### PERSONALITY AND INDIVIDUAL DIFFERENCES

**AN INTERNATIONAL JOURNAL OF RESEARCH INTO THE STRUCTURE AND DEVELOPMENT OF PERSONALITY, AND THE CAUSATION OF INDIVIDUAL DIFFERENCES**

**Editors-in-Chief**
- Dr. T. Vernon, Canada
- Dr. S. B. G. Eysenck, London

**Founding Editor**
- Professor M. J. Eysenck

<table>
<thead>
<tr>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Articles</td>
</tr>
<tr>
<td>81</td>
</tr>
<tr>
<td>83</td>
</tr>
<tr>
<td>91</td>
</tr>
<tr>
<td>95</td>
</tr>
<tr>
<td>102</td>
</tr>
<tr>
<td>107</td>
</tr>
<tr>
<td>112</td>
</tr>
<tr>
<td>117</td>
</tr>
<tr>
<td>123</td>
</tr>
</tbody>
</table>

(Continued on inside back cover)

### OFFICIAL JOURNAL OF THE INTERNATIONAL SOCIETY FOR THE STUDY OF INDIVIDUAL DIFFERENCES (ISSID)

This article appeared in a journal published by Elsevier. The attached copy is furnished to the author for internal non-commercial research and education use, including for instruction at the authors institution and sharing with colleagues.

Other uses, including reproduction and distribution, or selling or licensing copies, or posting to personal, institutional or third party websites are prohibited.

In most cases authors are permitted to post their version of the article (e.g. in Word or Tex form) to their personal website or institutional repository. Authors requiring further information regarding Elsevier’s archiving and manuscript policies are encouraged to visit:

http://www.elsevier.com/copyright
Short Communication

Exploring the tripartite model of authenticity within Gray's approach and inhibition systems and Cloninger's bio-social model of personality

Diana G. Pinto a,⁎, John Maltby a, Alex M. Wood b

a School of Psychology, University of Leicester, Leicester LE1 9HN, United Kingdom
b School of Psychological Sciences, University of Manchester, 1.18 Copland Building 1, Oxford Road, Manchester M13 9PL, United Kingdom

A R T I C L E   I N F O

Article history:
Received 9 December 2010
Received in revised form 23 March 2011
Accepted 30 March 2011
Available online 21 April 2011

Keywords:
Authenticity
Inhibition
Approach
Reward
Avoidance
Persistence

A B S T R A C T

We consider to what extent authenticity is related but distinct from Gray's (1982, 1985) behavioural inhibition/approach systems and Cloninger's psychobiological model (Cloninger, Svrakic, & Przybeck, 1993). Five-hundred and fifty-four adults (250 males, 304 females) completed measures of authenticity (Wood, Linley, Maltby, Baliousis, & Joseph, 2008), behavioural inhibition/activation (BIS/BAS, Carver & White, 1994) and Cloninger's temperament and character inventory (TCI-IPIP, Goldberg et al., 2006). Small to moderate correlations are reported between authenticity and inhibitory and approach dimensions of Gray's and Cloninger's models. The directions of these relationships are consistent with Horney's (1945, 1951), and Maslow's (1954) descriptions of authenticity. However, dimensions of both Gray's and Cloninger's domains account for only a small 5.7–18% of the shared variance in authenticity, suggesting that authenticity is related but distinct from Gray's and Cloninger's personality dimensions.

© 2011 Elsevier Ltd. All rights reserved.

1. Introduction

Authenticity has traditionally been considered important to well-being and social life (Bettencourt & Sheldon, 2001; Harter, Marold, Whitesell, & Cobb, 1996; Horney, 1951; Rogers, 1959; Wood et al., 2008; Yalom, 1980) but has been traditionally neglected by empirical research (Sheldon, 2004; Wood et al., 2008). Wood et al. present a tripartite model of authenticity, which comprises authentic-living (living in accordance with one's own values and beliefs), accepting external influences (the belief that one has to conform to the expectations of others), and self-alienation (feeling out of touch with the true-self). Authentic-living is indicative of high, and the latter two of low authenticity. Whilst Wood et al. found discriminant validity between authenticity and the Big Five (John & Srivastava, 1999), no previous research has explored the relationship between authenticity and other extant models of personality, such as Gray's (1982, 1985) behavioural approach/inhibition systems and Cloninger's psychobiological model (Cloninger et al., 1993). Correlations between authenticity and these extant personality models are expected as authenticity is conceptualised as a variable relating to well-being. However, authenticity should not be completely predicted by these models, as this would suggest that there is nothing unique about authenticity and it is simply a combination of several previously studied traits. The current paper tests the convergence and divergence of authenticity from the aspects of personality represented within Gray's and Cloninger's models of personality.

Gray's (1982, 1985) behavioural inhibition/approach model suggests that two regulatory systems underpin personality and predict well-being. The approach system regulates positive affect and goal pursuit. Whereas the inhibitory system regulates negative affect and withdrawal to avoid harm. The relationships between authenticity and inhibitory systems are predicted by counselling perspectives, which suggest that authenticity relates to well-being. For instance, Horney's (1945, 1951) descriptions of authenticity suggests that low authenticity is indicative of neurosis. Neurotic individuals respond to anxiety by engaging in submissive behaviours, or withdraw to avoid harm. These behaviours are reminiscent of Gray's inhibitory system emphasizing motivations for avoidance and sensitivity to danger. Previous research found that individuals who engaged in inhibitory behaviours to avoid confrontations reported lower levels of authenticity, self-esteem and more depression (Lopez & Rice, 2006; Neff & Harter, 2002a). The relationship between Gray's approach systems is also predicted by Horney. Horney suggests a positive relationship between low authenticity and dependence on rewards, such as affection/approval from others. Empirical evidence found that individuals who attempt to maintain an intimate relationship by agreeing to all their partner's needs, suffer from lower levels of well-being.
(Neff & Harter, 2002b; Tolman & Porche, 2000). Therefore when considering Horney’s descriptions of authenticity, higher levels of authenticity may reflect lower levels of reward-dependence.

Cloninger’s psychobiological model (Cloninger et al., 1993) predicts vulnerability to neuroticism and other mental and personality disorders. Cloninger’s model measures the ability to self-govern mental states, comprising inhibitory and novelty seeking behaviours that promote well-being. The relationship between authenticity and Cloninger’s model of well-being is again suggested by counselling perspectives on authenticity. For instance, Maslow (1954) emphasises authenticity as reflecting physiological and social drives to attain needs, requiring determination to maintain those needs. This is evidenced by Deci and Ryan (2000) and Sheldon (2002), who found correlations between authenticity, autonomy, and goal-directed behaviour. We explore the uniqueness and discriminant validity of the tripartite model of authenticity (Wood et al., 2008). According to Horney’s (1945, 1951), and Maslow’s (1954) accounts, authenticity is expected to correlate with the inhibitory domains such as BIS-anxiety, BIS-fear and harm-avoidance and with the approach domains of reward-dependence, persistence and self-direct. However authenticity should not be largely predicted by these variables, as this would undermine the uniqueness and discriminant validity of this new personality measure.

2. Method

2.1. Participants and procedure

Participants were 554 individuals (250 males, 304 females) from community centres within the East Midlands, U.K., aged 17–65 years (M = 31.4 years, SD = 11.5). Over 57% of the sample was White, with Asian being the next highest represented ethnicity (17.7%). Authenticity was measured via the Authenticity Scale (Wood et al., 2008). Respondents completed the 12-item scale to measure: Self-alienation (4 items, e.g., “I don’t know how I feel inside”), accepting external influences (4 items, e.g., “I usually do what other people tell me to do”), and authentic-living (4 items, e.g., “I always stand by what I believe in”). Items were rated from 1 (do not describe me at all) to 7 (describes me very well). The scale has 2 and 4 weeks test–retest reliabilities from r = .78 to .91.

Behavioural inhibition and approach was measured via the behavioural inhibition/activation scales (BIS/BAS, Carver & White, 1994). The BIS scale was split into two subscales of anxiety (4 items, e.g., “Criticism or scolding hurts me quite a bit”) and fear (3 items e.g., “I have very few fears compared to my friends”) to reflect different motivational tendencies (Heym, Ferguson, & Lawrence, 2008). Respondents also completed BAS subscales of fun-seeking (4 items, e.g., “I like to behave spontaneously”), drive (5 items, e.g., “Want to be in charge”) and reward-responsiveness (4 items, e.g., “get excited or happy for no apparent reason”). Items were rated from 1 (very inaccurate) to 5 (very accurate).

Cloninger’s Temperament and Character domains were measured via the international personality item pool (TCI-IPIP, Goldberg et al., 2006) consisting of 4 temperament domains: Novelty-seeking (34 items, measuring variety-seeking, recklessness, extravagance and rebelliousness), harm-avoidance (39 items, measuring neuroticism, harm-avoidance, social-discomfort and low self-efficacy), reward-dependence (40 items, measuring sentimentality, friendliness, self-disclosure and dependence), and persistence (39 items, measuring initiative, competence, achievement-striving and hard-working). The three character domains are self-directedness (48 items, measuring satisfaction, optimism, resourcefulness, self-accepting and impulse-control), cooperativeness (52 items, measuring tolerance, empathy, trust, compassion and morality), and self-transcendence (37 items, measuring imagination, romanticism, conservativism and femininity). Items were rated from 1 (very inaccurate) to 5 (very accurate). Internal consistencies are presented in Table 1.

3. Results

Descriptive statistics for scoring on the Authenticity Scale, BIS/BAS and TCI-IPIP scales are shown in Table 1. Table 2 shows Pearson’s correlations between all measures. Generally, correlations between the BIS/BAS and TCI-IPIP reflect proximity between the models; for example novelty-seeking, a temperament domain from the TCI-IPIP shares significant, strong correlations with BAS-fun-seeking, drive and reward. Whereas harm-avoidance from the TCI-IPIP demonstrate significant, strong correlations with BIS-anxiety and BIS-fear consistent with Mardaga and Hansenne (2007).

In terms of relationships between authenticity, Cloninger’s et al. (1993) and Gray’s (1982, 1985) models, a number of significant correlations occur. For instance, all three facets of authenticity correlated with TCI-IPIP domains of harm-avoidance, reward-dependence, self-direct, and self-transcendence, with the exception of persistence, which correlated with authentic-living, and self-alienation. Of the BIS/BAS domains, only BIS-anxiety and BIS-fear showed significant correlations with all three facets of authenticity.

Finally, a Stepwise multiple regression was conducted to examine to what extent Cloninger’s et al. (1993) and Gray’s (1982, 1985) models predicted authenticity. In the first step BIS/BAS dimensions were entered into the model. Results indicate that Gray’s dimensions weakly predict authenticity (F(1, 552) = 33.26, Adj. R² = .06, r = .24, p < .001) with only BIS-anxiety accounting for a small 5.7% of the variance in authenticity. Cloninger’s dimensions were entered in the second step. Results indicate that harm-avoidance, reward-dependence, self-direct, persistence and self-transcendence weakly predict authenticity (F(8, 545) = 14.94, Adj. R² = .18, r = .42, p < .001) accounting for only 18% of the variance in authenticity. The above findings support the discriminant validity of authenticity. Table 3 shows individual predictors.

<table>
<thead>
<tr>
<th>Measures</th>
<th>z</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authenticity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authentic-living</td>
<td>.71</td>
<td>19.57</td>
<td>4.84</td>
</tr>
<tr>
<td>External influences</td>
<td>.73</td>
<td>13.52</td>
<td>5.14</td>
</tr>
<tr>
<td>Self-alienation</td>
<td>.71</td>
<td>12.72</td>
<td>4.98</td>
</tr>
<tr>
<td>TCI-IPIP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novelty-seeking</td>
<td>.88</td>
<td>106.49</td>
<td>18.87</td>
</tr>
<tr>
<td>Harm-avoidance</td>
<td>.93</td>
<td>114.42</td>
<td>20.84</td>
</tr>
<tr>
<td>Reward-dependence</td>
<td>.89</td>
<td>114.50</td>
<td>20.84</td>
</tr>
<tr>
<td>Persistence</td>
<td>.86</td>
<td>109.68</td>
<td>18.00</td>
</tr>
<tr>
<td>Self-direct</td>
<td>.96</td>
<td>166.74</td>
<td>33.28</td>
</tr>
<tr>
<td>Cooperativeness</td>
<td>.96</td>
<td>174.79</td>
<td>38.11</td>
</tr>
<tr>
<td>Self-transcendence</td>
<td>.65</td>
<td>110.09</td>
<td>29.39</td>
</tr>
<tr>
<td>BIS/BAS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIS-anxiety</td>
<td>.67</td>
<td>9.96</td>
<td>2.88</td>
</tr>
<tr>
<td>BIS-fear</td>
<td>.65</td>
<td>7.61</td>
<td>2.23</td>
</tr>
<tr>
<td>BAS-fun-seeking</td>
<td>.77</td>
<td>10.48</td>
<td>2.41</td>
</tr>
<tr>
<td>BAS-drive</td>
<td>.74</td>
<td>10.48</td>
<td>2.49</td>
</tr>
<tr>
<td>BAS-reward-responsiveness</td>
<td>.63</td>
<td>13.05</td>
<td>1.92</td>
</tr>
</tbody>
</table>

Note: BIS = behavioural inhibition subscale; BAS = behavioural activation subscale; TCI-IPIP = international personality item pool measuring Cloninger’s temperament and character items.
4. Discussion

We present two sources of evidence to suggest that authenticity is a unique measure of personality and distinct from both Cloninger’s et al. (1993) and Gray’s (1982, 1985) model of personality. Firstly judging by the effect sizes (small, $r < .10$; medium, $r = .24$ to .36; large, $r > .37$, Cohen, 1977) any significant relationship between authenticity and the biological models range from small to medium with no correlation above $r = .20$. Secondly, the results from the multiple regression suggest that authenticity cannot be reduced to a linear combination of either Gray’s or Cloninger’s models, with Cloninger’s model accounting for only 18% and Gray’s model accounting for even smaller 5.7% of the variance in authenticity.

Both findings indicate that authenticity has distinct variance from Cloninger’s et al. (1993) and Gray’s (1982, 1985) models since the shared variance is no more than 5.7–18%. We report similar results to Wood et al. (2008), who demonstrate that authenticity shares 11–13% of the variance from the Big Five (John & Srivastava, 1999) and the honesty/humility subscale of the HEXACO personality inventory (Lee & Ashton, 2004).

Our findings reveal an overlap between authenticity and Cloninger’s et al. (1993) and Gray’s (1982, 1985) models consistent with theoretical speculations from Horney’s (1945, 1951) theory of motivation. Authenticity shares moderate correlations with BIS-anxiety, signifying BIS-anxiety as measuring worry about social comparison through criticism, scolding and failure. This measure of anxiety is associated with conflict, uncertainty and fear of negative evaluation. Findings are consistent with Heym et al. (2008) and reflect Horney’s speculations that neurotic individuals who are low in authenticity engage in self-protective behaviours of submissiveness or withdraw to avoid confrontations. Furthermore, higher levels of Authentic-living share a medium sized correlation with reward-dependence. This finding is consistent with Maslow’s (1954) view that self-actualised individuals are driven to attain rewards such as safety, security, love, belongingness, and self-esteem.

Our current findings suggest that although relationships exist between authenticity (Wood et al., 2008) and models presented by Cloninger et al. (1993) and Gray (1982, 1985), the tripartite model of authenticity is distinct and unique from both extant models of personality. Future exploration between the tripartite model of authenticity, approach and inhibitory behaviours may reveal value in unearthing these aspects.
References


