AARHUS UNIVERSITY

Coversheet

This is the accepted manuscript (post-print version) of the article.

Contentwise, the post-print version is identical to the final published version, but there may be differences in typography and layout.

How to cite this publication

Please cite the final published version:

Gøtzsche-Astrup, O. (2018). The bright and dark sides of talent at work: A study of the personalities of talent-development-program participants. *Consulting Psychology Journal: Practice and Research*, 70(2), 167-181. <https://doi.org/10.1037/cpb0000105>

Publication metadata

Title:	The bright and dark sides of talent at work: A study of the personalities of talent-development-program participants
Author(s):	Oluf Gøtzsche-Astrup
Journal:	<i>Consulting Psychology Journal: Practice and Research</i> , 70(2), 167-181
DOI/Link:	https://doi.org/10.1037/cpb0000105
Document version:	Accepted manuscript (post-print)

General Rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognize and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

The bright and dark sides of talent at work: a study of the personality of talent development programme participants

Abstract

This study investigated bright and dark side personality traits of participants in talent development programmes in a range of private Danish organizations (N=602). While previous research has looked at the personality of leaders and high performers, we do not know much about who are selected for talent development programmes. Talents resemble high performers and leaders by being more planful and organised, self-confident, persuasive, and trusting – but also manipulative and grandiose. However, the results indicated that becoming a participant in leadership development programmes is largely a question of selecting-in of desired behaviour rather than selecting-out of undesired behaviour. The results support the use of personality instruments before selection to talent development programmes, and not merely as a part of these programmes.

Keywords: Organizational psychology; personality; talent; dark side personality; leadership.

1.1 Introduction

Being selected for a talent development programme is often a necessary step in climbing the corporate ladder. However, as much as we know about the personalities of those who reach the top, less is known about participants in talent development programmes. Extant research on personality traits as predictors of organizational performance and leadership has found replicable, non-trivial effects, and the field has moved beyond the person-situation dichotomy to appreciate that we need to study how dispositions interact with situations to predict outcome (Judge, Piccolo & Kosalka, 2009). Within organizational psychology, a newer literature has extended the “bright side” Big Five traits into “dark side” territory. The idea of potentially maladaptive “dark side” traits rests on the assumption that dispositions influence not only positive outcomes, such as leadership emergence and performance, but also negative outcomes, such as leadership failure and turnover at work. Organizational leaders tend to differ in predictable ways from others both in terms of the bright and dark sides of personality, but there is a gap in the literature as to how these individuals were singled out for leadership positions. The present paper asks the question whether the distinguishing factors of leaders and high performers are found among participants in talent development programmes. It investigates personality dispositions of a large sample of participants in talent development programmes across several work sectors.

1.2 Bright and dark sides of personality

Personality traits can be broadly understood as the “patterns with which we differ from each other in terms of thinking, feeling, behaving, and relating to others” (Widiger, 2012, p. 13). Since the lexical hypothesis and factor analysis (Allport & Odbert, 1936; Schmidt & Hunter, 2004), a consensus around a five-dimensional model of personality has come into existence, compounded by the spread of validated instruments (McCrae & Costa, 1999) and longitudinal and twin studies showing stability and heritability of personality traits (McCrae & Costa, 2003). The five dimensions are usually labelled Emotional Stability, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience

(John, Naumann & Soto, 2008). More recently, researchers have proposed a new taxonomy of personality traits that captures our dark side tendencies instead of our normal behavioural patterns. The concept of a “dark side” of personality contrasts the “bright side” personality traits and indicates a focus not on traits that help achieve positive organisational outcomes but rather those that may hinder them. Research on the personality correlates of high performance, organisational citizenship behaviours and leadership variables has a basic assumption about the value of investigating positive sides to work and organisation (Schyns, 2015), similar to the approach of the positive psychology movement in other parts of psychology (Seligman & Csikszentmihalyi, 2000). However, this positive organizational psychology risks missing those aspects of personality usually discussed in the clinical psychological literature. Bad leadership is not simply the absence of good leadership, but consists of a qualitatively different set of behaviour (Hogan & Hogan, 2001). For example, a leader without the bright side characteristics needed for good leadership may not be able to engage his followers or subordinates and may subsequently be characterised a poor leader. A bad leader, on the other hand, engages in “destructive” leadership behaviour, such as interpersonal aggression, and may estrange followers and derail entire companies. In their meta-analysis, Schyns and Schilling (2013) find destructive leadership to negatively impact follower well-being and performance, and increase turnover rates and counterproductive work behaviour such as theft. The central assumption is that the Five Factor Model (FFM) framework does not encompass those elements of our personality that are not merely absence of desirable behaviour, but qualitatively different. For example, existing inventories may not be able to describe the self-assuredness of the sub-clinical narcissist or the manipulateness of the sub-clinical anti-social personality structure.

1.3 Extant research

Selecting the right personnel to advance through the “leadership pipeline” is paramount within applied organizational psychology (Collings & Mellahi, 2009). Performance at work can be simply defined as desirable behaviour related to a specific position in an organization (Obisi, 2011), although

operationalisations are numerous (Taticchi, Tonelli & Cagnazzo, 2010). Most organizations have some form of talent development programmes (Gallardo-Gallardo, Nijs, Dries & Gallo, 2015) where individuals are developed and “pipelined” for key leadership positions within organizations (Morley, Scullion, Collings & Schuler, 2015). Thus, talent development programmes are narrower than human resource management, and they encompass the specific programmes for developing talented people for leadership positions (Lewis & Heckman, 2006). This paper focuses on individuals selected for these programmes. Knowing how these individuals are alike and different from others has important practical implications for understanding the process by which organizations choose leaders. Selection into talent development programmes are often prerequisites for moving on to higher positions, and individuals that are selected for talent management programmes often receive additional training and skills through coaching and leadership courses that their counterparts do not at a cost to the company. Selecting the right people for these programmes have a human as well as a financial side to it. However, we do not know much about this process (Lewis & Heckman, 2006).

Selection for talent development programmes is an inherently interpersonal endeavour – people select people – which causes us to expect that psychological biases can influence selection (Gallardo-Gallardo, Nijs, Dries & Gallo, 2015). Personality traits that further selection may therefore be different from those needed to succeed (Lewis & Heckman, 2006). For example, the phenomenon of “managing-up”, where individuals ingratiate themselves through strategic deference to their superiors (Austin, 1989), may predict selection for high potential programmes, but not leadership success. However, in lieu of firm knowledge in this area, a tentative approach may be to expect participants in talent development programmes to have personality traits that resemble that of leaders and high performers.

Extant studies have found Conscientiousness to be the best personality predictor of performance in organizations (Barrick & Mount, 1991; Gaddis & Foster, 2015; Hogan & Holland, 2003; Judge, Rodell, Klinger, Simon & Crawford, 2013; Salgado, 1997; Salgado & Tauriz, 2014). In meta-analyses,

Extraversion and Emotional Stability often positively predict performance. Agreeableness and Openness to Experience are significant predictors of performance in some meta-analyses but not in all. Effect sizes are generally small to medium. For leadership studies (Judge, Bono, Ilies & Gerhardt, 2002; Colbert, Barrick & Bradley, 2014; Moutafi, Furnham & Crump, 2007), Conscientiousness emerges as the best predictor of leadership seconded by Extraversion and Emotional Stability. Openness to Experience is rarely correlated with leadership. While Agreeableness did not emerge as a significant predictor of leadership in the largest meta-analysis (Judge, Bono, Ilies & Gerhardt, 2002), studies of *de facto* leadership have found it to be significantly related to leadership (Palaïou & Furnham, 2014; Colbert, Barrick & Bradley, 2014; Winsborough & Sambath, 2013).

Research on dark side personality is newer and has a less impressive empirical foundation. A popular inventory of dark side personality is the 11 scales of the Hogan Development Survey (HDS) (Hogan & Hogan, 1997a). Adapted to the organizational psychological arena and formulated in sub-clinical terms, the model offers a taxonomy of dark side traits (Furnham, Milner, Akhtar & De Fruyt, 2014; Wille & De Fruyt, 2014). Table 1 presents the 11 scales of the HDS, their three governing themes, and their definitions. As a recent concept, it may be too early to determine whether the dark side casts light over new areas of our personality or whether it will be subsumed as extensions of the Big Five in the future.

Insert Table 1 here

In terms of performance, studies have found negative correlations with Excitable, Cautious, Skeptical, Reserved, and Imaginative, but a positive correlation with Colorful. However, effect sizes are small (Benson & Campbell, 2007; Furnham, Trickey & Hyde, 2012; Harms, Spain & Hannah, 2011; Palaïou, Zarola & Furnham, 2016). Compared to subordinates, leaders tend to have higher scores on the Colorful and Bold factors but lower scores on the Cautious, Excitable, Leisurely, Skeptical, Reserved, Diligent, and Dutiful scales (Furnham, Crump & Chamorro-Premuzic, 2007; Furnham, Crump &

Ritchie, 2013; Winsborough & Sambath, 2013). Table 2 below summarizes the preceding review of the literature.

Insert Table 2 here

1.4 Hypotheses

In the following, the participants denote individuals who are selected for and take part in a talent development programme. Although we have little firm knowledge of the personality characteristics of this group, a fundamental assumption may be that participants should resemble leaders and high performers. From the previous review of the literature, we can make the following predictions: participants are expected to have high scores on Emotional Stability (H1) because it should endow a resilience to work-related stress necessary for high performance. Extraversion is expected to be high (H2). Participants are expected to score high on Conscientiousness (H3) since this factor has consistently been found to predict performance and leadership. Openness to Experience is not a consistent predictor of work-related outcomes, and no differences between participants and non-participants for the Openness factor are expected (H4). Lastly, in situations of high competitiveness, the communality of Agreeableness may lower the chance of selection. Thus, participants are expected to have lower scores (H5).

For the dark side factors, the more limited evidence in terms of correlates of leadership and performance restricts our options for making hypotheses at the scale level. However, if we view the dark side factors at the domain level, we may present testable hypotheses. The first domain, “moving away from people”, which consists of the first five factors of the HDS, concerns distancing yourself from others and avoiding true contact with colleagues and subordinates. Characterised by moodiness, distrust, fear of failure, introversion, and a passive-aggressive demeanour, we expect participants in talent development programmes to have lower scores on the scales within this domain (H6).

The second domain, “moving against people”, concerns aggressive self-confidence, charm, manipulation, imaginativeness, social gregariousness, and attention-seeking. Although these factors are still dark side traits, thought to be related to poorer leadership, they may paradoxically predict the emergence of leaders due to the high visibility of individuals with high scores on these scales. Therefore, we may expect those who are selected for talent management programmes to have higher scores on the scales associated with the “moving against people” domain (H7).

The last domain consists of the Diligent and Dutiful scales, and it concerns moving towards others and building alliances with them. We reviewed evidence that points to a positive correlation with performance but a negative relationship with *de facto* leadership above. Both factors correlate positively with Conscientiousness (Hogan & Hogan, 1997a), which may explain the positive correlations found in the literature. Since participant selection is made on the basis of present performance, we may expect participants to have higher scores on these scales (H8).

2.1 Method

Participants

The first group consisted of 602 participants in talent selection programmes in a range of Danish private companies within the food manufacturing, transportation and shipping, energy, engineering, and manufacturing sectors. The age of participants ranged between 23 and 62 years ($M=42.0$, $SD=7.62$), and 153 of the participants (25.4 %) were female. Testing of participants occurred *after* selection to the programmes but *before* commencement of the programmes. Therefore, although the programmes were different – some included individual coaching sessions, and others combined coaching with team development courses and workshops – we avoid possible effects of the programmes on personality scores. Participants were selected from development programmes that targeted leadership development programmes. Participants in the group had been selected for the programmes on the basis of their potential for organizational leadership, and for some of the

companies, this selection was a requirement for advancement. The second group consisted of non-participant normative groups of Danish working adults. For the Hogan Personality Inventory (HPI), it consisted of 890 individuals between 18 and 69 years ($M=39.8$, $SD=8.82$) of which 412 (46.2 %) were female. For the Hogan Development Survey (HDS), the group of non-participants consisted of 998 individuals between 18 and 69 years ($M=40.2$, $SD=8.52$) of which 424 (42.5 %) were female.

Instruments and operationalisations

Bright side personality: HPI (Hogan & Hogan, 1997b) measured bright side personality through 206 dichotomous items. In organizational psychological practice, the HPI (Hogan & Hogan, 1997b), which has been built around the five-factor model, is often used as a bright side measure. It consists of seven personality scales denoted Adjustment (Emotional Stability), Sociability (gregariousness aspect of Extraversion), Ambition (dominance aspects of Extraversion), Interpersonal Sensitivity (Agreeableness), Prudence (Conscientiousness), Inquisitive (creativity aspect of Openness), and Learning Approach (intellectance aspects of Openness to Experience). Further, each scale is divided into 41 facets, which are based on the Big Five. Test-retest reliabilities are between .74 and .86, and internal reliability estimates are over .71 (Akhtar, Humphreys & Furnham, 2015; Hogan & Holland, 2003).

Dark side personality: The HDS (Hogan & Hogan, 1997a) measured dark side personality traits through 154 dichotomous items. The test-retest reliability of the scales ranges from .64 to .74. Test-retest estimates range from .50 (Dutiful) to .78 (Skeptical) with an average of .67 (Hogan & Hogan, 1997a).

Available in over 40 languages, the HPI and HDS are used extensively by psychological consultancies and assessment centres around the globe (Gaddis & Foster, 2015). The HPI and HDS were administered in Danish.

Procedure

Participants were tested over a 10-year period by a Danish psychological consultancy as part of its work with talent development programmes. All participants were given a personal feedback session after taking the assessment. Permission from the consultancy was secured prior to data analysis.

2.2 Results

Bright and dark side personality traits and talent selection

The variable of interest, i.e. being selected for a talent development programme or belonging to the norm group, is dichotomous, and the personality scores are interval scales. Therefore, multinomial logistic regression was chosen to evaluate the collective predictive power of personality in distinguishing between participants in talent development programmes and norms. Since the norm groups for the HPI and the HDS differ, it was impossible to run a single regression with all scales. Therefore, we were unable to evaluate the incremental validity of the instruments. Rather, the HPI and HDS scale scores were entered into two binomial logistic regression models with group as the dependent variable. Results of these analyses are reported in Tables 3 and 4. Statistical analyses were carried out using the SPSS 22 regression routine.

Insert Table 3 here

Insert Table 4 here

For the HPI, higher scores on Interpersonal Sensitivity decreased the likelihood of belonging to the talent group, while higher scores on Prudence increased this likelihood. For the HDS, higher scores on the Skeptical and Colorful scales decreased the likelihood of belonging to the talent group, while higher scores on the Bold, Mischievous, Imaginative, and Dutiful scales increased the likelihood. Of particular interest is the estimation of the cumulative effect of personality on talent selection as a way to grasp the

substantial significance of the effects. Nagelkerke's pseudo- R^2 was .080 for the HPI. For the HDS, pseudo- R^2 was .222.¹

As logistic regression, and in particular the statistics for total variance explained, can be less intuitive to interpret, we also carried out a series of multiple regressions. We used contrast-coded variables to represent the participant and non-participant groups. Covariates were included to investigate the difference attributable to the two groups over and above the differences in age and gender. Using this procedure, we ask how much of the variation in the scale scores can be explained by whether an individual is in the participant or the non-participant group, controlling for the variation accounted for by gender and age.

Table 5 presents descriptive statistics for the two groups for the HPI and the HDS as well as the results of these second statistical analyses. Scores on the HPI range between a minimum of 0 and a maximum of between 14 (Learning Approach) and 37 (Adjustment). Scores on each HDS scale range between 0 and 14.

The SPSS GLM procedure returns a *t*-value representing the partial effect of including the talent variable in the model, which can be transformed into the effect size Cohen's *d* (Rosenthal & Rosnow, 2008, p. 385). Cohen's *d* is, by convention, interpreted as small ($d=.2$), medium ($d=.5$), or large ($d=.8$) (Cohen, 1988, p. 25; Ferguson, 2009, p. 533).

Insert Table 5 here

In total, there were statistically significant differences for 11 of 18 comparisons at the $\alpha=.05$ level although effect sizes for some of the differences were very small. Participants had lower scores than the

¹ In logistic regression, the statistical equivalent of R-squared, which evaluates the explained variability of the model, does not exist. However, statistics to evaluate the goodness of fit do exist. The Nagelkerke pseudo R-squared evaluates the model fit between 0 and 1 in terms of explained variation (Nagelkerke, 1991). It is reported here since it is comparable with the more familiar R-square although it is important to note that the two statistics are not equal since they rely on different statistical models.

norm group on Sociability and Skeptical and higher scores on Learning Approach and Imaginative.

Participants had lower scores on Interpersonal Sensitivity and Colorful than the norm group but higher scores on Prudence, Excitable, Cautious, Mischievous, and Dutiful. No statistically significant differences were found for Adjustment, Ambition, Inquisitive, Reserved, Leisurely, Bold, or Diligent.

Two scales, Excitable and Cautious, showed signs of positive skew. Since transformation of the scores did not change the results, only the results of the primary analysis are reported here. Since the study was hypothesis-driven, the Holm-Bonferroni method (Holm, 1979) was used to correct for multiple comparisons to avoid inflation in the risk of Type I error. With this adjustment, we fail to reject the null-hypothesis of no differences between models for Sociability, Learning Approach, and Skeptical. The results of the two analyses provide support for H3 and H5. There were some support for H7 and H8 but less support for H6.

Bright side facets

Despite no direct hypotheses for facet scores, they may qualify our understanding of the correlations above. Therefore, an exploratory analysis of the 41 HPI facets was carried out. Table 6 presents the results.

Insert Table 6 here

The participant group differed significantly from the non-participant group on 22 facets. For Prudence, significant but small effects explain the overall effect for the Moralistic, Mastery, Not Autonomous, and Impulse Control facets. For Interpersonal Sensitivity, the effect is driven by Easy to Live With, Likes People, and No Hostility, although effect sizes are small. Though several factors reached significance and small effect sizes for Adjustment and Ambition, differences were not in the same direction. This explains why there were no overall differences in factors between participants and non-participants.

When entered into a multinomial regression, Nagelkerke's pseudo R-squared becomes .573, substantively higher than the .080 of the HPI. The possible impact of these results are discussed below.

3.1 Discussion

The personality characteristics of participants in talent selection programmes are important because these people become the leaders that run our organizations in the future. The existing literature points to the impact of the Big Five personality traits as well as the potential impact of the dark side of personality. Arguably, we want participants in these programmes to resemble successful leaders in terms of personality in order to maximise potential in the talent pool. This paper focuses on furthering our knowledge of which individuals are selected for talent development programmes.

Participants in this study did not differ from non-participants on Emotional Stability or the Extraversion dimension although some of the facet scores showed large effects. For Extraversion, participants had significantly lower scores on the Accomplishment facet than non-participants, indicating less satisfaction with their own accomplishments. Being less satisfied with one's own accomplishments might stimulate a higher drive towards accomplishments in the future. In the multinomial logistic regression, having high scores on Conscientiousness and low scores on Agreeableness increased the likelihood of selection for talent programmes. No difference was found for Openness. In substantive terms, participants in talent programmes tend to be structured, rule abiding, and to control their impulses, but they also tend to be hostile and interpersonally insensitive.

Regarding the dark side personality traits, lower scores on the Skeptical and Colorful scales but higher scores on the Bold, Imaginative, Dutiful and – in particular – the Mischievous scales increased the likelihood of being in the participant group. Participants who are selected for talent development programmes seem to be less distrustful of others and less focused on being the centre of attention than others. Participants had scores consistent with an outwardly charming, persuasive, and self-confident demeanour while being oriented towards creative thinking. At the same time, these traits are also

related to manipulative and exploitative behaviour, grandiose self-evaluation, odd or unusually complex solutions, and a reluctance to provide pushback to superiors. Results indicated that participants in talent development programmes tend to “manage up” and ingratiate themselves with superiors.

Effect sizes were generally small. However, even the smaller effects ($d < .2$) can be considered substantively meaningful and mirror findings in similar previous studies and meta-analyses (Furnham, Crump & Ritchie, 2013; Vedel, 2014). The combination of several smaller effects can add up to a meaningful predictive value as was seen for the multinomial logistic regression of facet scores. Indeed, as for the FFM, the results for the facets indicate that personality should always be evaluated at the facet level. In the debate about whether to focus on factors and facets of personality, the so-called bandwidth-fidelity dilemma (Salgado et al., 2015), these results point to the usefulness of facet scores.

Before discussing the implications of these results for talent development programmes, the relationship between bright and dark side factors is relevant to mention. There are replicable intercorrelations between the Big Five as measured by the HPI and the dark side traits as measured by the HDS (Gøtzsche-Astrup & Furnham, 2015). The relationship between the Big Five and dark side personality traits is neither conceptually nor empirically straightforward. The dark side traits are more than simple extensions of the Big Five factors. In addition, although they afford no simple interpretation as constellations of Big Five traits or facets, Kaiser, LeBreton and Hogan (2015) showed that scores around the normative means of the HDS scales predicted higher levels of leadership behaviours than did both high and low scores. The dark side traits may therefore be conceptualised as compounds of adaptive personality traits that extend into maladaptive territory. The dark side traits represent once adaptive, but flawed assumptions about how to achieve goals in one’s current organizational ecosystem (Kaiser, LeBreton & Hogan, 2015). Supporting this, a study by Harms, Spain and Hannah (2011) showed that the HDS had incremental validity over FFM measures as to predicting leadership

development. Thus, we should not understand the dark side traits as merely 1:1 extensions of the FFM but rather as maladaptive constellations of bright side traits.

Since the norms were different samples, it was not possible to investigate the incremental validity of the HDS. However, we were able to estimate the cumulative effects of the HPI and HDS, or bright side and dark side traits, respectively. The results indicated that the dark side traits substantially better explained selection to talent programmes than did the overall bright side traits. Some of this may be due to the larger number of statistically significant and substantially larger effects in the HDS (7 scales) compared to the HPI (4 scales). For example, the multinomial regression with the 41 HPI facets was the best predictor by far. Albeit speculative, the explanation may also be due to at least two other factors. First, the HDS, and the dark side traits in general, were developed to assess behaviour that risked “derailing” an individual’s career (Hogan & Hogan, 2001). One mechanism through which derailment can happen is by being passed over for the talent development programmes that are often a requirement for advancing within organizations. Second, the effect may reflect the much more general effect of “bad is stronger than good” found in social interaction, relationship outcomes, and organizational outcomes (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Single cases of negative behaviour, such as that characteristic of the dark side and assessed through the HDS, is more likely to be consequential for personnel decisions than regular constructive and productive behaviour. At least, this finding indicates that more research, in particular assessing the incremental validity of the dark side traits, is sorely needed.

Now, it becomes relevant to compare the personality of participants in talent development programmes with that of leaders. As the individuals participating in talent development programmes often end up in managerial roles (Lewis & Heckman, 2006), organizations might wish to select people with personality qualities conducive to performance and leadership. Table 7 below extends on table 2 to provide a comparison between the two groups.

The strongest discrepancy between people participating in talent development programmes and people rated as good leaders is for the Agreeableness scale (Hogan & Holland, 2003; Judge, Rodell, Klinger, Simon & Crawford, 2013). However, the negative Agreeableness relationship with talent selection extends the finding of no correlation in Judge and colleagues (2002) and fits our theoretical expectation of what may help talent selection in competitive environments. Perhaps being acquiescent and friendly *towards peers* is perceived as a sign of weakness in some organizations, even if it makes for better leaders. Furthermore, participants did not differ from non-participants on Emotional Stability and Extraversion, factors related to high performance and leadership (Judge, Bono, Ilies & Gerhardt, 2002; Colbert, Barrick & Bradley, 2014; Moutafi, Furnham & Crump, 2007). Practitioners should keep this in mind when designing talent development programmes to avoid selecting for characteristics that impede leadership potential. Selection of participants who are not well-equipped to handle the pressures of managerial roles restricts the recruitment pool unnecessarily and may lead to poorer leadership. Talents resembled leaders since they had higher scores on Conscientiousness. As this scale predicts not only leadership effectiveness but performance in general (Gaddis & Foster, 2015; Hogan & Holland, 2003; Judge, Rodell, Klinger, Simon & Crawford, 2013; Salgado & Tàuriz, 2014), this provides some support for the notion that talent selection happens on the basis of perceived hard work and organization rather than stress resilience or leadership potential per se.

In terms of the dark side personality factors, the pattern reveals what may be characterised as a select-in rather than a select-out effect. As such, dark side tendencies associated with narcissistic or grandiose self-evaluation, manipulation, risk-seeking behaviour, and complex but sometimes odd patterns of thinking positively predicted selection into development programmes. As these traits have been associated with leadership in other studies (Furnham, Crump & Ritchie, 2013; Winsborough & Sambath, 2013), this does not seem surprising. However, we did not find the expected negative correlations with other dark side tendencies such as emotional volatility, fear of negative evaluations, and an argumentative approach to others. A likely interpretation is that the negative behaviour

associated with these scales does not have a negative impact on performance or promotion on the lower rungs of the managerial hierarchy. As such, we have yet to see the expected select-out mechanisms of maladaptive personality.

Another discrepancy is worth discussing, namely that of the Dutiful scale, indicating ingratiating behaviour and an unwillingness to be critical of superiors. Although negatively associated with leadership (Furnham, Crump & Chamorro-Premuzic, 2007; Furnham, Crump & Ritchie, 2013; Winsborough & Sambath, 2013), in this study, it positively predicted selection for leadership development programmes. However, it fits our expectation that managing up is adaptive to a certain point. Practitioners in this field need to be aware of this element. If they are not, it risks restricting the actual talent pool and wasting resources on individuals without the potential for leadership positions.

3.2 Limitations

Since no overall multiple correlation coefficient was estimated, it was not possible to assess the incremental validity of the dark side traits, although the likelihood of distinguishing between the two groups was higher for the dark side than the bright side traits. Another limitation of this study concerns the observations making up the non-participant group. Since this group was not selected with the comparison to participants in talent development programmes in mind, they were from a wider range of organizations and sectors than the participant group, which may have attenuated the effect sizes. Though it was not possible for the present sample, a within-company comparison of those selected for talent development programmes and those not selected could remedy this issue. It is also worth mentioning that differences are differences in mean scores of normally distributed factors. As such, there is still major variation and overlap between groups. A practical implication of this is that different characteristics may predict success in specific companies or sectors (e.g. Furnham, Hyde & Trickey, 2014). Another limitation concerns the discussion of the different cumulative effects of the HPI and HDS. As the norms were drawn from different samples, there was no way to estimate possible

differences in sample characteristics, even if both were selected to be as representative of the adult working population as possible. As such, it is too early to generalize this finding to other samples.

Future research should attempt to replicate these effects using a single-sample norm group.

In spite of this, owing to the statistical control for gender and age, imbalances in these variables that often restrict generalizability were not an issue. Cross-sectional data does not allow for causal conclusions. Since personality testing was carried out before commencement of the programme, we can rule out any effect of the programme itself on the personality scores. Because testing commenced after *selection*, furthermore, we can rule out the possibility that the personality *scores* (rather than the behaviour that they assess) influenced selection. Given the stability of personality in adulthood (McCrae & Costa, 2003), it seems plausible that personality influenced selection into talent development programmes and not the other way round.

4.1 Conclusion

Being selected for participation in talent development programmes is often a requirement for advancement to leadership positions within organizations. The present study investigated the personality characteristics of individuals chosen for talent development programmes. Several characteristics set talents apart from other working adults. Talents resemble high performers and leaders by being more planful and organised, self-confident, persuasive, and trusting – but also manipulative and grandiose. Results indicated that to distinguish talents from norms, facet scores might be helpful. However, the results indicated that becoming a participant in leadership development programmes is largely a question of selecting-in of desired behaviour rather than selecting-out of undesired behaviour. As such, the discrepancies are a caution to practitioners to look out for individuals that may be skilled at presenting a particular façade – one that may crackle at higher levels of the leadership ladder. The overall conclusion of the investigation is that while talent selection seems to work on some factors, there seems to be a potential for improving selection procedures for

participation in talent development programmes by focusing more on the personality traits associated with successful leadership. Future research might look at whether different traits predict leadership and performance in different sectors or organizations – similar to the way recent educational psychological studies have found that different personality traits predict academic success across majors (e.g. Vedel, 2014).

Acknowledgements

I thank the anonymous reviewers whose comments helped improve and clarify this manuscript.

References

- Akhtar, R., Humphreys, C., & Furnham, A. (2015). Exploring the relationships among personality, values, and business intelligence. *Consulting Psychology Journal: Practice and Research*, 67(3), 258-276.
- Allport, G. W., & Odbert, H. S. (1936). Trait-names: A psycho-lexical study. *Psychological Monographs*, 47(1), 1-171.
- Austin, M. J. (1989). Managing up: Relationship building between middle management and top management. *Administration in Social Work*, 12(4), 29-46.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of general psychology*, 5(4), 323-370.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. *Personnel psychology*, 44(1), 1-26.
- Benson, M. J., & Campbell, J. P. (2007). To be, or not to be, linear: An expanded representation of personality and its relationship to leadership performance. *International Journal of Selection and Assessment*, 15(2), 232-249.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). New Jersey: Lawrence Erlbaum.
- Colbert, A. E., Barrick, M. R., & Bradley, B. H. (2014). Personality and leadership composition in top management teams: Implications for organizational effectiveness. *Personnel Psychology*, 67(2), 351-387.
- Collings, D. G., & Mellahi, K. (2009). Strategic talent management: A review and research agenda. *Human Resource Management Review*, 19(4), 304-313.

- Ferguson, C.J. (2009). An effect size primer: A guide for clinicians and researchers. *Professional Psychology: Research and Practice*, 40, 5, 532-538.
- Furnham, A., Crump, J., & Chamorro-Premuzic, T. (2007). Managerial level, personality and intelligence. *Journal of Managerial Psychology*, 22(8), 805-818.
- Furnham, A., Crump, J., & Ritchie, W. (2013). What it takes: Ability, demographic, bright and dark side trait correlates of years to promotion. *Personality and Individual Differences*, 55(8), 952-956.
- Furnham, A., Hyge, G., & Trickey, G. (2014). The dark side of career preference: dark side traits, motives, and values. *Journal of Applied Social Psychology*, 44, 106-114.
- Furnham, A., Milner, R., Akhtar, R., & De Fruyt, F. (2014). A review of the measures designed to assess DSM-5 personality disorders. *Psychology*, 5(14), 1646-1686.
- Furnham, A., Trickey, G., & Hyde, G. (2012). Bright aspects to dark side traits: Dark side traits associated with work success. *Personality and Individual Differences*, 52(8), 908-913.
- Gaddis, B. H., & Foster, J. L. (2015). Meta-Analysis of Dark Side Personality Characteristics and Critical Work Behaviors among Leaders across the Globe: Findings and Implications for Leadership Development and Executive Coaching. *Applied Psychology*, 64(1), 25-54.
- Gallardo-Gallardo, E., Nijs, S., Dries, N., & Gallo, P. (2015). Towards an understanding of talent management as a phenomenon-driven field using bibliometric and content analysis. *Human Resource Management Review*, 25(3), 264-279.
- Gøtzsche-Astrup, O., & Furnham, A. (2015). The relationship between bright-and dark-side personality traits. *Personality and Individual Differences*, 87, 206-211.
- Harms, P. D., Spain, S. M., & Hannah, S. T. (2011). Leader development and the dark side of personality. *The Leadership Quarterly*, 22(3), 495-509.
- Hogan, J., & Holland, B. (2003). Using theory to evaluate personality and job-performance relations: a socioanalytic perspective. *Journal of Applied Psychology*, 88(1), 100-112.

- Hogan, R., & Hogan, J. (1997a). *Hogan Development Survey Manual*. Tulsa, OK: Hogan Assessment Systems.
- Hogan, R., & Hogan, J. (1997b). *Hogan Personality Inventory Manual*. Tulsa, OK: Hogan Assessment Systems.
- Hogan, R., & Hogan, J. (2001). Assessing leadership: A view from the dark side. *International Journal of Selection and Assessment*, 9(1-2), 40-51.
- Holm, S. (1979). A simple sequentially rejective multiple test procedure. *Scandinavian journal of statistics*, 65-70.
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm Shift to the Integrative Big-Five Trait Taxonomy: History, Measurement, and Conceptual Issues. Pp. 114-158 in O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed.). New York, NY: Guilford Press.
- Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership: a qualitative and quantitative review. *Journal of applied psychology*, 87(4), 765-780.
- Judge, T. A., Piccolo, R. F. & Kosalka, T. (2009). The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *The Leadership Quarterly*, 20(6), 855-875.
- Judge, T. A., Rodell, J. B., Klinger, R. L., Simon, L. S., & Crawford, E. R. (2013). Hierarchical representations of the five-factor model of personality in predicting job performance: Integrating three organizing frameworks with two theoretical perspectives. *Journal of Applied Psychology*, 98(6), 875-925.
- Kaiser, R. B., LeBreton, J. M., & Hogan, J. (2015). The dark side of personality and extreme leader behavior. *Applied Psychology*, 64(1), 55-92.
- Lewis, R. E., & Heckman, R. J. (2006). Talent management: A critical review. *Human resource management review*, 16(2), 139-154.

- McCrae, R. R., & Costa, P. T. (1999). A five-factor theory of personality. Pp. 139-153 in L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed.). Guilford Press: New York.
- McCrae, R. R., & Costa, P. T. (2003). *Personality in adulthood: A five-factor theory perspective*. Guilford Press: New York.
- Morley, M. J., Scullion, H., Collings, D. G., & Schuler, R. S. (2015). Talent management: A capital question. *European Journal of International Management*, 9(1), 1-8.
- Moutafi, J., Furnham, A., & Crump, J. (2007). Is managerial level related to personality? *British Journal of Management*, 18(3), 272-280.
- Nagelkerke, N. J. (1991). A note on a general definition of the coefficient of determination. *Biometrika*, 78(3), 691-692.
- Obisi, C. (2011). Employee performance appraisal and its implication for individual and organizational growth. *Australian Journal of Business and Management Research*, 1(9), 92-97.
- Palaiou, K., & Furnham, A. (2014). Are bosses unique? Personality facet differences between CEOs and staff in five work sectors. *Consulting Psychology Journal: Practice and Research*, 66(3), 173-196.
- Palaiou, K., Zarola, A., & Furnham, A. (2016). The dark side of personality predicts positive and negative work attitudes. *Personality and Individual Differences*, 88, 12-16.
- Salgado, J.F. (1997). The Five Factor model of personality and job performance in the European community. *Journal of Applied Psychology*, 82, 30-43.
- Salgado, J. F., Moscoso, S., Sanchez, J. I., Alonso, P., Choragwicka, B., & Berges, A. (2015). Validity of the five-factor model and their facets: The impact of performance measure and facet residualization on the bandwidth-fidelity dilemma. *European Journal of Work and Organizational Psychology*, 24(3), 325-339.

- Salgado, J. F., & Tàuriz, G. (2014). The Five-Factor Model, forced-choice personality inventories and performance: A comprehensive meta-analysis of academic and occupational validity studies. *European Journal of Work and Organizational Psychology*, 23(1), 3-30.
- Schmidt, F. L., & Hunter, J. (2004). General mental ability in the world of work: occupational attainment and job performance. *Journal of personality and social psychology*, 86(1), 162-173.
- Schyns, B. (2015). Dark personality in the workplace: Introduction to the special issue. *Applied Psychology*, 64(1), 1-14.
- Schyns, B., & Schilling, J. (2013). How bad are the effects of bad leaders? A meta-analysis of destructive leadership and its outcomes. *The Leadership Quarterly*, 24(1), 138-158.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5-14.
- Taticchi, P., Tonelli, F., & Cagnazzo, L. (2010). Performance measurement and management: a literature review and a research agenda. *Measuring business excellence*, 14(1), 4-18.
- Thurstone, L. L. (1947). *Multiple Factor Analysis*. Chicago, IL: University of Chicago.
- Vedel, A. (2014). The Big Five and tertiary academic performance: A systematic review and meta-analysis. *Personality and Individual Differences*, 71, 66-76.
- Widiger, T. A. (2012). *The Oxford Handbook of Personality Disorders*. New York: Oxford University Press.
- Wille, B., & De Fruyt, F. (2014). Fifty Shades of Personality: Integrating Five-Factor Model Bright and Dark Sides of Personality at Work. *Industrial and Organizational Psychology*, 7(1), 121-126.
- Winsborough, D. L., & Sambath, V. (2013). Not like us: An investigation into the personalities of New Zealand CEOs. *Consulting Psychology Journal: Practice and Research*, 65(2), 87-107.

Table 1. Labels and definitions of the 11 scales of the Hogan Development Survey and governing themes.

Horney trend	HDS	Features in the HDS
Detached	Excitable	Moody, hard to please, intense but short-lived enthusiasm for people and projects.
	Reserved	No interest in or awareness of others, aloof, detached, uncommunicative.
	Skeptical	Distrustful of others, doubtful of others' intentions, cynical.
	Leisurely	Argumentative, overly irritated by others, independent.
Aggressive	Cautious	Reluctant to take risks, fears negative evaluation and social rejection.
	Colorful	Dramatic, expressive, wanting to be noticed and be the centre of attention.
	Bold	Very self-confident, grandiose feelings and over-valuation of own abilities.
	Mischievous	Risk-taking and excitement-seeking, deceitful, manipulative, and exploitative.
Compliant	Imaginative	Creative and sometimes odd or unusual behavioural and thinking style.
	Diligent	Precise and perfectionistic, but inflexible about formal procedures, critical about others' performance.
	Dutiful	Reluctant to be critical of others, eager to please, reliant on others for support and guidance.

Note: Adapted from the HDS manual (Hogan & Hogan, 1997a).

Table 2: The personality of leaders.

	Leadership effectiveness
Big Five	
Emotional	+
Stability	
Extraversion	+
Agreeableness	
Conscientiousness	+
Openness	
Dark side factors	
Excitable	-
Skeptical	-
Cautious	-
Reserved	-
Leisurely	-
Bold	+
Mischievous	+
Colorful	+
Imaginative	+
Diligent	-
Dutiful	-

Note: +/- indicate positive/negative relation to leadership.

Table 3: Parameter estimates of binomial logistic regression for HPI scales. Norms are reference category.

Parameter	B	S.E.	Wald	Sig.	Exp(B)	95% CI for Exp(B)	
						Lower	Upper
Constant	-.177	.646	.075	.784			
Adjustment	.008	.014	.339	.560	1.008	.981	1.037
Ambition	-.017	.020	.660	.417	.984	.945	1.024
Sociability	.001	.017	.005	.943	1.001	.968	1.036
Inter.Sens.	-.160	.029	30.236	<.001	.853	.805	.902
Prudence	.110	.017	44.385	<.001	1.116	1.081	1.153
Inquisitive	.022	.015	1.990	.158	1.022	.992	1.053
Learn.Approach	.033	.024	1.982	.159	1.034	.987	1.083

Note: Pseudo R-square (Nagelkerke)=0.080.

Table 4: Parameter estimates of binomial logistic regression for HDS scales. Norms are reference category.

Parameter	B	S.E.	Wald	Sig.	Exp(B)	95% CI for Exp(B)	
						Lower	Upper
Constant	-1.776	.379	21.987	.000			
Excitable	.042	.028	2.243	.134	1.042	.987	1.101
Skeptical	-.166	.029	32.008	<.001	.847	.800	.897
Cautious	.048	.030	2.552	.110	1.049	.989	1.112
Reserved	-.041	.028	2.071	.150	.960	.908	1.015
Leisurely	-.052	.029	3.220	.073	.950	.898	1.005
Bold	.077	.026	8.851	.003	1.080	1.027	1.136
Mischievous	.234	.029	67.010	<.001	1.264	1.195	1.337
Colorful	-.276	.025	120.350	<.001	.759	.722	.797
Imaginative	.111	.024	21.473	<.001	1.117	1.066	1.171
Diligent	.011	.022	.258	.611	1.011	.969	1.056
Dutiful	.179	.028	39.941	<.001	1.196	1.132	1.265

Note: Pseudo R-square (Nagelkerke)=0.222.

Table 5: Descriptive statistics, *p*-values and effect sizes for a series of multiple regressions with GLM routine comparing participants' and non-participants' scores for the HPI, controlling for the covariates age and gender.

	Non- participants	Participants		
HPI and HDS Scale	<i>Mean(SD)</i>	<i>Mean(SD)</i>	<i>Unadjusted p-value</i>	<i>Effect size (d)</i>
HPI				
Adjustment	28.0(5.18)	27.4(5.03)	.124	-.0814
Ambition	25.4(3.62)	25.6(3.65)	.051	-.103
Sociability	15.3(3.94)	14.8(4.26)	.017*	-.127
Int. Sensitivity	19.1(2.01)	18.3(2.47)	<.001	-.210
Prudence	18.3(3.95)	19.6(4.00)	<.001	.317
Inquisitive	14.5(4.03)	14.4(4.11)	.148	-.0765
Learning Approach	9.38(2.65)	9.79(2.51)	.013*	.132
HDS				
Excitable	2.59(2.36)	3.03(2.43)	<.001	.209
Skeptical	4.02(2.06)	3.75(2.58)	.023*	-.117
Cautious	2.87(2.50)	3.53(2.60)	<.001	.311
Reserved	4.69(1.89)	4.83(2.52)	.465	.0378
Leisurely	3.14(2.29)	3.29(2.32)	.146	.0750
Bold	7.79(2.50)	7.92(2.71)	.304	.053
Mischievous	6.49(2.25)	7.11(2.62)	<.001	.220
Colorful	8.45(2.89)	7.22(2.88)	<.001	-.430
Imaginative	6.54(2.56)	7.08(2.96)	.001	.173

Diligent	8.58(2.59)	8.72(2.73)	.076	.0916
Dutiful	6.39(1.94)	7.05(2.41)	<.001	.364

Note: * no longer significant after Holm-Bonferroni correction.

Table 6: Descriptive statistics, *p*-values and effect sizes for a series of multiple regressions with GLM routine comparing participant and non-participant scores for the HPI facet scores, controlling for age and gender.

HPI Facets by scale	Non- participants	Participants	<i>Unadjusted</i>	
	<i>Mean(SD)</i>	<i>Mean(SD)</i>	<i>p-value</i>	<i>Effect size (d)</i>
Adjustment				
Empathy	3.41(.045)	3.37(.067)	.284	-.0566
Not Anxious	2.98(.039)	2.68(.057)	<.001	-.293
NoGuilt	4.88(.042)	4.86(.061)	.354	-.0489
Calmness	3.02(.025)	3.21(0.04)	.013	.132
Even Tempered	3.70(.038)	3.68(.054)	.298	-.0550
No Complaints	4.65(.025)	3.94(.051)	<.001	-.759
Trusting	2.47(.025)	2.32(.043)	.002	-.163
Good Attachment	2.84(.046)	3.84(.063)	<.001	.593
Ambition				
Competitive	4.60(.024)	4.10(.025)	<.001	.187
Self Confidence	2.45(.025)	2.60(.031)	.015	.128
Accomplishment	5.78(.023)	5.06(.058)	<.001	-.704
Leadership	5.10(.045)	5.39(.052)	.053	.102
Identity	2.52(.029)	2.58(.041)	.789	.0142
No Social Anxiety	5.16(.041)	5.14(.067)	.117	-.0828
Sociability				

Likes Parties	3.00(.038)	2.87(.061)	.099	-.0871
Likes Crowds	2.67(.043)	2.54(.063)	.377	-.0467
Experience Seeking	4.78(.043)	4.81(.068)	.511	-.0347
Exhibitionistic	2.97(.044)	2.69(.069)	.001	-.174
Entertaining	1.93(.048)	1.86(.067)	.345	-.0499
Interpersonal sensitivity				
Easy To Live With	4.68(.02)	4.58(.034)	.009	-.139
Sensitive	3.54(.025)	3.41(.037)	.0701	-.0957
Caring	3.61(.02)	3.56(.033)	.875	.00830
Likes People	5.31(.032)	5.00(.065)	<.001	-.186
No Hostility	1.93(.026)	1.78(.038)	.0132	-.131
Prudence				
Moralistic	2.44(.039)	2.87(.054)	<.001	.303
Mastery	2.34(.037)	2.68(.051)	<.001	.317
Virtuous	3.52(.035)	3.59(.055)	.442	.0407
Not Autonomous	1.10(.038)	2.15(.049)	.002	.160
Not Spontaneous	2.54(.03)	2.46(.047)	.227	-.0638
Impulse Control	1.60(.047)	1.96(.066)	<.001	.252
Avoids Trouble	3.87(.036)	3.89(.058)	.336	.0509
Inquisitive				
Science Ability	2.37(.048)	2.81(.068)	.001	.169
Curiosity	2.24(.028)	2.39(.041)	.361	.0483
Thrill Seeking	1.96(.05)	2.22(.071)	.104	.0859
Intellectual Games	1.76(.033)	1.78(.047)	.537	.0326

Generates Ideas	3.85(.039)	3.33(.064)	<.001	-.380
Culture	2.29(.041)	1.92(.058)	<.001	-.230
Learning Approach				
Education	2.51(.028)	2.65(.034)	.002	.164
Math Ability	1.82(.036)	2.27(.045)	<.001	.307
Good Memory	2.87(.036)	2.91(.051)	.538	.0325
Reading	2.19(.041)	1.96(.065)	.046	-.105

Table 7: The personality of leaders and talents.

	Leadership personality	Participants in leadership development programmes
Big Five		
Emotional Stability	+	
Extraversion	+	
Agreeableness	+	-
Conscientiousness	+	+
Openness		
Dark side factors		
Excitable	-	
Skeptical	-	-
Cautious	-	
Reserved	-	
Leisurely	-	
Bold	+	+
Mischievous	+	+
Colorful	+	-
Imaginative	+	+
Diligent	-	
Dutiful	-	+

Note: +/- indicate positive/negative relation to leadership.