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Personality, motivation and job satisfaction: Hertzberg meets the Big Five

Personality,
motivation and
job satisfaction

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Abstract

Purpose – The current study aims to investigate the extent to which personality and demographic variables contribute to motivation and job satisfaction as defined by the two-factor theory.

Design/methodology/approach – A total of 202 fulltime workers completed three questionnaires measuring their personality, work motivation and satisfaction.

Findings – Results demonstrate that between 9 and 15 per cent of the variance in motivation is accounted for by demographic variables and the Big Five personality traits. In line with previous findings (Judge *et al.*), conscientiousness and job status were both significant predictors of job satisfaction, and between 11 and 13 per cent of the variance was accounted for by personality and other demographic variables.

Research limitations/implications – This study was restricted to self-report measure. It never took into consideration other potential confounds like a person's job history, level and responsibilities. It also showed personality factors accounted for very little evidence of the variance.

Practical implications – Implications are discussed in terms of attempts to improve employee attitudes without considering the effects of individual differences. An acknowledgement that individual differences can affect the success of an intervention, may contribute to the design of effective work reorganisation schemes that are better suited to the employees they seek to benefit.

Originality/value – The value of this paper was that it looked at how personality and demographic factors may influence a person's work satisfaction.

Keywords Motivation (psychology), Job satisfaction, Personality

Paper type Research paper

It has long been an aim of work psychology to uncover the reasons why individuals vary in their motivation to work, as well as how individual differences interact with organisational/situational factors to influence individual satisfaction and motivation (Furnham, 2002). Whilst theorists have offered many explanations for the sources of both work motivation and job satisfaction, relatively few individual difference factors have been considered. This study set out to explore the relationship of established individual differences (i.e. the Big five personality factors) to salient work motivation and job satisfaction measures.

Motivation can be defined as “an internal state . . . giving rise to a desire or pressure to act” (Westwood, 1992, p. 288). Job satisfaction, on the other hand, is defined as “the extent to which people are satisfied with their work” (Warr, 2002, p. 1). It is often the case that the two concepts are discussed side by side, as it is arguable that the extent to which an individual is satisfied at work is dictated by the presence of factors and



circumstances that motivates him or her (Furnham, 1992). Indeed, early psychological approaches to motivation conceptualised the desire to act as an intention to “maximise positive results and minimise negative results” (Stress and Porter, 1991, p. 8). The rationale behind contemporary theories of motivation and job satisfaction is to provide a framework through which organisations can better influence their employees’ drive to work and increase their enthusiasm with their roles.

Herzberg *et al.*’s (1959) seminal two-factor theory of motivation postulated that satisfaction and dissatisfaction were not two opposite extremes of the same continuum, but two separate entities caused by quite different facets of work – these were labelled as “hygiene factors” and “motivators”. Hygiene factors are characterised as extrinsic components of job design that contribute to employee dissatisfaction if they are not met. Examples include: supervision, working conditions, company policies, salary, and relations with co-workers. Motivators, however, are intrinsic to the job itself and include aspects such as achievement, development, responsibility and recognition. On the other hand intrinsic factors have long been acknowledged as important determinants of motivation. There is a longstanding debate as to whether hygiene factors really contribute to job satisfaction (Furnham *et al.*, 1999; Warr, 1987).

Most job satisfaction and motivation research literature is concerned with organisational or situational predictors (such as pay and supervision) (Locke, 1976) while neglecting individual differences (Staw and Ross, 1985). O’Reilly *et al.* (1980) discovered that individuals’ significantly differ in the way they perceive their jobs, even if the job description and the tasks they had to perform remained constant, thus suggesting that some individual differences must have an effect on work attitudes.

It would be misleading to suggest a dichotomy between individual difference and situational factors in the determinants of job motivation and satisfaction. People select organisations who select and shape them. Some attitudes and behaviours are encouraged while others are suppressed. There is a rich theoretical tradition surrounding the concept of “psychostructure” that supports this fundamental point (Carr, 1999; La Bier, 1986; Maccody, 2003). In this sense it is always advisable to do longitudinal research, however difficult and expensive, to see causal patterns in how people change work environments and they change those working in them. This paper however is a correlational study in the psychometric tradition seeking to explore the relationship between attitudes, traits and motivation.

Differential psychologists have long stressed individual difference predictor of work performance. Job redesign programmes often have mixed success, despite changing extrinsic circumstances as recommended by motivational theories. Organisational interventions may be mediated both by dispositional factors and individual differences. This contention is supported by a longitudinal study by Staw and Ross (1985), in which employee attitudes (including job satisfaction and work values) were shown to be stable across a five-year period despite changes in both occupations and employers. Indeed, prior attitudes were a stronger predictor of job satisfaction than changes in pay and promotions. Similarly, research carried out on twins separated at birth have demonstrated that on average, 40 per cent of variance in observed work values, was accounted for by genetic factors, whilst 60 per cent was associated with environmental factors and error variance (Keller *et al.*, 1992).

Researchers have given comparatively more attention to the dispositional traits that contribute to job satisfaction partly because on no clear theoretical account of how the

process works (Kanfer, 1990). To illustrate, Arvey *et al.* (1989) showed that in addition to the well-documented contribution of environmental factors, genetic influences account for 30 per cent of variance in job satisfaction. Taken with the fact that most studies regarding the heritability of personality report an average of 0.5 (Goldsmith, 1983; Loehlin and Nichols, 1976), it would therefore be reasonable to assume that personality accounts for at least a part of this contribution (Arvey *et al.*, 1989). Thus, in an often quoted meta-analysis by Judge *et al.* (2002) utilised 334 correlations from over 100 independent samples. The Big Five personality traits showed a multiple correlation of 0.41 with job satisfaction. Particularly strong associations were found between job satisfaction and neuroticism (-0.29), extraversion (0.25), and conscientiousness (0.26). A meta-analysis carried out by Judge and Illies (2002) investigated the relationship between the "Big Five" and three models of motivation: goal setting theory, expectancy theory and self-efficacy motivation based on 150 correlations. Results demonstrated that conscientiousness and neuroticism were the strongest and most consistent associates of performance motivation across the three theories, with correlations of 0.24 and -0.31 respectively. Based upon an average multiple correlation of 0.49 with motivation criteria, it was concluded that the Big Five are an important source of performance motivation. The authors also concluded that in light of the results presented in the meta-analysis, it would be beneficial to investigate the effects of the Big Five on other models of motivation such as the two-factor theory, which thus far has only received minimal attention from researchers.

Staw *et al.* (1986) argued that individual disposition may have a profound influence over how the working world is perceived (i.e. what is important to the individual), and this is likely to affect the type of jobs that are sought. Furnham (1997) speculated that extraverts may be highly motivated by intrinsic factors such as recognition and positive feedback, as such rewards comply with their sociable nature. Theoretical support for the aforementioned speculation is provided by Gray's (1975) theory, which also stipulated that extraverts would respond more readily to reward (motivator factors) than introverts, who he believed were motivated to avoid punishment. Additional speculative examples of how personality may affect work attitudes, include individuals' high in openness being more satisfied with jobs which allow them to learn new skills and be innovative (Furnham *et al.*, 2005).

However, research has demonstrated that "attempts to empirically link personality characteristics to motivational variables have produced inconsistent results" (Gellatly, 1996, p. 474).

An example of a recent study investigating the contribution of personality to Herzberg *et al.*'s (1959) theory of work motivation is that of Furnham *et al.* (1999). Results demonstrated that extraverts (identified by the Eysenck Personality Profiler) regarded motivator factors as more important than Introverts, thus confirming the contentions made by Furnham (1997) and Gray (1975). These findings mirror those of Gupta (1976) who found that in a sample of individuals performing a linguistic task, Extraverts responded more to reinforcement and Introverts more to punishment. Results also showed that neurotics placed more importance upon hygiene factors than non-neurotics. Taken with the marginally significant relationship between psychoticism and hygiene factors, it appeared that Personality factors had a sizeable impact on work motivation, accounting for 20-30 per cent of variance, and provided the basis for future study.

A part replication of Furnham *et al.* (1999), by Furnham *et al.* (2002) not only attempted to illustrate the impact of personality on work values but also on job satisfaction. Findings were not replicated, with the personality super factors from the Eysenck Personality Profiler only accounting for 5 per cent of the variance in the sample. However, when a Big Five measure was used, it was observed that between 8 per cent and 13 per cent of the variance in job satisfaction was explained by personality factors.

The influence of conscientiousness is mirrored in previous findings in job satisfaction literature (e.g. Salgado, 1997; Judge *et al.*, 1999), and thus suggests that this trait is a relatively consistent predictor of job satisfaction (Furnham *et al.*, 2002). A potential explanation for its influence is that conscientious individuals are likely to receive higher intrinsic and extrinsic rewards due to their efficient nature, thus consequently increasing job satisfaction. Additionally, the significant influence of age is supported by previous literature, which suggests that as individuals get older they tend to be more satisfied in their jobs, potentially because they are more capable of aligning their work values to their choice of vocation (Davies *et al.*, 1991).

A more recent study by Furnham *et al.* (2005) sought to find the associations between personality and work values for samples in the UK and Greece. Factor scores demonstrated that responses from both samples could be classified according to intrinsic/extrinsic categories, thus demonstrating a cross-cultural relevance for Herzberg *et al.*'s (1959) theory. Regression analyses revealed that personality variables, age and gender accounted for between 5 and 13 per cent of the variance for each factor. In this instance, motivator concerns were associated positively with extraversion and negatively with openness, whilst high scores in the hygiene-related factor were negatively associated with both extraversion and openness.

Therefore, the purpose of this investigation is to further assess the extent to which individual differences have an effect upon motivation and job satisfaction. Following the statistical advice of Schmidt *et al.* (1976) this study will use a sample consisting of more than 170 individuals ($N > 170$). As suggested by Furnham *et al.* (2005) a wider range of participant demographics will be investigated, these are: years in full time employment, job tenure, and job status. Based on previous research and speculative observations, the following predictions can be made:

- H1. The factorial structure of the work values questionnaire (Mantech, 1983) will reflect between two and four components that can be categorised according to Herzberg *et al.*'s (1959) two-factor theory.
- H2. It is believed that when a measure of the Big Five is regressed on satisfaction/motivation factor scores, personality variables will account for a significant proportion of the variance (Staw and Ross, 1985; Furnham *et al.*, 1999; Furnham *et al.*, 2002; Furnham *et al.*, 2005).
- H3. Based on findings in the literature (e.g. Davies *et al.*, 1991; Furnham *et al.*, 2002), there will be a significant relationship between age and job satisfaction. Due to the likely association between age and job tenure/overall years in full time employment it is believed that these variables will also have a positive association with job satisfaction.
- H4. Based upon previous findings in the literature (Furnham *et al.*, 2002; Salgado, 1997; Judge *et al.*, 1999) conscientiousness will be positively, and neuroticism negatively, associated with extrinsic motivation.

H5. An increased job status according to Herzberg *et al.* (1959) provides individuals with both increased hygiene (e.g. pay, bonus, perks) and Motivator factors (e.g. power, recognition etc.) it is believed that this variable will be positively associated with job satisfaction responses.

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Method

Participants

In all, 202 fulltime employees (81 males, mean age = 38.3, SD = 10.21, and 121 females, mean age = 28.4, SD = 11.17) took part in this study. They were employed in very different jobs in the retail, manufacturing and healthcare. Participants were unpaid and recruited through a group e-mail.

Instruments

The ten item personality inventory (Gosling *et al.*, 2003): the ten items of this measure are scored using a seven-point scale, with two statements (one reversed) used to measure each personality variable. The authors report extensive data showing good reliability and validity of this instrument.

The work values questionnaire (WVQ) (Furnham *et al.*, 2005): this inventory consists of 37 items and requires individuals to report the extent to which intrinsic (e.g. responsibility and personal growth) and extrinsic (e.g. pay and benefits) components are important to them on a six-point scale. The WVQ is a revised version of Mantech's (1983) questionnaire. Previous studies have indicated that between two and four factors tend to be extracted, and that these often correspond to Herzberg *et al.*'s (1959) hygiene and motivator factors (Figure 1).

The job satisfaction scale (Warr *et al.*, 1979): this scale consists of 15 items, seven of which measure intrinsic satisfaction, whilst the remaining eight measure extrinsic job satisfaction. Responses are given on a seven-point scale and can be summed to create and overall satisfaction score as well as an intrinsic and extrinsic value.

Procedure

All questionnaires were completed via a website. Participants were contacted by a group e-mail, which outlined the purpose of the questionnaire, as well as the pre-requisites for taking part. Participation was anonymous and participants' were instructed to copy an internet link into their web browser that would take them to the website on which the questionnaire was located.

Results

1. Correlational Analyses

Table I illustrates the correlations between the personality and demographic variables and job satisfaction scores. Both overall and intrinsic job satisfaction were positively correlated with job status (all $p < 0.01$), whilst extrinsic job satisfaction was negatively correlated with job status ($p < 0.05$). All three job satisfaction scores were positively correlated with conscientiousness (all $p < 0.05$). In addition, it was noted that age, years in full time employment, job tenure and job status were positively associated with each other (all $p < 0.01$).

Instructions: Below are listed 37 different work -related factors that may be important to you when you look for or change jobs. Please indicate how much you personally value each one of them by circling the appropriate number. Give higher ratings to factors that are more important to you and lower ratings to factors that are less important to you. There are no right or wrong answers – we are interested in your personal opinions.

	Unimportant			Important		
	1	2	3	4	5	6
1. Balance – a job that allows me to lead a balanced life.	1	2	3	4	5	6
2. Benefits – a job that provides many features additional to pay (e.g., pension top-ups, extra holidays).	1	2	3	4	5	6
3. Bonuses – a job that provides many opportunities for topping up the basic salary.	1	2	3	4	5	6
4. Clarity – a job with clear and well-defined roles and responsibilities.	1	2	3	4	5	6
5. Comfort – a job that can be carried out in physically comfortable conditions.	1	2	3	4	5	6
6. Competition – a job that provides me with opportunities to compete with others.	1	2	3	4	5	6
7. Conditions – a job that can be carried out in conditions that are safe, modern, and clean.	1	2	3	4	5	6
8. Contribution to society – a job that allows me to work for a good cause.	1	2	3	4	5	6
9. Effortlessness – a job that is relatively easy and does not require excessive effort.	1	2	3	4	5	6
10. Equipment – a job that can be carried out with up-to-date equipment and technology.	1	2	3	4	5	6
11. Flexibility – a job that allows me to work flexible hours to suit my personal needs.	1	2	3	4	5	6
12. Independence – a job that allows me to work autonomously without much supervision.	1	2	3	4	5	6
13. Insurance – a job that provides health and life insurance.	1	2	3	4	5	6
14. Intellectuality – a job that is challenging and involves a lot thinking and analysis.	1	2	3	4	5	6
15. Location – a job that is conveniently located and easily accessible.	1	2	3	4	5	6
16. Organizational image – a job within an organization that is widely recognized and respected.	1	2	3	4	5	6
17. Pay – a job that is very well paid.	1	2	3	4	5	6
18. Perks – a job that provides many extras (e.g., company car, discounts on goods, etc.)	1	2	3	4	5	6
19. Personal growth – a job that provides opportunities for self-improvement.	1	2	3	4	5	6
20. Personal relevance – a job that provides me with opportunities to use my personal talents, education, and training.	1	2	3	4	5	6
21. Power – a job that allows me to control my destiny and be influential.	1	2	3	4	5	6
22. Promotion – a job that provides opportunities for rapid advancement.	1	2	3	4	5	6
23. Recognition – a job that leads to clear and wide recognition of my achievements.	1	2	3	4	5	6
24. Regularity – a job that can be performed in a standard, stable, and controlled manner.	1	2	3	4	5	6
25. Responsibility – a job with many appropriate responsibilities.	1	2	3	4	5	6
26. Safety – a job that can be carried out in safe and secure conditions.	1	2	3	4	5	6
27. Security – a job that is secure and permanent.	1	2	3	4	5	6
28. Simplicity – a job that is not overly complicated.	1	2	3	4	5	6
29. Social interaction – a job that provides many good opportunities for social contact with others.	1	2	3	4	5	6
30. Status – a job that is generally recognized as ‘high-status’ in our society.	1	2	3	4	5	6
31. Stimulation – a job that I personally find very interesting.	1	2	3	4	5	6
32. Supervision – a boss who is fair and considerate.	1	2	3	4	5	6
33. Teaching – a job that allows me to train others and to pass on my expertise.	1	2	3	4	5	6
34. Teamwork – a job that provides me with opportunities to cooperate with others.	1	2	3	4	5	6
35. Tranquillity – a job that is not particularly stressful.	1	2	3	4	5	6
36. Variety – a job that allows me to get involved in many different kinds of activities.	1	2	3	4	5	6
37. Visibility – a job that gives me a fair amount of publicity.	1	2	3	4	5	6

Figure 1.
The work values
questionnaire (WVQ)

	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	—											
2. Age	—0.028	—										
3. Job status	—0.088	0.343**	—									
4. Employment years	—0.128	0.768**	0.468**	—								
5. Job tenure	—0.040	0.465**	0.428**	0.544**	—							
6. Neuroticism	—0.165	0.038	0.025	0.049	—0.033	—						
7. Extraversion	0.039	0.008	0.098	0.047	—0.055	0.065	—					
8. Openness	—0.069	0.136	0.080	0.141*	—0.026	0.202**	0.267**	—				
9. Agreeableness	0.191**	0.218**	—0.143*	0.071	0.017	0.162*	—0.062	0.198**	—			
10. Conscientiousness	0.054	0.210**	—0.018	0.164	0.087	0.108	—0.165*	0.009	0.206**	—		
11. Job satisfaction (JS)	0.061	—0.014	0.209**	0.015	0.054	0.091	0.005	—0.042	0.085	0.174*	—	
12. Intrinsic JS	0.022	0.010	0.253**	0.018	0.066	0.079	—0.025	—0.028	0.057	0.154*	0.948**	—
13. Extrinsic JS	0.096	—0.038	—0.142*	0.010	0.036	0.093	0.106	—0.052	0.104	0.175*	0.946**	0.794**

Notes: $n = 202$; Gender coding, 1 = Male and 2 = Female; * $p < 0.05$; ** $p < 0.01$

Table I.
Correlations among
demographic, personality
and job satisfaction
variables

2. Factor analysis on the WVQ

The 37 items in the WVQ (see Figure 1) was treated to a Principal Components Analyses. An initial factor analysis was run to check for multicollinearity and revealed that no SMC was approaching 0.9. A varimax rotation was then run and the scree plot indicated that three clear factors emerged.

Items that did not sufficiently load onto the extracted factors were removed, and the three factors were given the following names (Table II):

- (1) Factor 1: security and conditions (accounting for 19.6 per cent of the variance as revealed by the rotated sums of squares loadings).
- (2) Factor 2: status and rewards (accounting for 14.4 per cent of the variance).
- (3) Factor 3: personal development and stimulation (accounting for 11.7 per cent of the variance).

Hygiene items largely defined the first factor and motivators predominantly defined the remaining two factors.

Item and classification	1	Factor 2	3
<i>Security and conditions (factor 1)</i>			
Safety (H)	0.741		
Regularity (H)	0.713		
Tranquillity (H)	0.708		
Condition (H)	0.695		
Simplicity (M)	0.680		
Comfort (H)	0.665		
Security (H)	0.576		
Effortlessness (M)	0.565		
Clarity (M)	0.562		
Insurance (H)	0.486		
<i>Status and rewards (factor 2)</i>			
Power (M)		0.697	
Promotion (M)		0.674	
Perks (H)		0.576	
Recognition (M)		0.571	0.485
Bonus (H)		0.549	
Status (M)		0.546	
Visibility (M)		0.537	
Competition (M)		0.524	
Pay (H)		0.511	
<i>Personal development and stimulation (factor 3)</i>			
Personal Growth (M)			0.689
Stimulation (M)			0.605
Intellectual (M)			0.560
Personal relevance (M)			0.532
Responsibility (M)			0.518
Supervision (H)			0.473

Table II.

Factor pattern matrix for the work values questionnaire

Notes: $n = 202$; Loadings less than 0.45 are suppressed; M = Motivator/intrinsic; H = hygiene/extrinsic

3. Regression analyses on WVQ factor scores

In order to investigate the impact of individual differences upon motivation/work values, three regressions were performed, with the three factor scores regressed onto the Big Five, age, gender, total years working full-time, job tenure and job status. All three regressions were shown to be significant (all $p < 0.05$), and the output is illustrated in Table III in compact form. Results demonstrated that the variables accounted for 15.2 per cent of the variance for the security and conditions factor ($F(10, 191) = 3.42, p < 0.01$). Both job status and total years working full-time were significant negative predictors in the equation ($p < 0.05$), whilst Age and Agreeableness were positive significant predictors ($p < 0.05$). In addition, it should be noted that current employment length was approaching significance as positive predictors in the equation (both $p = 0.054$).

The second regression revealed that, the predictor variables accounted for 11.1 per cent of the variance in the status and rewards factor ($F(10, 191) = 2.37, p < 0.05$). The variance accounted for by the five personality factors was not significant (all $p > 0.05$). Both gender and years in full time employment were revealed as negative predictors in the equation (with women more likely to favour this factor). Additionally, job status appeared as a significant positive predictor of the factor ($p < 0.01$).

The third regression demonstrated that the ten variables accounted for 9 per cent of the variance in the personal development and stimulation factor ($F(10, 191) = 2.21, p < 0.05$). Of the personality variables, conscientiousness was a statistically significant predictor of the factor (both $p < 0.05$), whilst openness was near significant ($p = 0.054$). The output revealed that no demographic variable significantly contributed to the equation (all $p > 0.05$).

4. Regression analyses on job satisfaction scores

Regression analyses were also used to assess the extent to which the Big Five and demographic variables influenced job satisfaction scores (intrinsic, extrinsic and

	Security and conditions (factor 1) $F(10, 191) = 3.42^{**}$ $R^2 = 0.152$		Status and rewards (factor 2) $F(10, 191) = 2.37^*$ $R^2 = 0.111$		Personal development and stimulation (factor 3) $F(10, 191) = 2.206^*$ $R^2 = 0.090$	
	β	t	β	t	β	t
Neuroticism	-0.069	-0.99	0.026	0.36	0.066	0.91
Extraversion	0.015	0.21	0.055	0.76	0.075	1.01
Openness	-0.040	-0.55	0.051	0.69	0.147	1.94
Agreeableness	0.150	2.00*	-0.017	-0.23	0.050	0.64
Conscientiousness	0.102	1.44	0.015	0.21	0.185	2.52*
Age	0.242	2.22*	-0.006	-0.06	-0.090	-0.80
Gender	0.054	0.77	-0.163	-2.25*	0.025	0.35
Years in fulltime employment	-0.203	-2.54*	-0.272	-2.28*	-0.128	-1.06
Job tenure	0.160	1.92	-0.051	-0.60	0.038	0.45
Job status	-0.203	-2.54*	0.235	2.87**	0.030	0.37

Notes: $n = 202$; * $p < .05$; ** $p < 0.01$

Table III.
Regressions of work
value factors onto gender,
age, employment years,
job tenure, job status and
personality

overall job satisfaction). Table III illustrates the results in compact form and reveals that all three regressions were statistically significant (all $p < 0.05$). The regression carried out upon the overall job satisfaction scores revealed that the ten variables collectively accounted for 12.1 per cent of the variance ($F(10, 191) = 2.639$, $p < 0.01$). Further examination of the coefficients table revealed that both conscientiousness and job status were significant positive predictors of the variable (both $p < 0.01$).

Results of the regression with intrinsic job satisfaction scores revealed that 12.7 per cent of the variance could be accounted for by the personality and demographic variables ($F(10, 191) = 2.774$, $p < 0.01$). As with overall job satisfaction, both conscientiousness and job status were positive predictors in the equation (both $p < 0.05$).

As Table IV illustrates, the ten variables collectively account for 10.5 per cent of the variance in the extrinsic job satisfaction scores ($F(10, 191) = 2.240$, $p < 0.05$). As with the previous regressions conscientiousness and job status were significant predictors of the variable ($p > 0.05$). Whilst the remaining variables were not significant contributors to the equation, (all $p > 0.05$), it should be noted that both agreeableness and age were both approaching statistical significance (both $p < 0.10$).

Discussion

This study set out to investigate the extent to which personality and demographic factors explain variance in motivation and job satisfaction as defined by Herzberg *et al.*'s (1959) two-factor theory. In line with previous research (Furnham *et al.*, 2002; Furnham *et al.*, 2005), three factors were extracted from the WVQ, and these essentially corresponded to the motivator/hygiene factor categorisation. As predicted, personality and demographic variables were significant correlates of the extracted factors, accounting for between 9 and 15.2 per cent of the variance. Similarly, personality and demographic variables were also significantly related to all three job satisfaction scores and accounted for between 10.5 and 12.7 per cent of the variance. As expected, conscientiousness was a significant correlate of job satisfaction scores in both

Table IV.
Regressions of job satisfaction (overall, intrinsic and extrinsic) onto gender, age, employment years, job tenure, job status and personality

	Overall job satisfaction $F(10, 191) = 2.64^{**}$ $R^2 = 0.121$		Intrinsic job satisfaction $F(10, 191) = 2.77^{**}$ $R^2 = 0.127$		Extrinsic job satisfaction $F(10, 191) = 2.24^*$ $R^2 = 0.105$	
	β	t	β	t	β	t
Neuroticism	0.075	1.04	-0.057	0.80	0.085	1.17
Extraversion	0.033	0.46	0.048	0.66	0.014	0.19
Openness	-0.088	-1.18	-0.075	-1.01	-0.091	-1.21
Agreeableness	0.122	1.59	0.101	1.33	0.129	1.67
Conscientiousness	0.186	2.59 ^{**}	0.175	2.45 [*]	0.177	2.43 [*]
Age	-0.137	-1.23	-0.064	-0.58	-0.198	-1.77
Gender	0.050	0.69	0.008	0.11	0.088	1.21
Years in fulltime employment	-0.047	-0.40	-0.127	-1.07	0.039	0.33
Job tenure	-0.002	-0.03	-0.001	-0.01	-0.003	-0.04
Job status	0.306	3.76 ^{**}	0.353	4.35 ^{**}	0.226	2.75 ^{**}

Notes: ^{*} $p < 0.05$; ^{**} $p < 0.01$

correlational and regression analyses. Contrary to expectations, age, job tenure and years working full time were not significantly related to job satisfaction scores; however, in line with predictions and the two-factor theory, job status was significantly associated with these scores.

The security and conditions factor extracted from participants' responses to the WVQ was largely characterised by hygiene issues regarding physical conditions of the workplace and the extent to which work is stable and clearly defined. This factor was positively associated with agreeableness which Furnham *et al.* (2005) agreed is a robust correlate of work values.

Negative relationships were observed between the security and conditions factor and job status, as well as years in full-time employment. These results suggest that individuals with low job status (e.g. graduate positions and non-managerial roles) are more concerned with working conditions and clarity in their work than those of a higher status and individuals who have been working for longer periods. A potential reason for this is that those in high status positions may take the safety, quality of conditions and regularity of work for granted (Warr, 1987). Similarly, as individuals gain more experience in full-time work they may become accustomed to the regularity associated with work. While a positive relationship between scores in this factor and age was found, it is somewhat contradictory owing to that fact that age is strongly associated with both years in working full-time and job status.

Items associated with the status and rewards factor were largely Motivator orientated in origin. This category was concerned with the extent to which work provides intrinsic rewards (such as promotion/development prospects and power) and to a lesser degree extrinsic rewards (such as pay, perks and bonuses). High scores were positively associated with job status and were negatively associated with the number of years participants had worked full time. A potential explanation for the former observation is that those who are lower in job status (as revealed by significant correlations) may be more orientated towards the hygiene aspects of a job as demonstrated in the results for the security and conditions regression. However, as individuals move up in the company hierarchy it maybe the case that hygiene factors are no longer as salient as they have been achieved/taken for granted, and are instead motivated by the prospect of more power and status (i.e. motivators). This is in line with Maslow's (1954) seminal theory of motivation, which ascertained that once lower order needs have been achieved (e.g. physiological needs and security), individuals shift their focus to higher order needs, culminating in self-actualisation. Whilst hygiene components are present in this factor (bonuses, perks and pay), they can be interpreted as associates of increased power, status and recognition. The negative association between this factor and years in full-time employment is somewhat contradictory given the latter's positive correlation with job status.

However, it is important to remember that job status is not always synonymous of experience, and should thus be further investigated before any firm evaluations can be made. Results also demonstrated that women rated this factor as more important than men, thus suggesting they are more motivated by the prospect of power and status than their male counterparts.

The development and stimulation factor was concerned with the extent to which work allows for intellectual stimulation, recognition, personal growth and responsibility, and was positively associated with conscientiousness. Conscientious

individuals may place higher value on the opportunity to apply themselves and be responsible, as a consequence of their achievement-orientated nature. A near significant relationship was found between scores in this factor and individuals' high in openness to experience. Because such individuals are flexible and creative, it may be the case that they place more importance on the prospect of increased stimulation and personal growth than others.

With regards to job satisfaction, all three categories (overall, intrinsic and extrinsic) were significantly associated with conscientiousness. This observation is in line with previous research investigating the personality correlates of job satisfaction, such as Judge *et al.*'s (2002) meta-analysis, which demonstrated an average correlation of 0.26 between conscientiousness and job satisfaction. This maybe because of their attention to detail, individuals' high in conscientiousness are likely to be rewarded both extrinsically (in the form of bonuses and other perks) and intrinsically (in the form of more responsibility and expanded job roles). In accordance to Herzberg *et al.*'s (1959) this would fulfil both the hygiene and motivator pre-requisites for job satisfaction, thus accounting for its significance.

Scores for all three job satisfaction categories were also positively associated with job status, which is also logical when interpreted in relation to Herzberg's two-factor theory. Individuals of a high job status are more likely to have both hygiene and motivator factors fulfilled by their positions as such roles are likely to involve more variety, recognition, and power as well as satisfactory pay/bonuses and better quality physical working conditions (e.g. a personal office). However, age, job tenure and years working full-time were not significantly related to job satisfaction. However, the near-significant contribution of age (as well as agreeableness) for intrinsic job satisfaction suggests that a larger sample may have produced different results that would be more in line with previous literature (e.g. Davies *et al.*, 1991; Furnham *et al.*, 2002).

As a whole, the results of the current study are in line with previous findings and further validates the contentions proposed by Keller *et al.* (1992) – i.e. work reorganisation strategies focused on the alteration of extrinsic factors alone are unlikely to be successful in their intentions to increase job satisfaction/employee motivation without considering the impact of individual differences. There is theoretical support in Lawler's (1973) expectancy theory, which ascertains that different employees are likely to place different value on certain rewards, and therefore some incentives will motivate them more than others. In practice, this line of thought is adopted in cafeteria-style rewards systems introduced by large organisations (Furnham, 2002). For example, PriceWaterhouseCoopers runs a benefits scheme named "Choices" (source: www.pwc.com), which offers incentives including discounts on flight tickets, childcare vouchers and sabbatical programmes. Such schemes seem to appreciate the role of individual differences in the value placed upon certain rewards (e.g. the priorities of parents' are likely to differ from those of graduates), and illustrates that some organisations are acknowledging motivation research and applying aspects to the design of reward systems.

The results of the current study have demonstrated that the influence of demographic variables should not be underestimated. Whilst age has not consistently shown to contribute to work attitudes (Furnham *et al.*, 2002), the current study suggests that aspects such as job tenure and number of years working full-time can be

influential. Future avenues of research could involve the further investigation of demographic variables and their impact upon motivation and satisfaction; these could include education level and socio-economic status. Through the exploration of such variables, organisations may be in a better position to understand what variables impact upon motivation and job satisfaction, which could in turn inform businesses' how to be more successful in their attempts to influence work attitudes through selection processes and interventions. However it is important to note that this was a correlational study and that causality cannot be inferred. Though it is unlikely that jobs change people's temperaments they may well change their attitudes and beliefs. Only longitudinal behavioural studies can really answer questions of causality.

One obvious issue in this study and those related to it (Furnham *et al.*, 1999, 2002, 2005) is how relatively little variance personality factors account for when examining both motivation and satisfaction. As Tables III and IV illustrate personality, demographic and work factors only accounted for 9-15 per cent of the variance. This begs the obvious and important question as to what accounts for the remaining 80-90 per cent of the variance in these two very important factors at work.

This investigation may have benefited from a more representative sample of the workforce. While there was a wide range of ages, the majority of participants were below 40, and thus it would be of interest to see whether similar results would be gained from a quota sample consisting of a set number of participants for each age/job status/job tenure bracket. It should be noted that the use of an Internet survey allowed a large number of participants to be acquired with ease, however a lack of familiarity with the internet may have prevented some individuals' from participating in the study – indeed, only individuals with email access were able to receive the request to take part. Another methodological concern of the current study is that of common method variance that arises from the use of self-report questionnaires. Future studies could tackle this issue by administering personality inventories at different time periods or perhaps use a behaviour rated scale.

To conclude, this study demonstrates that personality and demographic variables can be significantly related to both job satisfaction and motivation as defined by Herzberg *et al.*'s (1959) two-factor theory. These results further validate the contention that work attitudes are not the product of situational factors alone, and that both literature and organisations should further investigate the variables that contribute to these values with the intention of increasing job satisfaction and performance, through effective selection methods and pervasive job interventions.

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