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DEMOGRAPHIC AND INDIVIDUAL CORRELATES OF SELF-RATED COMPETENCY

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ABSTRACT

This study was designed to explore sex, age, and personality differences in the way working people rated their own work competencies. A total of 723 working adults (mainly from Europe and the Middle East) completed a questionnaire which measured respondents self-assessed work competencies, self-rated intelligence, creativity, humor and ability to learn, core self-evaluations, and Big Five personality traits. Males rated themselves significantly higher than females on four competencies (*Leading and Deciding*; *Analyzing and Interpreting, Creating and Conceptualizing*; and *Enterprising and Performing*). Factor analysis revealed one overall factor. Regressing the total competency rating onto demography (age and sex), core self-evaluations, and the Big Five showed a clear interpretable pattern. Older, stable, open, conscientious, extraverts tended to rate themselves highest on overall competency. Extraverted males rated their creativity and sense of humor highest. Core self-evaluations added little incremental validity over the Big Five. Personal ratings of competence are a function of sex and personality which may systematically relate to actual competency behaviors.

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That is individual differences predict both self-ratings and actual behavior which are related. Using personal ratings of work behavior in appraisal procedures may be contaminated by humility and hubris effects associated with sex and personality. The first to explore self-ratings of the "Great Eight" competencies and to examine how individual differences influence self-perceptions of leadership competencies.

INTRODUCTION

Henry Ford, the car magnate and industrialist, is attributed with the quote: "Whether you believe you can or can't do a thing, you are right." The idea was that self-beliefs have self-fulfilling prophesy consequences and are therefore important, particularly at work (Judge, 2009) This study looks at self-ratings of competencies at work, with special references to sex, age, and personality determinants of those beliefs.

While differential psychologists have attempted to describe and measure traits and abilities for over 20 years, human resource professionals have preferred to use the term competency. Originally attributed to McClelland (1973), the concept was popularized by Boyatzis (1982). This article looks at sex and personality differences in self-rated competencies based on the "Great Eight" competences identified by Bartram (2005). It is the first to look at self-ratings of the great eight competencies and to extend the literature on sex difference in self-rated abilities to this area (Kaufman, 2006; Paulus, Lysy & Yik, 1998; Petrides & Furnham, 2000).

There is a large body of literature which suggests that self-ratings are inflated; however, more recent work suggests self-ratings have predictive validity at work. Judge, Bono, Erez, and Locke (2005) defined core self-evaluations as fundamental assessments that individuals make about their worth, competence, and capacity, and various studies have shown that these are linked to actual work performance (Erez & Judge, 2001). Further studies have shown that individuals feel stress when placed in situations where they run the risk of confirming a negative stereotype (stereotypic threat) and that this stress leads to poor performance (Kaufman, 2006). This study will also examine the relationship between core self-evaluations and self-ratings of the Great Eight Competencies.

Self-Perceived Intelligence

The literature in this area has been dominated by an interest in self-rated general and multiple intelligence. Over the last 15 years, there have been numerous studies on the self-estimation of intelligence (Butler, 2000; Chamorro-Premuzic & Furnham, 2004; Furnham, 2000, 2001; Paulus et al., 1998). The literature has examined sex differences in ratings of overall IQ, nearly all of which have shown a sex difference of between 4 to 9 IQ points. Males rate their own IQ higher than do females and students higher than working adults. Further studies

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looking at personality correlates of self-estimated intelligence show that Neuroticism is negatively and Extraversion, Openness, and Conscientiousness are positively correlated with self-ratings.

As well as rating overall intelligence, a number of studies have looked at estimates of specific types of intelligence like emotional intelligence (Petrides & Furnham, 2000), "successful" intelligence (Sternberg, 1997) and "multiple intelligence" as defined by Gardner (1999). A more recent study has examined sex differences on 14 job performance tasks (Furnham, von Stumm, Makendrayogan, & Chamorro-Premuzic, 2009). Riggio, Murphy, and Pirozzolo (2002) believe that the multiple intelligence idea is intuitively appealing because it is self-evident that people require various areas of competence, other than only academic intelligence, to succeed at business leadership.

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Furnham's (2005) study looks at multiple "business" intelligences, a term used by Harvey, Novicevic, and Kiessling (2002) who listed eight "managerial intelligences." They took as their starting point Sternberg's (1985) triarchic theory of intelligence but split the three intelligences further. Thus, *Analytic* intelligence is split into cognitive and emotional intelligence; *Practical* intelligence into political, socio-cultural, organizational, and network intelligence; and *Creative* intelligence into innovative and intuitive intelligence. Furnham (2005) found that males rated their overall IQ as well as their cognitive, creative, and political intelligence significantly higher than females. Females rated their boss's overall, emotional, and organizational IQ significantly higher than did male participants. Participants believed they had higher emotional, but lower political, organizational, and network intelligence than their boss. Regressions indicated that only one of the eight estimated business intelligences (cognitive intelligence) was related to overall (total, general) estimated intelligence in self, boss, or boss's boss. Regressing the Big Five personality factors onto each of the self-estimates showed Openness to Experience was positively and Agreeableness was negatively related to most of the estimates. Those who had taken an intelligence test tended to give higher self-estimates on overall intelligence. This study will examine demographic personality and core self-evaluation predictors of self-rated competency.

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Competency

For nearly two decades the English-speaking management world has been concerned with defining, delineating, and selecting for management competencies (Berman, 1997; Burn & Dearlove, 1995; Drakely & White, 1999; Dulewicz, 1989, 1992; Ewers, 1989). The popularity of the concept of competency is usually attributed to Richard Boyatzis' book *The Competent Manager* published in 1982, but it was McClelland (1973) who used the term 10 years earlier. The concept of competency seemed to offer a fresh start by getting away from the muddle of traits vs. motives. It also seemed to offer a neutral term that looked at work-related performance. Bartram (2005) noted: "Competency frameworks,

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when defined in terms of observable workplace behaviors, provide the basis for a differentiated criterion measurement. They support investigation of different aspects of performance, promoting a more sophisticated understanding of the factors underlying overall job performance" (pp. 1185-1186).

Despite the popularity of the idea, there are various real problems in defining it, or indeed distinguishing it from other concepts (Furnham, 2008). Most organizations have competency frameworks used in selection, assessment, and appraisal and all specify multiple (often between six and eight) competencies that are desirable/required to do the job. They nearly always involve cognitive ability and other skills (Dulewicz & Herbert, 1999; Woodruffe, 1998). Numerous studies have also investigated other predictors of self-rated ability including personality, culture and intelligence (Furnham, 2008).

Furnham and Mansi (2006), in a two-study report, investigated self-rated competency. In the first study, 197 working adults (125 female, 72 male) rated themselves on the nine competencies listed by Boyaztis (1982). There were overall few significant sex differences. The nine competencies factored into two coherent factors. There were various individual difference predictors of the total competency rating and the two-factor score. Older participants with higher Openness to Experience gave higher overall self-estimates. In the second study, 173 adults (108 female, 65 male) rated themselves on the 12 independent "super-competencies" specified by Dulewicz (1999). Again there were few significant sex differences. Factor analysis revealed two recognizable factors. Extraverts tended to give higher self-estimates than introverts.

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One of the difficulties of working with the self-rating of competencies was the proliferation of different models and lack of agreement regarding a universal practical typology. However, Bartram (2005, 2009) reported data from 29 validating studies with an $N = 4861$ that reveal a parsimonious list of eight competencies which will be used in this study. He found that males scored higher on Leading/deciding and Enterprising/performing while females scored higher on Supporting/cooperating and Organizing/executing. He also found, as predicted, personality trait correlates of these: Extraversion and Interacting/presenting ($r = .89$); Openness and Creating/conceptualizing ($r = .61$); Conscientiousness and Organizing/executing ($r = .96$); Agreeableness and Supporting/co-operating ($r = .90$); and Neuroticism and Adapting/coping ($r = –.86$).

The "great eight" were chosen in this study because they are an empirically established and comprehensive model of work competencies. Bartram's work is based on the Inventory of Management Competencies which is a 160-item measure completed by supervisors or peers on "target workers." This study is based on self-reported overall estimates (eight in all) and aims to replicate the above sex differences and personality correlates of the Great Eight.

In addition to the Big Five personality traits which are frequently used, core self-evaluations (CORE) were added. This measure, devised and validated by Judge, Eerz, Bono, and Thorensen (2003), has proved to be a simple and succinct

predictor of job satisfaction and job performance. Core self-evaluations are comprised of four traits: Self-Esteem, generalized Self-Efficacy, Neuroticism, and Locus of Control. It is correlated with emotional instability. It is often conceived as a trait measure. It can be seen as a measure of self-confidence.

This study will test various hypotheses:

H1: Males will give significantly higher self-estimates on the more cognitive, analytic, and performance competencies, namely: leading and deciding, analyzing and interpreting, creating and conceptualizing, enterprising and performing. This is based on Bartram (2009) and all the research showing sex differences (male hubris, female humility) in many self-rated abilities (Furnham, 2001, 2005, 2008).

H2: There will be personality correlates of the self-rated competencies, following Bartram (2005), such that: (a) Extraversion will correlate positively with Leading/deciding and Interacting/presenting; (b) Neuroticism will be negatively correlated with Adapting/coping; (c) Openness will be positively correlated with Analyzing/interpreting and Creating/conceptualizing; (d) Agreeableness will be positively correlated with Supporting/co-operating and negatively with Enterprising/performing; and (e) Conscientiousness will be positively correlated with Organizing/executing.

H3: Those scoring higher on Core Self-Evaluations will give themselves higher competency ratings on all competencies because high scores are associated with overall self-confidence.

H4: The more cognitive the self-rated competency (i.e. *Analyzing and Interpreting*; *Creating and Conceptualizing*) the more strongly it will be related to self-rated general intelligence (Bartram, 2005).

METHOD

Participants

A total of 723 working adults (mainly from Europe and the Middle East). There were 332 from Great Britain, 103 Arabs, 25 African, and 185 from the Scandinavian countries They ranged in age from 27 to 64 with a mean of 36.11 years (SD = 10.70). They were all on post-graduate management courses. Most came from the private sector, being involved in banking, education, and engineering. In all, 63.1% had English as a mother tongue, but all were fluent in English. As regards education, 22.6% had up to secondary schooling, 6.5% further education, 43.2% a degree, and the remainder post-graduate education.

Measures

Core Self-Evaluations Scale (CSES; Judge et al., 2003)

The CSES is a 12-item questionnaire that has been developed to operationalize the construct of core self-evaluations (CORE). The questionnaire was designed to measure the underlying concept itself rather than the particular indicators of the concept. Despite the salience of the traits that compose this construct (self-esteem, generalized self-efficacy, locus of control, and neuroticism), it has been relatively uncommon for researchers to study these traits together. This study has been shown to have construct and predictive validity in a number of studies (**Judge, 2008**; Judge, Heller, & Klinger, 2008). Example items include, "I complete tasks successfully," "Overall I am satisfied with myself," and "Sometimes I feel depressed." The alpha coefficient for CSES total score for this particular study was $\alpha = .78$.

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Abbreviated Big Five (McManus, Smithers, Partridge, Keeling, & Fleming, 2003)

This is a 15-item questionnaire that measures five traits: Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. At least eight published studies have used this measure (Furnham & McManus, 2004; McManus & Furnham, 2006). The measure has good evidence of both reliability and validity.

Need ref for McManus & furnham 2006

Self-Rated Competencies (Bartram, 2005)

This involved participants rating on an IQ based normal distribution their competencies at work. Participants were shown a normal distribution which was described and then participants made their own ratings for each competency (see Furnham, 2001). The competencies are shown in Table 1.

Self-Rated Traits

Using the same format as in all the studies on self-rated intelligence, participants were also required to make four further ratings based on the normal distribution: overall intelligence, creativity, sense of humor and ability to learn.

Procedure

Participants in this study were contacted by four methods. Around a quarter were contacted by the authors by e-mail. Another quarter were approached while waiting at busy railway stations. A quarter were tested while on management courses and a quarter were tested at work. The criteria was that they were all in full-time employment.

RESULTS

Group Differences

Various explorations were made mainly by analysis of variance on whether there were systematic cultural differences either on the ratings or the demographic or the personality variables. Overall, there were fewer significant cross-cultural differences on these factors than may be expected by chance with the exception of age. Thus, no further analysis was done on cultural differences.

Sex Differences

Table 1 shows the results for the ANOVA comparisons between men and women.

First, a sex difference MANOVA was run which was significant (see Table 1). It is noticeable that these participants tended to see themselves around two-thirds to one standard deviation above the norm on all of the eight competencies. This is a well established "Lake Wobegon" effect where on nearly all self-ratings people place themselves well over the mean. Three-quarters showed significant differences, with males giving themselves higher scores on four and females on two. Males rated themselves at least one standard deviation above the norm on five, with *Leading and Deciding* having the highest score. This confirms H_1. Females only rated themselves one standard deviation above the norm on two (*Supporting and co-operating*; *Organizing and executing*), both on which they gave significantly higher scores than males. The Cohen's *d* suggested that the difference was in the "moderate" range for three of the differences, all of which males awarded themselves higher scores (around .5 of a SD) than females.

Demography and Personality

Table 2 shows correlations between sex, age, CORE, the Big Five, and the eight competency self-assessments as well as the factor scores.

There was a clear pattern to most results. Correlations between self-rated competency and age were modest and all positive. Older participants believed themselves to be more competent, particularly for *Leading and Deciding* as well as *Supporting and Cooperating*. Correlations between CORE self-beliefs and the ratings were all positive with three above $r = .20$, particularly *Adapting and Coping*. This suggests those who felt good about themselves tended to feel more competent. All 10 ratings were negatively correlated with Neuroticism, particularly *Adapting and Coping* and *Interacting and Presenting*. Correlations with Extraversion were positive and modest with the exception of *Organizing and Executing*, which Extraverts may experience as "too boring." Only two of the correlations with Openness reached significant levels. Open individuals gave themselves higher ratings for *Analyzing and Interpreting*, as well as *Creating and*

Table 1. Sex Differences on the Eight Competencies Showing Means, *SD*s, ANOVA Results, and Factor Analysis

	Competencies	Male $N = 312$ *M*	Male *SD*	Female $N = 352$ *M*	Female *SD*	*F*	*D*
1.	**Leading and Deciding**. Takes control and exercises leadership. Initiates action, gives direction and takes responsibility.	115.75	(15.95)	112.66	(17.29)	5.44*	.19
2.	**Supporting and Cooperating**. Supports others and shows respect and positive regard for them in social situations. Puts people first, working effectively with individuals and teams, clients, and staff.	118.38	(15.19)	120.55	(14.57)	3.67	–.15
3.	**Interacting and Presenting**. Communicates and networks effectively. Successfully persuades and influences others. Relates to others with a confident relaxed manner.	113.21	(16.52)	111.49	(16.84)	1.75	.10
4.	**Analyzing and Interpreting**. Shows evidence of clear analytical thinking. Gets to the heart of complex problems and issues. Applies own expertise effectively. Quickly takes on new technology.	115.46	(16.89)	111.30	(17.74)	9.34**	.24

5.	**Creating and Conceptualizing**. Works well in situations requiring openness to new ideas and experiences. Seeks out learning opportunities. Handles situations and problems with innovation and creativity.	115.07	(16.00)	111.86	(15.48)	6.34*	.20
6.	**Organizing and Executing**. Plans ahead and works in a systematic and organized way. Follows directions and procedures. Focuses on customer satisfaction and delivers a quality service to the agreed standard.	112.60	(18.42)	117.11	(16.39)	11.57***	–.26
7.	**Adapting and Coping**. Adapts and responds well to change. Manages pressure effectively and copes well with setbacks.	114.64	(16.95)	112.70	(16.96)	2.12	.12
8.	**Enterprising and Performing**. Focuses on results and achieving personal work objectives. Works best when work is closely related to the results and the impact of personal effort is obvious. Shows an understanding of business, commerce, and finance.	115.15	(18.82)	111.30	(17.25)	7.39**	.21

*$p < .05$. **$p < .01$. ***$p < .001$. $F(8, 654) = 7.11$*** Partial Eta Squared .08.

Table 2. Correlations between the Independent (Individual Difference) and Dependent (Rated Competencies) Variables

	Competencies							
	1 L&D	2 S&C	3 I&P	4 A&I	5C&C	6O&E	7A&C	8E&P
Sex	.09	–.08	.04	.12	.09	–.13	.05	.10
Age	**.20**	.07	.00	.05	.06	.11	.05	.08
Neuroticism	–.14	–.13	**–.20**	–.12	–.10	–.09	**–.35**	**–.14**
Extraversion	.17	.19	**.30**	.07	.16	.07	.16	.18
Openness	.00	.07	.08	**.22**	**.30**	.01	.07	.09
Agreeableness	–.08	**.28**	.11	–.03	.06	.10	.14	.01
Conscientiousness	**.24**	**.23**	**.25**	**.22**	.14	**.48**	**.33**	**.28**
Core	**.22**	.16	.27	.12	.18	.13	**.33**	.19

$r < 10$ are $p < .05$
$683 > N < 702$
Correlations > .20 are shown in **bold**.
Key: 1 = Leading and Deciding, 2 = Supporting and Cooperating, 3 = Interacting and Presenting, 4 = Analyzing and Interpreting, 5 = Creating and Conceptualizing, 6 = Organizing and Executing, 7 = Adapting and Coping, 8 = Enterprising and Performing.

Conceptualizing. The correlations with Agreeableness were low and both positive and negative, but self-rated *Supporting and Co-operating* was highly positive which is indeed the characteristic most associated with that trait. All correlations were positive with Conscientiousness suggesting that Conscientious individuals believed themselves to be generally competent at work. Indeed, only one had $r < .20$. The correlations were particularly high for *Organizing and Executing* as well as *Adapting and Coping* but also for the two factors scores. This result tends to confirm H_2, H_3, and H_4.

Table 3 shows the results of the regressions which were done in three blocks (sex and age, Big Five, then CORE).

All eight were significant and accounted for between 13 and 25% of the variance. Overall, the results did show a very different series of predictors for the eight different competencies though some factors seem to load on half or more of the eight analyses (Conscientiousness) while others like Neuroticism seem predictive only of a few.

The first regression showed older, Conscientious, Disagreeable, male Extraverts rated themselves more highly on *Leading and Directing*. The second that older, Agreeable, Conscientious Extraverts rated themselves more highly on *Supporting and Co-operating*. The third showed Conscientious Extraverts with high core beliefs believed themselves to be particularly good at *Interacting and Presenting*. The fourth regressional analysis showed Open, Disagreeable, Conscientious males with high core beliefs tended to give themselves higher ratings on *Analyzing and Interpreting*. The fifth regression showed it was older, Open, Conscientious, Extraverted males with high core beliefs that gave themselves highest scores on *Creating and Conceptualizing*. The sixth regression accounted for most of the variance. It showed that older, male, Conscientious individuals gave themselves highest ratings on the competency *Organizing and Executing*. The seventh regression, which accounted for a quarter of the variance, showed older, Stable, Conscientious individuals rated themselves more highly on the competency concerned with *Adapting and Coping*. The final of the eight regressions showed that it was Conscientious, male Extraverts who rated themselves most highly on *Enterprising and Performing*.

These analyses may lead to Type II errors because of the inter-relationship of the eight factors. Hence the regressions were repeated on the total score of the eight competencies (see Table 4). It accounted for a quarter of the variance and showed older, Stable, Conscientious, Open Extraverts gave themselves highest scores.

Self-Estimated Abilities

Participants also estimated their intelligence, creativity, sense of humor, and ability to learn. A similar series of regressional analyses was performed on these ratings which served as the predictor variables. The results of these analyses are presented in Table 5.

Table 3. Regressions of the Individual Difference Variables on All Eight Competency Self-Assessments

	1 L&D		2 S&C		3 I&P		4 A&I		5 C&C		6 O&E		7 A&C		8 E&P	
	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*
Sex	.08	2.07*	−.03	0.65	.05	1.40	.11	2.76**	.09	2.33*	−.09	2.71***	.04	1.07	.10	2.60**
Age	.23	6.11***	.14	3.63***	.06	1.60	.06	1.58	.08	2.29*	.14	4.00***	.09	2.57**	.10	2.57***
Conscientiousness	.12	2.52**	.00	0.91	.10	2.22*	.12	2.42**	.06	1.35*	−.07	1.50	.08	1.73	.02	.04
Neuroticism	.16	4.04***	.13	3.30***	.23	5.82***	.02	0.44	.13	3.26***	.00	0.08	.06	1.43	.15	3.73***
Extraversion	.02	0.43	.05	1.21	.07	1.85	.24	6.36***	.29	7.85***	.05	1.43	.07	1.81	.09	2.37***
Openness	−.11	2.93**	.23	5.86***	.02	0.54	−.10	2.44**	−.03	0.67	.04	0.91	.04	1.06	.05	1.32
Agreeableness	.21	5.18***	.18	4.38***	.16	3.99**	.21	5.16***	.14	3.37***	.48	12.96***	.25	6.53***	.28	6.74***
Core	.00	0.09	−.04	0.93	−.06	1.33	.00	0.14	−.01	0.22	−.04	1.02	−.26	6.06***	−.04	0.82
F(8, 638)	15.11***		14.58***		15.22***		13.00***		14.12***		27.11***		23.83***		12.80***	
Adj R^2	.15		.15		.15		.15		.15		.15		.15		.15	

Key: 1 = Leading and Deciding, 2 = Supporting and Cooperating, 3 = Interacting and Presenting, 4 = Analyzing and Interpreting, 5 = Creating and Conceptualizing, 6 = Organizing and Executing, 7 = Adapting and Coping, 8 = Enterprising and Performing.

Table 4. Regressional Results with the Total Score as the Criterion Variables and the Demographic and Personality Trait Scores as the Predictor Variables

	Total	
	Beta	*t*
Sex	.06	1.61
Age	.16	4.45***
Neuroticism	–.08	–2.01*
Extraversion	.15	4.10***
Openness	.16	4.38***
Agreeableness	.00	0.62
Conscientiousness	.34	9.03***
Core	–.08	1.71
$F(8, 638)$	26.83***	
Adj R^2	0.25	

*$p < .05$. **$p < .01$. ***$p < .001$.

Two factors predicted self-assessed intelligence: Open participants with high core beliefs gave themselves the highest scores. For creativity, Open, Extraverted, Conscientious males provided the highest scores. It was a very different pattern for sense of humor. Agreeable, male Extraverts with high core beliefs tended to give highest scores. The final regression showed that Open, Conscientious individuals tended to believe they had the highest ability to learn.

Two further regressions were performed in both cases using self-estimated intelligence as the criterion variable. In the first, the eight competencies were predictor variables. This was significant ($F(8, 661) = 47.73$, $p < .001$; *Adj* $R^2 = .36$). Five self-assessed competencies showed significant betas: *Analyzing and Interpreting* ($\beta = .26$, $t = 6.10$, $p < .001$); *Creating and Conceptualizing* ($\beta = .20$, $t = 4.94$, $p < .001$); *Adapting and Coping* ($\beta = .10$, $t = 2.34$, $p < .05$); *Leading and Deciding* ($\beta = .09$, $t = 2.19$, $p < .05$); and *Interacting and Presenting* ($\beta = 2, 09$, $t = 2.19$, $p < .05$). This partly confirms H_5.

This regression was repeated, this time regressing first sex and age, then the six personality variables and finally the eight competencies. The first two blocks accounted for only 7% of the variance and the final block of eight competencies a further 29%. *Analyzing and Interpreting* and *Creativity and Conceptualizing* remained the two major predictors.

Table 5. Regression Results with the Four Ability Ratings as the Criterion Variables and the Demographic and Personality Trait Scores as the Predictor Variables

	Intelligence		Creativity		Humor		Learning	
	Beta	*t*	Beta	*t*	Beta	*t*	Beta	*t*
Sex	.07	1.49	.09	2.25*	.12	3.02***	–.04	0.85
Age	.02	0.47	.03	0.83	.02	0.49	.00	0.21
Neuroticism	–.03	0.54	.05	1.17	.09	1.88	.00	0.16
Extraversion	.04	0.98	.18	4.47***	.19	4.46***	.05	1.12
Openness	.19	4.79***	.27	6.65***	.02	0.47	.17	4.36***
Agreeableness	.07	1.57	.02	0.43	.18	4.24***	–.10	2.30*
Conscientiousness	.07	1.53	.13	3.12**	–.06	1.28	.16	3.57***
Core	.13	2.58***	.04	0.88	.12	2.35**	.09	1.79
$F(8, 638)$	6.52***		12.18***		8.23***		6.17***	
Adj R^2	.07		.13		.09		.06	

*$p < .05$. **$p < .01$. ***$p < .001$.

DISCUSSION

This study set out to examine demographic difference and personality correlates of self-assessed competencies. Programmatic studies on self-estimated abilities and intelligences show that males tend to assess their overall as well as mathematical and spatial intelligence more highly than females despite there being little evidence to support this claim. It was argued that this hubris-humility effect was important because of its possible behavioral consequences (Butler, 2000). That is, that self-assessment reflected self-beliefs and self-confidence which influences the decision making of others. This study found predictable evidence of sex differences on eight self-assessed competencies. Males gave higher assessments on four and the total factor score. Those competencies that showed the greatest differences tended to be active, directing competencies. Indeed, it is interesting to note that two which showed the most difference between males and females were those that were most strongly related to self-assessed intelligence.

However, this study also showed that females tended to give themselves higher ratings on two competencies (*Supporting and Cooperating* and *Organizing and Executing*). Most interestingly, the highest of all the self-assessed competencies was for *Supporting and Cooperating*. These results are almost identical to those of Bartram (2009) using a 160-item measure. The self-estimated intelligence literature does suggest that females tend to give higher self-estimates for emotional rather than cognitive intelligence. It could be argued that these two intelligences are associated with support rather than leading roles in organizations.

If self-rating assessments are in any way self-fulfilling it may be legitimate to suggest that fewer females make it to the top in organizations, because they rate themselves on factors that are more related to reactive, responsive, and supportive roles than those that are pro-active and directing. Further, males who tend to occupy the majority of senior positions may look for competencies that they value in themselves when making recruitment and promotion decisions.

This study also examined personality correlates of the self-assessed competencies. The first noticeable results observable in both Tables 2 and 3 were the considerable differences between self-rated competencies. Thus, of the four factors which were predictive, e.g. *Supporting and Cooperating* (Age, Agreeableness, and Conscientiousness) more were the same than predicted *Creativity and Conceptualizing* (Sex, Extraversion, and Openness). Second, however, it did seem there were discernible patterns. Conscientiousness was significantly positively correlated with all competencies (and two factors) and a significant predictor in seven in total. It is no surprise that Conscientious people rate themselves more competent, because there is good empirical evidence that they are (Furnham, 2006). That is, of the Big Five, Conscientiousness has been consistently related to personal performance. These results are somewhat different from Bartram (2005) who found Conscientiousness positively correlated with

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only three competencies; however, the Big Five were measured somewhat differently to the usual methods.

While Neuroticism in the correlations and regressions was always negatively correlated with self-assessed competency, it was only a significant predictor on one competency (*Adapting and Coping*) and the second factor. It seems that Neurotics have insight into their poor coping strategies and ability to change, which leads to their lower self-assessment.

Both Openness and Agreeableness were significant predictors in only two of the eight individual competency regressions and one factor. The more Open the person, the more highly they rated their *Analyzing/Interpreting* and *Creating/Conceptualizing* ability. This may indeed accurately reflect the link between Openness and Creativity as well as the modest but significant positive correlations between Openness and Intelligence (Furnham, 2008).

Agreeable people gave higher scores for *Supporting and Cooperating* as well as *Organizing and Executing.* Indeed there is evidence that Agreeableness is negatively associated with leadership success because of the unwillingness of Agreeable managers to confront poor performance (Furnham, 2008). Extraversion was positively correlated with all self-estimates and was a significant predictor in four regressions, particularly onto *Interacting/Presenting* which makes sense in terms of the sociability and self-confidence associated with Extraversion.

This study went further than many in this area by introducing Core self-belief as a predictor variable. The correlational results showed Core beliefs were positively correlated with all competency ratings, particularly Adapting/Coping. However, in the regression (entered after the Big Five) it was only a significant predictor in two single competencies. One reason for the fact that it did not reveal a more significant effect is the overlaps of CORE with Neuroticism (which was $r = -.41$). It therefore does not seem to have much incremental validity over and above the Big Five.

This study also examined demographic and personality predictors of four overall evaluations. Openness was significant in three: Intelligence, Creativity, and Learning Ability. Males gave higher estimates for creativity, but not intelligence. This may be due to the fact that this sample contained all working females. Further, Openness was predictive of creativity. It was interesting to note that core-self-beliefs were also predictive of self-rated intelligence. Agreeable, male Extraverts with high core beliefs rated their sense of humor highly, while Conscientious, Open, Disagreeable individuals were more likely to rate their ability to learn. These variables accounted for 6 to 10% of the variance in each and make sense. Indeed, there is literature to support the view that Openness is related to general intelligence, creativity, and the ability to learn (i.e., fluid intelligence) (Batey, Chamorro-Premuzic, & Furnham, in press; Batey & Furnham, 2006; Furnham, 2008). Further, it was interesting that it was primarily the cognitive/analytic competencies of *Analyzing/Interpreting* and *Creating/Conceptualizing* which were the best predictors of the overall rating

of intelligence and which showed highest male vs. female differences, with a male advantage.

These results have shown that self-ratings of competence are logically related to personality. To what extent they could act as proxy measures is, however, uncertain. Further, it would be desirable to see to what extent self-rating and supervisor ratings correlated with each other as a measure of concurrent validity. Equally, it would be most interesting to see to what extent it is possible to train people to be more accurate in their rating where the criterion are the aggregated ratings of others who have good behavioral data on those who they are rating.

However, it did, like all others, have limitations. The personality measures were very brief and the study had no measure of any participant's work history or level in an organization. A major limitation of this study, and many of those in this area, is that of *common method variance*, namely a heavy reliance of self-report for both independent and dependent variables. Podsakoff, MacKenzie, Lee, and Podsakoff (2003) have noted that inflated correlations between constructs (measured by similar methods) may occur for various reasons: rater effects, item characteristics, item content, and measurement context. This is clearly an issue for this study (and all those in this systematic research program) as both sets of variable (independent/predictor vs. dependent/criterion) were based on self-report. However, the measures were very different in format and response scale which may have reduced the problem. Ideally, studies have mixed methods (i.e., observational, as well as behavioral data) to reduce artifacts. Certainly, had the study looked at the predictive validity of actual supervisor observed or behaviorally measured competencies it would have reduced the method variance problem. However, this is a self-rating study focusing specifically on subjective perceptions. It may then have been desirable to get observer ratings of personality rather than self-report to reduce the method variance.

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