presented the most consistent indirect effects, negatively associated with remuneration and CEO proximity in both samples, and with ascendancy in the U.S. sample. In both samples, this reflected a negative association with actual and desired time worked and a positive association with having a graduate degree. Agreeableness was also associated with dissatisfaction among these executives, so it may be that more agreeable executives desire to spend less time working, and this is reflected in their extrinsic success. This result is particularly consistent with earlier findings regarding Type A personality, which has frequently associated with longer working hours (Dearborn & Hastings, 1987; Tang, 1986) and lower agreeableness.

Extroversion revealed several positive indirect effects with extrinsic success. A common path for both samples was the positive effect of extroversion on desired and actual time worked. This supports earlier propositions (e.g., Tharenou, 1997) that individuals may seek out situations consistent with their personality traits, in that extroverted managers seem to seek out work situations, perhaps because they offer the greatest opportunity to engage in extrovert-like behaviors. Similar to agreeableness, the direct positive relationship between extroversion and intrinsic success may also play a role in the indirect effects, in that extroverted managers find work more satisfying and are more likely to spend time at work.

The positive indirect effect of openness on remuneration for the U.S. sample reflected a path through greater international experience, which was also consistent with prior research (Montagliani & Gialcone, 1997; Spreitzer, et al. 1997). Interestingly, the negative indirect association between openness and ascendancy in the U.S. sample was also consistent with prior research linking openness to greater academic achievement. In this case, more open individuals were more likely to have a graduate degree which, in this sample, was negatively associated with ascendancy.

In sum, the career success model of Figure 1 provided unique insights into the underlying structure of the relationship between personality and career success, by explicitly incorporating the indirect effects through human capital and motivation. These insights were frequently valuable in distinguishing differences between the European and U.S. samples. This argues strongly that future personality research should consider potential indirect effects, especially on desired and actual time worked, and international experience. Moreover, the present career success model suggests that future research on the effects of motivation and human capital on career success would benefit from incorporating dispositions. Investigating the indirect effects proved quite valuable as a vehicle for integrating multidisciplinary research in psychology, economics, and international human resource management. We now turn to a discussion of the key findings from the direct effects.

Conscientiousness Relates Differently with Career Success Than Performance

Conscientiousness has been shown to consistently and positively relate to job performance (Barrick & Mount, 1991; Salgado, 1997; Tett et al., 1991). Our findings for career success revealed a different pattern. Conscientiousness had non-significant associations with most extrinsic success elements, and the only significant effect was negative (CEO proximity for Europeans). It may be that high-level executives are a unique sample, and not well represented in previous research. Still, performance ratings are not strongly correlated with extrinsic or

intrinsic career success in prior research. Perhaps one facet of conscientiousness (achievement) is positively related to extrinsic career success while the other facet (dependability) is negatively or not related, producing an overall non-significant effect. We checked this by analyzing the two types of items separately, and found that career success did not correlate more highly with the achievement items than the dependability items in either sample. While distinct measures of each facet will shed further light on this issue, our findings did not appear to be an anomaly of the conscientiousness measure. Rather, conscientiousness appeared to make little positive or negative difference in extrinsic executive success.

Even more striking evidence that conscientiousness associates differently with career success than performance is provided by the finding that conscientiousness consistently and negatively related to all intrinsic career success measures in the U.S. sample, and to job satisfaction among Europeans. Because conscientiousness does not negatively affect extrinsic success, it does not appear to be a simple reaction to lower career rewards. Rather, it suggests that aspects of executive work may directly create discomfort, negative stress, or unease among more conscientious individuals. Perhaps it is more difficult to be dependable, organized, and goal directed as an executive, due to conflicting demands, constant change, and shifting priorities. The fact that European managers exhibited this negative effect only for job satisfaction may reflect less generalizing from their job to their career or life.

In sum, our findings for conscientiousness suggest caution in generalizing personality results from performance research to career success. Moreover, they highlight the value of differentiating intrinsic and extrinsic career success, and cross-cultural comparisons. They suggest that future research might focus on identifying sources of dissatisfaction among executives beyond extrinsic rewards, and whether these sources vary with conscientiousness.

Agreeableness is Not Necessarily a Good Thing for Career Success

One might at first consider agreeableness to be a valuable trait at work but, as noted earlier, there was very little prior empirical evidence, especially with regard to agreeableness and career success. Our results consistently suggest that agreeableness is among the most consistently negative influences on extrinsic success in both samples, and also on intrinsic career success in the U.S. sample. This is consistent with earlier results regarding affability and ascendancy (Howard & Bray, 1988). It is also consistent with prior observations that agreeableness associates with being more trusting, submissive, and compliant, which may be seen among executives as naïve, docile, and likely to follow rather than lead. Among these executives, the price of being agreeable appeared to be paid in the coin of being less

extrinsically successful. This appears to occur not only directly, but indirectly, as noted earlier, particularly through lower motivation (less desired and actual work time).

The value of comparing the U.S. and Europe was again demonstrated here. The negative direct extrinsic effect corresponded to the effect with intrinsic success for the U.S. sample, but not for the Europeans. If European management systems, compared to the U.S., emphasize a desire to reduce ambiguity, build consensus, and limit managerial autonomy (e.g., Hammer, 1999), then more agreeable managers may find the European executive environment a better fit, and less consistently frustrating, stressful, or unpleasant.

Results for Neuroticism and Extroversion Reinforce Prior Research

Unlike results for conscientiousness and agreeableness, the results for neuroticism and extroversion were more consistent with prior research and theory, and supported the hypotheses regarding direct effects. For both samples, neuroticism negatively associated with intrinsic success, extroversion positively associated with intrinsic success, and only the direct effects were significant. This is consistent with prior research showing that neuroticism appears to associate with negative reactions to life and work situations particularly when they are demanding or stressful, and addresses the absence of prior research relating neuroticism and career satisfaction. The extroversion results replicated prior findings for job satisfaction (e.g., Furnam & Zacherl, 1986; Headey & Wearing, 1989; McCrae & Costa, 1991), supporting the notion that extroversion reflects a general tendency to experience positive emotions. They also support the proposition that extroverted personality traits may be more favorably received in managerial or executive roles or more compatible with the executive environment (e.g., Aryee, Chay, & Tan, 1994; Bretz & Judge, 1994). The absence of indirect effects suggests these direct effects may be more influential than personality-driven differences in human capital and motivation variables.

There were also intriguing differences between Europe and the U.S. Neuroticism negatively associated with extrinsic career success for the Americans but not for the Europeans, while extroversion positively associated with extrinsic success for the European sample but not for the Americans. These findings suggest that certain traits are either more effective or perceived as important in the respective cultures. Magnus, Diener, Fujita, and Pavot (1993) have found that individuals who score high on neuroticism and extroversion experience more actual negative and positive life events, respectively, suggesting that individuals choose situations that reinforce their dispositional tendencies. American executives higher in neuroticism may be less successful because they place themselves in situations where failure,

anxiety, and disappointment are likely outcomes, and vice versa for extroverted Europeans. American companies may also reward positive self-image (low neuroticism), while sociability and energy (high extroversion) are rewarded by European companies. This is consistent with the idea that the U.S. is lower on uncertainty avoidance, perhaps making self confidence more important in an environment of ambiguity and more deviant ideas. It is also consistent with the higher "collectivistic" and more collaborative and multi-constituent management environment in Europe, which may make sociability and energy key success factors.

While we cannot fully account for these differences, they reinforce the importance of exploring cross-cultural generalizability. Future research should attempt to replicate these results and, if the findings are replicated, explain why differences between the American and European results exist.

Limitations

With regard to our measures, the employability ratings were taken from an existing search firm system; we cannot definitively identify its underlying construct. Contrary to our other measures, the reliability of agreeableness was low among the Europeans, though this did not preclude finding both direct and indirect effects with the extrinsic success variables.

Common method variance is always a concern when variables are measured in a single survey, but many of the linkages in our model reflected variables that were measured with archival data (e.g., remuneration and employability rating for the American sample). Our results were consistent regardless of whether variables were measured with the same source. Crampton and Wagner (1994) found measures of career advancement to be relatively free from effect size inflation due to common method variance.

Our samples were large, but reflected a relatively low response rate. Respondents and nonrespondents were not different with respect to archival career success measures, but this does not preclude personality differences. A significant difference was observed between respondents and nonrespondents with respect to marital status, which does relate to personality (Buss, 1996). This might cause the sample means of some personality characteristics to differ from the larger population, but it seems unlikely to inflate the correlations. The fact that we sampled a large number of executives employed across many organizations and industries bolsters the generalizability of the results. It is possible that our findings may not generalize to non-managerial samples, so further research to replicate the findings in other samples is advisable.

Obviously, career success is a process that unfolds over time, and our study was cross-sectional. We did not set out to investigate how personality effects may depend on career stage and the time interval studied. Such temporal effects may well offer valuable enhancements to our present results. One potential limitation of cross-sectional designs – that the independent and dependent variables are reciprocally related – seems less of a problem. The Big Five personality traits have strong genetic origins and are quite stable over time (Costa & McCrae, 1988; Digman, 1989; McCrae & John, 1992). Thus, it seems reasonable to suggest that the relationship runs from personality to career success, not vice versa.

Finally, our comparison between Europe and the U.S. revealed interesting differences, but "static group comparisons" allow limited control over unobserved factors that correlate with national differences (Dowling, Welch, & Schuler, 1999; Malpass, 1977). Consistent with prior recommendations (Malpass, 1997), we included the array of motivation and human capital variables, which seemed to capture several underlying differences between European and American managers. The consistency of our findings across multiple success measures, and the fidelity of the indirect effects with existing theory and research is encouraging. Our findings vividly demonstrate the value of future research incorporating direct measures of labor markets, cultures, social values, and traditions.

Practical Significance of Personality Effects on Executive Remuneration

The array of indirect and direct effects discussed here, and the nature of standardized path coefficients, can obscure the practical significance of these relationships. As Boudreau and colleagues have noted (Boudreau, 1984; 1991; Boudreau & Ramstad, 1999), it is valuable and important to translate statistical findings into meaningful units for management decision making. Multiplying the sample standard deviation of salary, by the unstandardized (raw) coefficients from regressing remuneration on the Big Five traits, produces a dollar-valued impact index. These results appear to be practically significant. In the American sample, an executive who scored one standard deviation above the mean on neuroticism and agreeableness had a predicted yearly earnings deficit of $36,011. For the Europeans, this corresponding figure was $10,044. Extroversion was associated with the largest effect size for the Europeans, where an executive who scored one standard deviation above the mean on extroversion had an earnings advantage of $11,540.

Future research should investigate other possible mediating influences, such as executive influence behaviors, career management strategies, self- (or task-) efficacy, and so forth. Executive search behaviors and mobility patterns, and their relationships to personality,

may also illuminate the effective of different individual career management strategies, and organizational career development programs. Longitudinal analysis of personality, as it affects mobility patterns, attitudes and career outcomes also appears fruitful, in light of the significant cross-sectional results reported here.

References

Arvey, R.D., Bhagat, R.S. & Salas, E. (1991). Cross-cultural and cross-national issues in personnel and human resources management. In G.R. Ferris & K.M. Rowland (Eds.). Research in personnel and human resources management, 9, 76-98. Greenwich, CT: JAI Press.

Aryee, S., Chay, Y. W., & Tan, H. H. (1994). An examination of the antecedents of subjective career success among a managerial sample in Singapore. Human Relations, 47, 487-509.

Baker, M. (1997). Growth-rate heterogeneity and the covariance structure of life-cycle earnings. Journal of Labor Economics, 15, 338-375.

Barrett, A. (1999). How to Keep Rising Stars from Straying. Business Week, June 7, 1999, Iss. 3632, 80.

Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. Personnel Psychology, 44, 1-26.

Barrick, M. R., Mount, M. K., & Strauss, J. P. (1993). Conscientiousness and performance of sales representatives: Test of the mediating effects of goal setting. Journal of Applied Psychology, 78, 715-722.

Bentler, P. M. (1985). Theory and implementation of EQS: A structural equations program. Los Angeles: BMDP Statistical Software.

Bhagat, R.S. & McQuaid, S.J. (1982). Role of subjective culture in organizations: A review and directions for future research. Journal of Applied Psychology [Monograph], 67, 653-685.

Blumfield, M. (1997). The new job mobility. Training, 34, 12-13.

Boudreau, J. W. (1984). Decision theory contributions to HRM research and practice. Industrial Relations, 23, 198-217.

Boudreau, J. W. (1991). Utility analysis for decisions in human resource management. In M. D. Dunnette & L. M. Hough (Eds.) Handbook of Industrial and Organizational Psychology, (2nd ed.), Vol. 2. Palo Alto: Consulting Psychologists Press, pp. 621-745.

Boudreau, J.W. & Ramstad, P.R. (1999). Human resource metrics: Can measures be strategic? In P. Wright, L. Dyer, J. Boudreau & G. Milkovich (eds.) Strategic human resources management in the twenty-first century. Supplement 4 to G.R. Ferris (ed.) Research in personnel and human resource management, 75-98. Stamford, CT: JAI Press.

Bray, D. W., & Howard, A. (1980). Career success and life satisfactions of middle-aged managers. In L. A. Bond, & J. C. Rosen (Eds.), Competence and coping during adulthood (pp. 258-287). Hanover, NH: University Press of New England.

Bretz, R. D., & Judge, T. A. (1994). Person organization fit and the Theory of Work Adjustment: Implications for satisfaction, tenure, and career success. Journal of Vocational Behavior, 44, 32-54.

Brewster, C. & Larsen, H. H. (1992). Human resource management in Europe: Evidence from ten countries. International Journal of Human Resource Management, 3, 409-434.

Brewster, C. (1994). European HRM: Reflection of, or challenge to, the American concept? In P. S. Kirkbride (Ed.), Human resource management in Europe (pp. 56-89). London: Routledge.

Brophy, A. L. (1995). Educational level, occupation, and the MMPI-2 F-K index. Psychological Reports, 77, 175-178.

Brown, S. P. (1996). A meta-analysis and review of organizational research on job involvement. Psychological Bulletin, 120, 235-255.

Buss, D. M. (1996). Social adaptation and five major factors of personality. In J. S. Wiggins (Ed.), The five-factor model of personality (pp. 180-207). New York: Guilford Press.

Cashman, K., & Feldman, J. (1995). Reengineering the employment contract. Executive Excellence, 12, 15-16.

Caspi, A., Elder, G. H., Jr., & Bem, D. J. (1988). Moving away from the world: Life-course patterns of shy children. Developmental Psychology, 24, 824-831.

Close, M. J., & Bergmann, T. J. (1979). Dogmatism and attained educational level: A field study. Psychological Reports, 44, 671-673.

Contrada, R.J., Leventhal, H., & O'Leary, A. (1990). Personality and health. In L. A. Pervin, Handbook of personality theory and research, 638-692. New York: The Guilford Press.

Costa, P. T., Jr., & McCrae, R. R. (1988). Personality in adulthood: A six-year longitudinal study of self-reports and spouse ratings on the NEO Personality Inventory. Journal of Personality and Social Psychology, 54, 853-863.

Costa, P. T., Jr., & McCrae, R. R. (1992). Four ways five factors are basic. Personality and Individual Differences, 13, 653-665.

Costa, P. T., Jr., & McCrae, R. R. (1992). Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor (NEO-FFI) Inventory professional manual. Odessa, FL: PAR.

Crampton, S. M., & Wagner, J. A. III. (1994). Percept-percept inflation in microorganizational research: An investigation of prevalence and effect. Journal of Applied Psychology, 79, 67-76.

Dearborn, M. J., & Hastings, J. E. (1987). Type A personality as a mediator of stress and strain in employed women. Journal of Human Stress, 13, 53-60.

DiCieri, H. & Dowling, P.J. (1999). Strategic human resource management in multinational enterprises: Theoretical and empirical developments. In P. Wright, L. Dyer, J. Boudreau & G. Milkovich (eds.) Strategic human resources management in the twenty-first century. Supplement 4 to G.R. Ferris (ed.) Research in personnel and human resource management, 305-328. Stamford, CT: JAI Press.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. Journal of Personality Assessment, 49, 71-75.

Digman, J. M. (1989). Five robust trait dimensions: Development, stability, and utility. Journal of Personality, 57, 195-214.

Dowling, P.J, Welch, D.E. & Schuler, R.S. (1999). International human resource management (3rd ed). Cincinnati, OH: South-Western.

Dreher, G. F., & Bretz, R. D. (1991). Cognitive ability and career attainment: The moderating effects of early career success. Journal of Applied Psychology, 76, 392-397.

Ettorre, B. (1996). Empty promises. Management Review, 85, 16-23.

Ferris, G.R., Hochwarter, W.A., Buckley, R.M., Harrell-Cook, G., & Frink, D. (1999). Human resources management: Some new directions. Journal of Management, 25, 385-415.

Furnam, A., & Zacherl, M. (1986). Personality and job satisfaction. Personality and Individual Differences, 7, 453-459.

Gattiker, U. E., & Larwood, L. (1988). Predictors for managers' career mobility, success, and satisfaction. Human Relations, 41, 569-591.

Gaugler, E. & Wiltz, S. (1992). Germany. In C. Brewster, A. Hegewisch, L. Holden, & T. Lockhart (Eds.), European Guide to Human Resource Management. London: Academic Press.

Gerhart, B. A., & Milkovich, G. T. (1992). Employee compensation: Research and practice. In M. D. Dunnette & L. M. Hough (Eds.), Handbook of industrial and organizational psychology (pp. 481-569). Palo Alto, CA: Consulting Psychologists Press.

Ghiselli, E. E. (1963). The validity of management traits in relation to occupational level. Personnel Psychology, 16, 109-113.

Ghiselli, E. E. (1968). Interaction of traits and motivational factors in the determination of the success of managers. Journal of Applied Psychology, 52, 480-483.

Ghiselli, E. E. (1969). Prediction of success of stockbrokers. Personnel Psychology, 22, 125-130.

Goldberg, L. R. (1990). An alternative “description of personality”: The Big-Five factor structure. Journal of Personality and Social Psychology, 59, 1216-1229.

Gourman, J. (1993). The Gourman Report. Los Angeles: National Education Standards.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. Academy of Management Review, 10, 76-88.

Greenhaus, J. H., Parasuraman, S., & Wormley, W. M. (1990). Effects of race on organizational experiences, job performance evaluations, and career outcomes. Academy of Management Journal, 33, 64-86.

Hammer, T.H. (1999). Developing global leaders, a European perspective. Advances in Global Leadership, 1, 99-113. Greenwich, CT: JAI Press.

Hansson, R. O., Hogan, R., Johnson, J. A., & Schroeder, D. (1983). Disentangling Type A behavior: The roles of ambition, insensitivity, and anxiety. Journal of Research in Personality, 17, 186-197.

Harrell, T. W. (1969). The personality of high earning MBA's in big business. Personnel Psychology, 22, 457-463.

Harrell, T. W., & Alpert, B. (1989). Attributes of successful MBAs: A 20-year longitudinal study. Human Performance, 2, 301-322.

Headey, B., & Wearing, A. (1989). Personality, life events, and subjective well-being: Toward a dynamic equilibrium model. Journal of Personality and Social Psychology, 57, 731-739.

Hofstede, G. (1991). Cultures and organizations. London: McGraw-Hill.

Hogan, J., & Ones, D. S. (1997). Conscientiousness and integrity at work. In R. Hogan, J. Johnson, & S. Briggs (Eds.), Handbook of personality psychology (pp. 849-870). San Diego: Academic Press.

Hough, L. M. (1997). Personality at work: Issues and evidence. In M. Hakel (Ed.), Beyond multiple choice. Hillsdale, NJ: Erlbaum.

Hough, L. M. (1998). The millennium for personality psychology: New horizons or good old daze? Applied Psychology: An International Review, 47, 233-261.

House, R. J., Shane, S. A., & Herold, D. M. (1996). Rumors of the death of dispositional research are vastly exaggerated. Academy of Management Review, 21, 203-224.

Howard, A., & Bray, D. W. (1988). Managerial lives in transition: Advancing age and changing times. Adult development and aging. New York: Guilford Press.

Jaskolka, G., Beyer, J. M., & Trice, H. M. (1985). Measuring and predicting managerial success. Journal of Vocational Behavior, 26, 189-205.

Judge, T. A., & Bretz, R. D. (1994). Political influence behavior and career success. Journal of Management, 20, 43-65.

Judge, T. A., Cable, D. M., Boudreau, J. W., & Bretz, R. D. (1995). An empirical investigation of the predictors of executive career success. Personnel Psychology, 48, 485-519.

Kerr, J. L., & Kren, L. (1992). Effect of relative decision monitoring on chief executive compensation. Academy of Management Journal, 35, 370-397.

Kilduff, M., & Day, D. (1994). Do chameleons get ahead? The effects of self-monitoring on managerial careers. Academy of Management Journal, 37, 1047-1060.

Kissler, G. D. (1994). The new employment contract. Human Resource Management, 33, 335-352.

Larsen, H. H. (1996). In search of management development in Europe: From self-fulfilling prophecies to organizational competence. International Journal of Human Resource Management, 7, 657-676.

Malpass, R.S. (1977). Theory and method in cross-cultural psychology, American Psychologist, 32, 1069-1079.

Magnus, K., Diener, E., Fujita, F., & Pavot, W. (1993). Extroversion and neuroticism as predictors of objective life events: A longitudinal analysis. Journal of Personality and Social Psychology, 65, 1046-1053.

Mayer, F. S. & Sutton, K. (1996). Personality: An integrative approach. Upper Saddle River, NJ: Prentice Hall.

McClelland, D. C., & Boyatzis, R. E. (1982). Leadership motive pattern and long-term success in management. Journal of Applied Psychology, 67, 737-743.

McCrae, R. R., & Costa, P. T., Jr. (1991). Adding liebe und arbeit: The full five-factor model and well-being. Personality and Social Psychology Bulletin, 17, 227-232.

McCrae, R. R., & Costa, P. T., Jr. (1997). Personality trait structure as a human universal. American Psychologist, 52, 509-516.

McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. Journal of Personality, 2, 175-215.

Medsker, G.J., Williams, L.J., & Holahan, P.J. (1994). A review of current practices for evaluating causal models in organizational behavior and human resources management research. Journal of Management, 20, 439-464.

Montagliani, A. & Giacalone, R.A. (1998). Impression management and cross-cultural adaptation. The Journal of Social Psychology, 138, 598-608.

Mount, M. K., & Barrick, M. R. (1995). The Big Five personality dimensions: Implications for research and practice in human resources management. Research in Personnel and Human Resources Management, 13, 153-200.

MOW International Research Team. (1987). The meaning of working. London: Academic Press.

Ricks, D., Toyne, B., & Martinez, Z. (1990). Recent developments in international management research. Journal of Management, 16, 219-253.

Ruth, L. C., Bruner, J. E., & Chamernik, A. L. (1995). Benefits strategy: The new deal. Compensation and Benefits Management, 11, 7-16.

Salgado, J. F. (1997). The five factor model of personality and job performance in the European Community. Journal of Applied Psychology, 82, 30-43.

Schuler, R.S. & Florkowski, G.W. (1996). International human resources management. In B. Punnett & O. Shenkar (eds.). Handbook for international management research. 351-390. Cambridge, MA: Blackwell.

Seibert, S. E., & Kraimer, M. L. (1999). The five-factor model of personality and its relationship with career success. Paper presented at the 1999 Academy of Management Meeting, Chicago, IL.

Siegel, J. P., & Ghiselli, E. E. (1971). Managerial talent, pay, and age. Journal of Vocational Behavior, 1, 129-135.

Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. Journal of Applied Psychology, 68, 653-663.

Sullivan, S.E. (1999). The changing nature of careers: A review and research agenda. Journal of Management, 25, 457-484.

Tang, T. L. P. (1986). Effects of Type A personality and task labels (work vs. leisure) on task preference. Journal of Leisure Research, 18, 1-11.

Tett, R. P., Jackson, D. N., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. Personnel Psychology, 44, 703-742.

Tharenou, P. (1997). Managerial career advancement. International Review of Industrial and Organizational Psychology, 12, 39-93.

Thompson, C. A., Beauvais, L. L., & Lyness, K. S. (1999). When work-family benefits are not enough: The influence of work-family culture on benefit utilization, organizational attachment, and work-family conflict. Journal of Vocational Behavior, 54, 392-415.

Ulman, L., Eichengreen, B., & Dickens, W. T. (Eds.) (1993). Labor and an integrated Europe. The Brookings Institution: Washington, D.C.

Watson, D., & Clark, L. A. (1997). Extroversion and its positive emotional core. In R. Hogan, J. A. Johnson, and S. R. Briggs (Eds.), Handbook of personality psychology (pp. 767-793). San Diego: Academic Press.