

Work Personality (Wave), Intelligence and the Dark Side at Work

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Abstract

This study examined the relationship between the “bright” and “dark” side of work personality, as well as their relationship to cognitive ability. In all 374 working adults completed three tests at work: Hogan Development Survey (HDS) (Hogan & Hogan, 2009); Saville Consulting Wave Professional Styles (Saville Consulting, 2005); Raven’s Progressive Matrices (Raven, Raven, & Court, 1998). The four behavioural clusters (Thought, Influence, Adaptability, Delivery) of the “bright side” test were independent of one another. Three of the four correlations between intelligence and personality were significant. Regressions showed that gender, intelligence, and the “dark side” factors measured at facet and higher order levels accounted for between 7% and 37% of the variance. The thought cluster was best predicted by intelligence and high scores on Leisurely, Bold and Imaginative. The influence cluster was best predicted by intelligence (negatively), skeptical, reserved (negative) and colourful. The adaptability cluster was most related to diligence (negatively). Finally, delivery was predicted by intelligence (negatively), excitability (negatively), skeptical and diligence. Limitations and implications are considered.

Keywords

Dark and Bright Side Personality, Intelligence, Work Personality, Gender

1. Introduction

Organisational scientists have spent the last 20 years, trying to identify which are the ingredients that make a senior manager successful. Research has shown that intelligence and personality traits play a vital role on predicting major life outcomes, such work performance (Barrick & Mount, 1991; Judge, Higgins, Thoresen, & Barrick, 1999).

Further, organisational researchers have started to investigate the dark side of personality and work achievement/promotion/experience (Furnham, Crump, & Ritchie, 2013; Spain, Harms, & Lebreton, 2013).

The aim of this study is to investigate behaviours related to workplace, like capability, with the dark side of personality while controlling for intelligence and gender. There have been a number of studies looking at the relation between the “bright” and the “dark” side personality and its connection with work success (Furnham, Hyde, & Trickey, 2012a) as well as the relationship between personality and intelligence (Chamorro-Premuzic & Furnham, 2005a). This study looks at the relation of intelligence and “dark” side personality to workplace personality as assessed by a relatively new, but validated test.

The Wave Professional Styles (Wave) have its foundation on a hierarchical model of occupational personality that is based on the Five Factor Model (FFM) (Costa Jr. & McCrae, 1990) and Great Eight (Bartram, 2005). The wave has four behavioural clusters: thought, influence, adapting and delivery (Table 1). It measures a broad spectrum of work behaviours from personality to motives, talents, preferred culture and competency potential (McDowall & Kurz, 2007). These are conceived of as independent behavioural clusters, which reflect particular work-related competencies.

The Hogan Development Survey (HDS) (Hogan & Hogan, 2001) was used to measure “dark side” traits. The HDS obtains 11 subclinical traits and uses positive softened naming instead of the more negative termed in DSM-IV (see Table 2) (Spain et al., 2013). Factorial analysis has shown that these 11 subscales are separated in three clusters known as moving against (bold, mischievous, colourful, imaginative), moving towards (diligent and dutiful) and moving away from others (excitable, cautious, sceptical, reserved, leisurely) (Furnham & Trickey, 2011; Khoo & Burch, 2008).

Intelligence is measured by using Raven’s Progressive Matrices (Raven, 1990/2000) which is one of the most established, validated and celebrated measures of cognitive ability. Since the end of World War I, the measure of general mental ability (GMA) or

Table 1. The correspondence of the four wave behavioural clusters with the great eight and a combination of five factor model with psychological concepts.

Wave behavioural clusters	Great eight competencies	Five factor model with psychological concepts
Thought	Analysing & interpreting	Intelligence
	Creating & conceptualising	Openness to experience
Influence	Interacting & presenting	Extraversion
	Leading & deciding	Need for power
Adaptability	Supporting & coping	Agreeableness
	Adapting & coping	Emotional stability
Delivery	Organising & executing	Conscientiousness
	Enterprising & performing	Need for achievement

Description was taken from McDowall & Kurz (2007: p. 303).

Table 2. Overlapping themes from HDS and DMS-IV Axis II.

DSM-IV	Definition	HDS scales	Definition
Borderline	Inappropriate anger; unstable and intense relationships.	Excitable	Moody and inconsistent concerns being enthusiastic about persons ideas, and projects and then becoming disappointed in them.
Paranoid	Distrustful and suspicious of others; motives of others are interpreted negatively.	Skeptical	Cynical, distrustful, overly sensitive to criticism, and skeptical of others' true intentions.
Avoidant	Social inhibition; feelings of inadequacy and hypersensitivity to criticism or rejection.	Cautious	Reluctant to take risks for fear of being rejected or negatively evaluated.
Schizoid	Emotional coldness and detachment from socialrelationships; indifferent to praise and criticism.	Reserved	Aloof, detached and uncommunicative; lacking interest in or awareness of the feelings of others.
Passive-Aggressive	Passive resistance to adequate social and occupational performance; irritated when asked to do something he/she does not want to.	Leisurely	Independent; ignoring people's requests and becoming irritated or argumentative if they persist.
Narcissistic	Arrogant and haughty behaviours or attitudes, grandiose sense of self-importance and entitlement.	Bold	Unusually self-confident; feelings of grandiosity and entitlement; over valuation of one's capabilities.
Antisocial	Disregard for the truth; impulsivity and failure to plan ahead; failure to conform	Mischievous	Enjoying risk taking and testing the limits; needing excitement; manipulative, deceitful, cunning and exploitative.
Histrionic	Excessive emotionality and attention seeking; self dramatising, theatrical and exaggerated emotional expression.	Colourful	Expressive, animated and dramatic; wanting to be noticed and needing to be the centre of attention.
Schizotypal	Odd beliefs or magical thinking; behaviour or speech that is odd, eccentric or peculiar.	Imaginative	Acting and thinking in creative and sometimes odd or unusual ways.

Continued

Obsessive-Compulsive	Preoccupations with orderliness; rules, perfectionism and control; over Conscientiousness and inflexible.	Diligent	Meticulous, precise and perfectionistic, inflexible about rules and procedures; critical of others.
Dependent	Difficulty making everyday decisions without excessive advice and reassurance; difficulty expressing disagreement out of fear of loss of support or approval.	Dutiful	Eager to please and reliant on others for support and guidance; reluctant to take independent action or to go against popular opinion.

Note: Description was taken from HDS manual (Hogan & Hogan, 2009) and Spain et al. (2013: p. 4).

intelligence has an important role, in the workplace, especially for hiring employees (Yerkes, 1921). Schmidt & Hunter (2004) found that the correlation range of GMA and job success/performance is from .31 to .73.

Many studies have examined personality correlates of work success (Furnham, 2008; Hurtz & Donovan, 2000). Judge et al. (1999) found in relation to occupational level and income that conscientiousness has a positive relation .51 and .53, openness to experience .26 and .32 and neuroticism $-.26$ and $-.34$ respectively. Studies suggest that conscientiousness is usually the most powerful predictor of all work outcome measures and that together the Big Five factors together may account for between 10% and 30% of the variance. For instance, Furnham et al. (2013) recently demonstrated that conscientiousness, more than any trait or intelligence was the strongest predictor of speed of promotion.

Various studies have examined the relationship between well-known and established personality measures and “dark” side factors (Furnham et al., 2013; Furnham & Crump, 2005). Furnham and Crump (2005) found that neuroticism is predicted by high scores in excitable, skeptical, cautious, leisurely, imaginative, diligent and dutiful and by low scores in reserved, mischievous and colourful. Extraversion is predicted by high scores in bold, mischievous, colourful and imaginative and by low scores in cautious, reserved and diligent. Openness to experience is predicted by high scores in bold, mischievous, colourful and imaginative and by low scores in leisurely. Agreeableness is predicted by high scores in cautious and dutiful and by low scores in excitable, skeptical, reserved, bold, mischievous, colourful and imaginative. Finally, conscientiousness is predicted by high scores in skeptical, bold, colourful and diligent and by low scores in mischievous and imaginative.

Many studies have revealed, perhaps paradoxically, that some “dark” side personality traits are potentially beneficial at work (Furnham & Trickey, 2011; Furnham, Hyde, & Trickey, 2014). More specifically, diligent predicts an individual with high integrity and low counterwork productivity scores, bold is commonly found in many successful CEOs (Chatterjee & Hambrick, 2007). Colourful is positive associated with potential

(Furnham et al., 2012a) as well speed of promotion (Furnham et al., 2013) Mischievious is positively linked with stress tolerance and sales potential (Furnham, Hyde, & Trickey, 2012b) and promotion is positively related with diligent and dutiful (Race, Hyde, & Furnham, 2012).

This study will explore the extent to which the four behavioural clusters of wave are predicted by the dark side of personality while controlling for intelligence and gender. According to the Wave model, thought is associated with openness; influence with extraversion and agreeableness, adaptability with neuroticism and delivery with conscientiousness. Based on previous studies in this area, but using different measurements, it is predicted that imaginative is most associated with thought, colourful with influence, excitable with adaptability and diligence with delivery. It is also predicted that intelligence is positively correlated with thought but negatively correlated with delivery (Furnham et al., 2013).

2. Method

2.1. Participants

In all 374 employees of a UK company took part in this study. Due to missing data on HDS, Ravens and Wave, only 181 were considered where 33 (18.2%) were females. The age of the participants was not collected.

2.2. Materials

Hogan Development Survey (HDS) (Hogan & Hogan, 2009). HDS is a self-administered personality questionnaire that focuses on personality disorders occupying the psychological space halfway between psychopathology and normal personality, which means that it allows for a dimensional approach to the research. It includes 154 items that are dichotomous (true-false). The coefficient alphas were ranging from .5 to .7 with the average alpha coefficient being .64. In the test-retest reliabilities for sample of 60 participants over a three-month interval the range were between .5 and .8, having an average of .68.

The Raven's Progressive Matrices (Ravens). Ravens assesses problem-solving and reasoning ability (Raven, Raven, & Court, 1998) and has been used to more than 45 countries on samples totalling over 240,000 participants (Brouwers, Van de Vigger, & Van Hemert, 2009). The test has 48 items. Each item of this test is consisted by a pattern of diagrammatic puzzles with one piece missing. Ravens helps identify an individual's potential for success in positions like executive, director, general manager or similar professional positions in an organization. The internal validity is .85 in U.S standardisation sample ($N=929$) (Raven, 1990/2000).

Wave Professional Styles. Saville Consulting Wave Professional Styles is an online, self-report measure that was based on the personality model of the Five Factor Model (Costa Jr. & McCrae, 1990) and on the competency model of Great Eight (Bartram, 2005). It has 36 Professional Style dimensions that are divided to four hierarchical factors, called behaviour clusters (Thought, Influence, Adaptability and Delivery). Each

hierarchical factor/cluster contains three sections and each section is consisting by three dimensions. In total there are 12 sections (see [Appendix](#)) (Rojon & McDowall, 2010). In the current study, we will use the four clusters. Wave is used for workplace purposes like recruitment, talent management, and different kinds of development such as team, organisational, personal and coaching. Jayne, Small and Oxley (2006) found internal consistency reliabilities with a mean of .78 and an average corrected validity of .32. Wave has been translated to more than 15 languages and undergone cross-cultural validation to ensure the underlying constructs have remained robust (Saville Consulting, 2005).

2.3. Procedure

Participants were tested by Sixth Sense Consultancy. The participants were given personal feedback on their scores. There anonymised scores were used in this analysis with their consent. They were nearly all employed as middle to senior managers in British company. They took this test as part of an assessment exercise. Inevitably, this could have affected their results because of issues such as impression management and general dissimulation.

3. Results

Data Analysis

First we explored the reliability of the WAVE measure and inter-correlations between the scales. Then we looked at the correlations between the four WAVE scales and the Dark Side traits at both facet and domain level as well as intelligence. Finally we computed a number of regressions to exam the incremental validity of dark side personality over gender and intelligence.

Descriptive statistics of the Wave, Cronbach's Alpha and the inter-correlations of the four clusters are presented in [Table 3](#). When dealing with psychological constructs values below .7 can be realistically expected due to the diversity of the constructs being measure (Kline, 1999). As shown in [Table 3](#), the highest Cronbach's Alpha is .66 and the lowest is .55, which means that the 66% - 55% is considered as true variance. All the four values at Cronbach's Alpha are considered relatively low but expected (Kline, 1999).

Table 3. Descriptive statistics, cronbach's alpha and correlation of the four wave behavioural clusters.

Behavioural clusters	Mean	SD	Cronbach's alpha	Correlation			
				1	2	3	4
Thought	56.73	8.51	.66	-	-.04	.12	.02
Influence	57.07	7.53	.65		-	.20**	.04
Adaptability	53.88	7.88	.57			-	-.10
Delivery	55.32	6.65	.55				-

Note. The numbers in the row under the title "Behavioural Clusters", correspond to the numbers of the columns. $N = 181$, ** $p < .01$.

With regards to the inter-correlations, there is only one significant small positive correlation between Influence and Adaptability, showing the four factors are, as hypothesised, independent of one another.

Descriptive statistics of the HDS, the three clusters of HDS and Ravens as well as and their correlation with the four behavioural clusters of Wave are presented in **Table 4**. Thought has seven small positively significant values ranging from .15 to .26. Influence has three small and two moderate positive correlations ranging from .19 to .58. Furthermore, Influence has also three negative small correlations ranging from $-.16$ to $-.24$. Adaptability has six small to moderate negative correlations ranging from $-.19$ to $-.30$ and three small positive correlations ranging from .16 to .23. Finally, on Delivery there is a small negative correlation of $-.20$ and four positive correlations ranging from .15 to .48. All hypotheses were confirmed.

A series of hierarchical regressions were performed using the four clusters of Wave as dependent variables and HDS, gender and intelligence (Ravens) as independent variables. The results are presented in **Table 5**.

In step 1 of the hierarchical regression, we controlled for gender and intelligence that accounted for 1.2% of the variance of predicting work behaviours (i.e. motives, talents, preferred culture and competency potential) for Thought, 1.8% for Influence, .9% for Adaptability and 2.8% for Delivery. Ravens was significant in all clusters but Adaptability. Ravens has a negative relation with Delivery and Influence but a positive relation with Thought.

Table 4. Descriptive statistics of HDS, Three clusters of HDS, Ravens and their correlation with the four Wave behavioural clusters.

	Mean	SD	Correlations with wave			
			Thought	Influence	Adaptability	Delivery
Excitable	51.43	25.66	.02	.02	$-.20^{**}$	-.14
Skeptical	56.94	26.91	.09	.19^{**}	-.09	.24^{**}
Cautious	44.34	24.17	.04	$-.18^*$	$-.19^{**}$	-.08
Reserved	51.24	26.84	.18[*]	$-.24^{**}$	$-.17^*$.06
Leisurely	51.19	26.74	.26^{**}	-.03	-.11	.02
Bold	58.22	26.86	.18[*]	.22^{**}	.08	.15[*]
Mischievous	58.18	28.59	-.04	.30^{**}	.14	.01
Colourful	56.27	27.73	-.07	.58^{**}	.23^{**}	-.09
Imaginative	54.38	27.40	.19[*]	.14	.16[*]	-.03
Diligent	55.9	26.40	.13	-.12	$-.30^{**}$.48^{**}
Dutiful	54.81	27.62	.09	-.08	.03	-.08
Moving against	227.04	78.47	.09	.44^{**}	.21^{**}	.01
Moving away	255.13	77.75	.22^{**}	-.08	$-.25^{**}$.04
Moving towards	110.71	38.01	.16[*]	-.14	$-.19^*$.27^{**}
Ravens	50.57	28.1	.15[*]	$-.16^*$.05	$-.20^{**}$

Note: $N = 181$, $*p < .05$, $**p < .01$.

Table 5. Hierarchical regressions with Gender and Ravens entered at step 1 and HDS at step 2 of the four Wave Behavioural clusters.

	Thought		Influence		Adaptability		Delivery	
Step 1	$F(2,178) = 2.13$		$F(2,178) = 2.65$		$F(2,178) = .19$		$F(2,178) = 3.56$	
	$R^2_{adj} = .012$		$R^2_{adj} = .018$		$R^2_{adj} = -.009$		$R^2_{adj} = .028$	
Step 2	$F(13,167) = 3.16$		$F(13,167) = 9.09$		$F(13,167) = 3.45$		$F(13,167) = 6.35$	
	$R^2_{adj} = .14$		$R^2_{adj} = .37$		$R^2_{adj} = .15$		$R^2_{adj} = .28$	
	β	t	β	t	β	t	β	t
Gender (step 1)	-.67	-.43	-.75	-.57	.07	.05	-.20	-.16
Ravens (step 1)	.04	2.00*	-.04	-2.24*	.01	.61	-.05	-2.66**
Excitable	.03	1.31	-.02	-.08	-.05	-1.96	-.06	-2.96**
Skeptical	-.01	-.54	.04	2.08*	-.002	-.07	.05	2.72**
Cautious	-.04	-1.50	-.01	-.54	-.03	-1.60	-.05	-.21
Reserved	.04	1.96	-.03	-2.02*	-.03	-1.49	.02	1.35
Leisurely	.06	2.67**	-.05	-.27	-.007	-.29	-.02	-1.13
Bold	.06	2.20*	-.01	-.58	.003	.10	.09	.48
Mischievous	-.03	-1.47	.02	1.43	.02	.72	.05	.30
Colourful	-.04	-1.58	.13	7.17***	.02	.90	-.05	-.29
Imaginative	.06	2.36*	-.01	-.77	.04	1.87	-.02	-1.16
Diligent	.02	.82	-.02	-1.07	-.09	-3.94***	.11	6.44***
Dutiful	.01	.68	.03	.16	.02	1.12	.03	.19
Gender (step 2)	-.24	-.18	-.01	-.93	-1.08	-.73	.41	.37
Ravens (step 2)	.04	2.00*	-.04	-2.40*	-.005	-.024	-.03	-1.86

Note: $N = 181$, * $p < .05$, ** $p < .01$, *** $p < .001$.

In step 2, the HDS explained an additional 12.8% of the variance, with higher values on Leisurely, Bold and Imaginative significantly predicting work behaviours for Thought. Ravens was still a significant predictor suggesting that the high intelligence has a positive relation with Thought. With regards to Influence, an additional 35.2% of variance was explained with both higher values on Skeptical and Colourful but lower values on Reserved significantly predicting work behaviours. Ravens is still a significant predictor suggesting that the high intelligence has a negative relation with Influence. An additional 14.1% of variance was explained with lower values on Diligent significantly predicting work behaviours for Adaptability. Finally, an additional 25.2% of variance was explained when HDS was added with both higher values on Skeptical and Diligent but lower values on Excitable significantly predicting work behaviours for Delivery. Ravens is no longer a significant predictor suggesting that high intelligence is not as important as the dark side of personality for this cluster.

Finally, we also conducted a series hierarchical regressions using the four clusters of Wave as criterion variables, the three clusters/higher order factors of HDS, gender and intelligence as predictor variables. The results are presented in **Table 6**.

Table 6. Hierarchical regressions with Gender and Ravens entered at step 1 and the three clusters of HDS of the four Wave behavioural clusters.

	Thought		Influence		Adaptability		Delivery	
Step 1	$F(2,178) = 2.13$		$F(2,178) = 2.65$		$F(2,178) = .19$		$F(2,178) = 3.56$	
	$R^2_{adj} = .012$		$R^2_{adj} = .018$		$R^2_{adj} = -.009$		$R^2_{adj} = .028$	
Step 2	$F(13,167) = 3.76$		$F(13,167) = 11.24$		$F(13,167) = 5.67$		$F(13,167) = 4.55$	
	$R^2_{adj} = .07$		$R^2_{adj} = .22$		$R^2_{adj} = .12$		$R^2_{adj} = .09$	
	β	t	β	t	β	t	β	t
Gender (Step 1)	-.67	-.43	-.75	-.57	.07	.05	-.20	-.16
Ravens (Step 1)	.04	2.00*	-.04	-2.24*	.01	.61	-.05	-2.66**
Moving Against	.01	1.20	.04	6.64***	.02	3.29**	.02	.35
Moving Away	.02	2.69**	-.01	-1.75	-.03	-3.47**	-.03	-.43
Moving Towards	-.03	1.76	-.02	-1.32	-.03	-1.82	.05	3.88***
Gender (Step 2)	-.31	-.20	-1.49	-1.27	-.82	-.56	-.18	-.15
Ravens (Step 2)	.05	2.33*	-.04	-2.31*	.01	.54	-.046	-2.77**

Note: $N = 181$, * $p < .05$, ** $p < .01$, *** $p < .001$.

In step 1 of the hierarchical regression, we controlled for gender and intelligence (Ravens) that accounted for 1.2% of variance for work behaviours for Thought, 1.8% for Influence, .9% for Adaptability and 2.8% for Delivery. As above, Ravens was significant with all clusters but Adaptability, showing a positive relation with Thought but a negative relation with Influence and Delivery.

In step 2, the three clusters of HDS were added and an additional 5.8% of variance was explained with higher order values on moving away from others significantly work behaviours for Thought. Furthermore, Ravens was still a significant predictor suggesting that the high intelligence has a positive relation with Thought. An additional 20.2% of variance was explained with higher values on moving against others significantly predicting work behaviours for Influence. Noteworthy is that Ravens is still a significant predictor suggesting that the high intelligence has a negative relation with Influence. With regards to Adaptability an extra 11.1% of variance was explained with higher values on moving against others but lower values on moving away from others significantly predicting work behaviours. Finally, an additional 6.2% of variance was explained with higher values on moving towards others significantly predicting work behaviours for Delivery. Ravens was still a significant predictor suggesting that the high intelligence has a negative relation with Delivery.

4. Discussion

The aim of this study was to investigate the relationship of the four behavioural clusters of Wave and the dark side of personality while controlling for intelligence and gender. Gender was not a significant predictor in any of analyses in any step, whereas intelligence was a significant predictor, even if after we controlled for it. We found that high scores on intelligence predicted Thought and low scores on intelligence predicted In-

fluence in both analyses. A possible explanation may lie in the relation of intelligence and FFM. More specifically, Thought is based on intelligence and Openness to Experience. Openness to Experience is the most consistent replicated finding that shows by far the strongest link with intelligence (DeYoung, 2011). The meta-analysis of Ackerman and Heggestad (1997) revealed a moderate correlation of .33. Consequently, it is reasonable that intelligence remained significant predictor at Step 2 in both analyses. Influence is based on Extraversion and need for power. According to DeYoung (2011), studies published since 2000 present a weak negative correlation between Extraversion and intelligence ($r = -.04$), which might explain our finding.

With regards to Delivery, intelligence was a significant predictor in Step 2 only when the three clusters of HDS were entered. A possible explanation might be that since moving towards others contains Diligent, Ravens was influenced by it. Diligent was the most significant scale predicting Delivery. Furthermore, Delivery contains Conscientiousness and need for achievement. Conscientiousness is the best predictor for academic achievement and has a small negative relation with intelligence around $-.12$ (Moutafi, Furnham, & Crump, 2003; Furnham & Chamorro-Premuzic, 2005). Chamorro-Premuzic and Furnham (2005a) proposed that the high scores in conscientiousness in individuals with lower intelligence is a compensatory mechanism; that is more intelligent people need to be less organised and hard-working because they are more efficient. It is possible that the combination of Conscientiousness and Diligent lead Ravens to be a significant predictor on Delivery.

With regards to the dark side of personality, our findings revealed that high scores on Leisurely, Bold and Imaginative predicted Thought. High scores in Openness to Experience predicted Bold and Imaginative however both Furnham and Crump (2005) and Furnham et al. (2013) found low scores of Openness to Experience predict Leisurely where in the current study we found the opposite. A possible explanation might be that Thought is also a combination of three primary sectors and nine dimensions and not such a “clean” measure of Openness.

Influence was predicted by low scores in Reserved and high scores in Skeptical and Colourful. As shown in Table 1, Influence is based on Extraversion and the need for power. Furnham and Crump (2005) and Furnham et al. (2013) found that high scores in Extraversion predicted Colourful and low scores predicted Reserved but they did not find anything for Skeptical. Spain et al. (2013) implied that in HDS, Machiavellianism corresponds to Skeptical. A Machiavellian personality has a need for power; he/she manipulates, lies to and exploits others, in order to satisfy his/her own agenda (Spain et al., 2013; Wu & LeBreton, 2011). Therefore, it is not surprising that high scores in Skeptical predicted Influence.

Adaptability was predicted by low scores in Diligent. One of the constructs of Adaptability is Emotional Stability, which the negative pole of Neuroticism. Our results, which show highscore in Neuroticism predicts Diligent and Cautious, confirms the work of Furnham and Crump (2005) and Furnham et al. (2013). Finally, low scores in Excitable and high scores in Diligent and Skeptical predict Delivery. Furnham and

Crump (2005), and Furnham et al. (2013) found that high scores in Conscientiousness predict Diligent and Skeptical. Furthermore, they found a significant negative correlation of Excitable with Conscientiousness. The negative correlation combined with the fact that Delivery has three sections and nine dimensions might justify our finding.

Despite numerous technical and in-house reports as well as the widespread use of the Wave instrument for selection and coaching in the United Kingdom, few studies have looked at its psychometric properties and correlates. This study showed that, on the basis of its theoretical construction it was possible to test and confirm various hypotheses as to the relationship between the four clusters and intelligence and “dark” side traits.

5. Conclusion

The current study, as many others, has some limitations. The most important limitation is that the Cronbach’s alpha of the Wave is very low and that the results should be interpreted very carefully. Another limitation is that the age of the participants is unknown which we could not control. Furthermore, the method invariance is problematic with most of the occupational studies (Furnham et al., 2012a). All the measurements were self-reports that lead to two main problems; first there is a tendency of an increase of the reported size of the relations (correlations) and social desirability. Ideally we would have had some objective work performance measure as a criterion.

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Appendix

The four clusters of Wave containing the 12 sections and the 36 dimensions.

Cluster	Section	Dimension
Thought	Evaluative	Analytical
		Factual
		Rational
Thought	Investigative	Learning oriented
		Practically minded
		Insightful
Thought	Imaginative	Inventive
		Abstract
		Strategic
Influence	Sociable	Interactive
		Engaging
		Self-promoting
Influence	Impactful	Convincing
		Articulate
		Challenging
Influence	Assertive	Purposeful
		Directing
		Empowering
Adaptability	Resilient	Self-assured
		Composed
		Resolving
Adaptability	Flexible	Positive
		Change oriented
		Receptive
Adaptability	Supportive	Attentive
		Involving
		Accepting
Delivery	Conscientious	Reliable
		Meticulous
		Conforming
Delivery	Structured	Organised
		Principled
		Activity oriented
Delivery	Driven	Dynamic
		Enterprising
		Striving



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