The relationship between the Defense Mechanisms Inventory and reported symptomatology in college females

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Summary—This study related defense mechanisms, as measured by the Defense Mechanisms Inventory, to the SCL-90-R and the MMPI. A total of 173 college female subjects participated. A canonical analysis of the defense variables with the symptom variables revealed two significant groupings. First, a clear introjecting defensive style was found to be related to high amounts of reported depression, anxiety, introversion, and global symptomatology. Second, a 'healthy' defense grouping was negatively related to the symptom variables. This second grouping also was positively influenced by scores on M-F. The results were interpreted as supporting a single symptomatic dimension on the DMI, as well as suggesting that greater androgyny is associated with more healthy defensive functioning.

The Defense Mechanisms Inventory (DMI; Gleser & Ihilevich, 1986) is an objective instrument designed to measure five commonly recognized psychodynamic defensive styles. First, Turning Against Object (TAO) has been described by Gleser and Ihilevich (1986) as a primitive defense that involves the direct or indirect expression of aggression. TAO is related theoretically to the classical defense of repression and also is conceptualized as masking internal conflicts that are too painful to confront consciously. Projection (PRO) is feelings of hostility or rejection that are attributed to others. Principalization (PRN), related to the classical defenses of intellectualization, rationalization, and isolation, is a defense that "falsifies reality by reinterpretting it through the use of a variety of general principles, expressed in the form of clichés, platitudes and different forms of sophistry" (p. 20). Turning Against Self (TAS) defensively protects oneself from negative experiences by constantly expecting the worst. TAS is an intrapunitive defense that manifests itself in autosadistic or masochistic pain and/or disappointment. Finally, Reversal (REV) is a defense which is related to the classical defenses of denial, negation, and reaction-formation.

Several studies have provided some initial support for the construct validity of the DMI (Cramer, 1986). For example, Labouvie-Vief, Hakim-Larson and Hobart (1987) found that REV and PRN were significantly related to more mature developmental variables (e.g. ego development and age). Based upon these data, Labouvie-Vief et al. (1987) suggested that REV may be more likely to represent the reflective, conscious choice of the subject rather than automatic denial and repression. Further, TAO has been found to be related empirically to defensive aggression, whereas TAS has been positively related to depression, suicide attempts, low Ego Strength, and low self-esteem (Cramer, 1986). On the other hand, PRO has failed to show any relation to other measures of projection, such as scale 6 on the MMPI.

Despite these findings, there has been little work on the construct validity of the DMI. Further, the existing research generally uses more over-simplified univariate methods that are unable to capture the complex theoretical underpinnings of the test. As the psychodynamic theory of defense mechanisms is a multivariate theory (i.e. each individual uses a unique conglomeration of all defenses) compatible multivariate methods will be used in the present study. A canonical correlation will be used to analyze the relationship between the DMI defense mechanisms and symptomatology. Basically, a canonical analysis simultaneously relates one cluster of variables (e.g. defensive styles) to a second cluster of variables (e.g. symptomatology). The procedure also shows how each individual variable correlates with the cluster. The advantage of a canonical correlation is that the overall relationship between defenses and symptoms will be examined (the linear combination from each set of variables is maximized).

METHOD

Female Ss (173) between the ages of 17 and 21 were recruited through the introductory psychology subject pool at Miami University. These Ss completed the Defense Mechanisms Inventory (DMI), the Global Severity Index (GSI) from the SCL-90-R, and the MMPI-168. The DMI is based on 10 incomplete stories that Ss complete by describing their most and least likely reactions. Each of the story completion choices offered represents one of the five defensive styles measured by the test. Scores on the DMI may range from 0 to 80 and are derived by summing the item rankings for each of the five defensive styles. The GSI may range from 0 to 4 and is the mean of the 90 items on the SCL-90-R.

RESULTS AND DISCUSSION

For the present canonical analysis, the five subscale scores on the DMI comprised the first set of variables, and GSI and the 10 clinical scales on the MMPI were the second set of canonical variables. The canonical correlation yielded two significant correlations between these data sets. Table 1 shows the individual variables and the squared correlation coefficients between the variables and the canonical variates, the corresponding canonical weights, and the canonical correlations. A correlation of 0.35 was used as a criterion for interpretation (Labouvie-Vief et al., 1987).

Table 1 shows that the first significant correlation was 0.50 (25% of the variance), F(50,665) = 1.90, P < 0.001. The DMI variables relevant for interpretation in the first canonical variate were TAS and (negatively) TAO. The first linear composite may be thought of, then, as an introjecting dimension. Relevant to this dimension were the symptom measures of social
introduction (Si), psychasthenia (Pt), the GSI, and Depression (D). This correlation implies that Ss who tended to rely upon introjecting defenses also tended to be socially introverted, were anxious, reported general symptoms, and were depressed.

The results from this first canonical variate are consistent with the psychoanalytic theory of depression (Fenichel, 1945). Introjecting defenses (TAS) positively contributed to a symptom picture similar to depression, whereas the presence of aggressive, externalizing defenses (TAO) were successfully inhibited. Although these results may be consistent with Juni’s (1987) suggestion that the DMI defenses consist of a single continuum (relating to the expression or inhibition of aggression), the existence of a second significant canonical variate suggests a second continuum or dimension. As a whole, these results support previous research, suggesting the existence of different adaptive levels of defensive functioning (Cramer, Blatt & Ford, 1988; Cramer, 1987).

The second significant canonical correlation, with the first canonical variate removed, was 0.39 (15% of the variance), $F(36,545) = 1.47$, $P < 0.05$, and involved the use of all defenses except TAS. Specifically, this second linear composite was composed of subjects who relied on the defenses of PRN and REV, but who did not rely on PRO and TAO. As PRN and REV have been found previously to be related empirically to more healthy functioning (i.e., Labouvie-Vief et al., 1987), and as PRO has been theoretically related to less healthy functioning, this dimension might be conceptualized as a healthy defense clustering. This conceptualization is supported by the negative direction of the correlations with the clinical symptom variables. The only exceptions to these negative correlations involved Hy ($r = 0.08$ or essentially unrelated) and M-F, which is not a symptom variable.

The finding that REV is associated with more healthy functioning is not consistent theoretically, as REV should be a more primitive defense. Perhaps Labouvie-Vief et al. (1987) are correct in suggesting that REV measures higher functioning conscious choice, rather than primitive unconscious repression. These results also question the construct validity of PRO, and is consistent with previous difficulties with this subscale (e.g., Cramer, 1986). The fact that PRO correlates highly in the second canonical defense combination is of interest. Although a high score on PRO may not be a valid measurement of classical projection, a low score may be associated with the absence of general psychopathology. Thus, PRO may not measure its intended construct, but may be somewhat indicative of overall functioning.

The M-F scale of the MMPI correlated positively and strongly to its linear composite, whereas all other significant symptom measures (GSI, Hs, and Pt) were negatively related. One interpretation might be that women who are less bound to traditionally defined feminine roles also use a more healthy cluster of defenses, and report fewer general symptoms, fewer physically related symptoms, and less anxiety. Such an interpretation is consistent with the findings of many sex-role researchers (e.g., Bem, 1975).

Other defensive clusters may be revealing of more specific forms of psychopathology (in addition to the findings from the first cluster). However, self-report measures such as the SCL-90-R and the MMPI may not be as sensitive to these forms of psychopathology. Part of the purpose of the DMI is to measure functioning that self-report and purely empirical scales are unable to represent. Thus, although these data support some overlap between the DMI and these self-report measures, they may not reveal the DMI’s unique contributions to measuring and understanding various forms of psychopathology. Further research could investigate this possibility by relating the DMI to non-self-report measures of personality functioning. A second limitation is that the high relation of internalizing defenses to reported symptoms may be unique to a college student population; who may, when developing psychopathology, rely more heavily on internalizing defenses. Replications of this study with a variety of clinical populations seem promising as certain clinical populations may use different defensive conglomerations in expressing their symptoms.

**REFERENCES**


