Theories of general personality and mental disorder*

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The title of this article subsumes two different issues that we wish to explore. First, what is the relationship between theories of personality and personality disorder? Second, what is the relationship between theories of personality and mental illness?

Relationship between theories of personality and personality disorder

Personality theories
The main personality theories are those of Cloninger (1987), Eysenck (1987), Costa & McCrae (1990) and Watson et al. (1994); and the circumflex models of Wiggins (1979) and Kiesler (1982), the latter being a circular arrangement of interpersonal dispositions around the orthogonal dimensions of dominance (v. submission) and nurturance (v. hostility). Broadly, the first four models encompass three main dimensions: neuroticism, extraversion and one (or more, depending on the specific theory) other dimension that is less well-defined. Neuroticism, or negative emotionality, represents a tendency to see the world as threatening; extraversion, or positive emotionality, is a tendency to engage and confront the world. The Neuroticism, Extraversion and Other – Five-Factor Inventory (NEO–FFI) is currently the most generally accepted dimensional model of personality and includes the following five factors: neuroticism, extraversion, openness, agreeableness and conscientiousness (Costa & McCrae, 1990).

Personality disorder
There are a number of difficulties in the reliability and validity of personality disorder classification (Zimmerman, 1994) together with problems of overlap between its different categories (Benjamin, 1993). The latter has identified as another major weakness the absence of any theory underpinning the personality disorder prototypes. General personality trait theory, as described above, could provide such a theoretical model so that the personality disorders within DSM are seen as being related to extreme variants of a continuous distribution of general personality traits.

Personality traits and personality disorders
There are surprisingly few studies that have examined the relationship between general personality traits and personality disorders. An exception is a study by Widiger et al. (1994), who investigated the relationship between the NEO–FFI and the DSM–III–R and DSM–IV. They found that most personality disorders had a strong association with agreeableness and that avoidant personality disorder was a combination of high neuroticism and low extraversion. Another investigation, by Mulder et al (1999), examined the relationship of Cloninger’s Temperament and Character Inventory (TCI) scale (of general personality) with DSM–III–R personality disorder (as assessed by the Structured Clinical Interview for DSM–IV Personality Disorders (SCID–II)). This found, as predicted, that high novelty-seeking was associated with Cluster B personality disorders, high harm-avoidance with Cluster C, and low reward-dependence and high harm-avoidance with Cluster A.

Relationship between personality theory and mental illness
Here DSM–III is a major advance, in that it separates Axis II conditions (i.e. personality disorder and learning difficulty) from Axis I conditions (i.e. the major mental illness syndromes). This separation of personality (trait-related) difficulties from mental syndromes (state-related) has not only led to important personality disorder research initiatives (Skodol, 1997) but has also encouraged an examination of the relationship between conditions on these two separate axes.

Relationship of personality vulnerability to mental illness
In an important conceptual article, Akiskal et al. (1983) described four ways in which personality vulnerability might be related to a mental illness (in their discussion, it was depressive disorder). They suggested that a vulnerable personality might cause the disorder (i.e. be pathogenic); affect the
course and outcome of the disorder (i.e. be patho-}

Neuroticism and depression

If we focus on major depression, neurot-

eism is seen as an attenuated form of the Axis I

We used a similar set of measures to the

METHOD

First study

We used a similar set of measures to the

RESULTS

First study

The mean age for the subjects examined was 28.3 years (s.d.=8.2 years), and their

Table 1 is a correlation matrix between the

Second study

We examined the relationship between

inventory (BDI; Beck et al, 1961), mea-

the number of subjects and multiple testing with a likelihood of spurious associations,

neuroticism and depressive symptoms in a

Table 1 is a correlation matrix between the

s20
personality in the NEO–FFI almost all showed negative correlations with the range of personality disorders investigated. The implications of these findings will be examined further in the Discussion.

**Second study**

There were 323 subjects in the trial and 263 (81%) completed the two questionnaires. The mean (s.d.) of their neuroticism and BDI scores were 15.5 (5.0) and 26.1 (8.2), respectively. As there were no differences in baseline or outcome data between the four different groups in the study (i.e. the two randomised and the two preference arms), we collapsed the data and analysed them as a single data-set.

The factor analysis showed that there were ten meaningful factors that accounted for 56% of the variance in those who were entered into the trial and completed the questionnaires (Table 2). The first factor consisted of BDI depressive (i.e. ‘state’) items. Factors 2–6 comprised neuroticism (‘trait’) items. Factor 2, accounting for 11% of the variance, comprised items 43, 23, 40, 14, and 28 of the neuroticism scale that related to ‘worry and guilt’. This replicated the finding in the earlier study identifying these traits as being a key component of neuroticism in those who were currently depressed.

Table 1 Correlation matrix of NEO–FFI and IPDE interview (DSM classification-dimensional scores)

<table>
<thead>
<tr>
<th>Personality disorder</th>
<th>Neuroticism</th>
<th>Extraversion</th>
<th>Openness</th>
<th>Agreeableness</th>
<th>Conscientiousness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paranoid</td>
<td>0.51**</td>
<td>-0.41**</td>
<td>-0.43**</td>
<td>-0.41**</td>
<td>-0.30*</td>
</tr>
<tr>
<td>Schizoid</td>
<td>-0.03</td>
<td>-0.35*</td>
<td>0.09</td>
<td>0.22</td>
<td>0.19</td>
</tr>
<tr>
<td>Schizotypal</td>
<td>0.14</td>
<td>-0.33*</td>
<td>-0.23</td>
<td>0.14</td>
<td>0.08</td>
</tr>
<tr>
<td>Antisocial</td>
<td>0.23</td>
<td>-0.02</td>
<td>-0.13</td>
<td>-0.12</td>
<td>-0.30*</td>
</tr>
<tr>
<td>Borderline</td>
<td>0.49**</td>
<td>-0.09</td>
<td>-0.29*</td>
<td>-0.13</td>
<td>-0.30*</td>
</tr>
<tr>
<td>Histrionic</td>
<td>0.24</td>
<td>-0.11</td>
<td>-0.38*</td>
<td>-0.14</td>
<td>0.08</td>
</tr>
<tr>
<td>Narcissistic</td>
<td>0.27</td>
<td>-0.13</td>
<td>-0.23</td>
<td>-0.25</td>
<td>-0.3</td>
</tr>
<tr>
<td>Avoidant</td>
<td>0.16</td>
<td>-0.36*</td>
<td>-0.22</td>
<td>-0.07</td>
<td>-0.05</td>
</tr>
<tr>
<td>Dependent</td>
<td>0.38*</td>
<td>-0.21</td>
<td>-0.45**</td>
<td>-0.25</td>
<td>-0.13</td>
</tr>
<tr>
<td>Compulsive</td>
<td>0.20</td>
<td>-0.35*</td>
<td>-0.24</td>
<td>0.00</td>
<td>-0.16</td>
</tr>
<tr>
<td>Passive-aggressive</td>
<td>0.30*</td>
<td>-0.16</td>
<td>-0.35*</td>
<td>-0.26</td>
<td>-0.24</td>
</tr>
<tr>
<td>Sadistic</td>
<td>0.20</td>
<td>-0.18</td>
<td>-0.18</td>
<td>-0.07</td>
<td>-0.45**</td>
</tr>
<tr>
<td>Self-defeating</td>
<td>0.48**</td>
<td>-0.10</td>
<td>0.15</td>
<td>-0.05</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (1-tailed), **Correlation is significant at the 0.01 level (1-tailed).

These results help illuminate a common clinical dilemma when one attempts to separate trait vulnerability from state in an individual who is depressed. The data suggest that it is possible to identify a subset of items that conform to Eysenck's original core construct of neuroticism (Eysenck & Eysenck, 1975) that is separate from the state of being depressed. Furthermore, we conjecture that it is these items, when elevated in a subject with current depression, that make such an individual vulnerable to a poor long-term course and hence that might be a marker to identify subjects that ought to be the target for longer-term maintenance treatment.

**DISCUSSION**

DSM-IV, with its biaxial subdivision of mental illness and personality disorder, is currently under review (Liversley, 2000). It has been suggested that this separation should be discontinued so that both mental illness and personality disorder are included in the same axis in future revisions of DSM (Liversley, 1998). Given our current state of knowledge, we believe that this integration is premature and that our gaze ought to remain bifocal. We argue that retaining this biaxial approach will focus attention on the relationship between conditions on these two axes that might otherwise be lost. A specific interest in personality, moreover, enriches one's understanding of mental illness. Millon & Frances (1987) put this position eloquently when they wrote justifying the biaxial approach adopted in DSM–III that ‘personality . . . was assigned a contextual role that made it fundamental to the understanding and interpretation of other psychopathologies'.

Costa & McCrae (1994), who were responsible for the development of the NEO–FFI, introduced a model of personality development that includes what they termed ‘basic tendencies’ and ‘characteristic adaptations’. ‘Basic tendencies’ refer to largely inherited dispositions or traits (similar to the elements in the NEO–FFI) that interact with the environment to produce ‘characteristic adaptations’. The latter conjunction involves elements that are relatively fixed (i.e. are characteristic) and others that are fluid (i.e. influenced by the environment).
‘Characteristic adaptations’ are therefore the material that mental health professionals deal with and that deserve our attention. We suggest that the findings from these two studies have two implications. The first concerns aetiology. This model suggests that a personality disorder or a mental illness might result from the interaction of a basic tendency (such as high neuroticism) with a less than optimal environment. Although some basic tendencies (such as a high neuroticism score) could render an individual more prone to a mental disorder, others (e.g. raised extraversion or openness) might exert an opposite effect and be protective. The first of our two studies offers some evidence in support of this view.

The second implication concerns prognosis. Given that the provision of services for those with mental disorder is predicated on the belief that limited resources ought to be targeted at those who most require them, the heterogeneity of mental disorders creates major problems for service planners. It is clear that further categorisation is necessary to identify those who might benefit from specific interventions. We believe that the combination of general personality theory with clinical theories of psychopathology, as shown in our second study, is one way in which more homogeneous entities might be identified. Features of neuroticism might identify, for instance, those individuals who are likely to have a poor long-term course and hence are worthy of special consideration. In addition, we believe that this conjunction would enrich both theoretical formulations and clinical practice.

REFERENCES


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