

Validating a Cognitive Slippage Scale:**MMPI Correlates, Defense Mechanism Preference, and Fantasy Behavior****Lynn M. Castrianno and Michael L. Raulin****State University of New York at Buffalo**

The validity of a newly developed Cognitive Slippage Scale was examined to determine its usefulness as an indicator of psychosis proneness. College subjects scoring high and in the normal range on the scale were given the MMPI, a defense mechanism scale, and questioned about their fantasies. High scoring subjects showed substantially elevated MMPI profiles and reported several differences in their fantasies compared to controls. No differences were found in defense mechanism preferences. These data suggest that the cognitive slippage scale may be a sensitive indicator of subtle psychopathology which may indicate a proneness to the development of psychosis.

Most theorists who study schizophrenia accept some form of a diathesis stress model for the etiology of the disorder. One widely quoted model was proposed by Paul Meehl (1962) who suggested that individuals at risk for schizophrenia inherit a neural integrative defect known as schizotaxia. He argued that the interaction of this defect with social learning processes led to the development of a particular personality organization (schizotypy). Meehl further proposes that only a portion of these schizotypes will decompensate to the point of becoming clinically schizophrenic.

Meehl hypothesized that schizotypy is characterized by several signs, one of which is cognitive slippage -- a mild form of thought disorder. Bleuler (1911/1950) considered cognitive slippage to be a primary symptom of schizophrenia, as did Arieti (1974). Until recently no measure of cognitive slippage suitable for screening purposes was available. Miers and Raulin (1985) recently developed a self-report measure which taps two areas of thinking disturbance: speech deficits and confused thinking. This scale showed significant correlations with other schizotypic signs and a characteristic pre-schizophrenic MMPI profile. These data support the validity of this scale for measuring a sign of schizotypy.

Fantasy. Fantasy is one of the many ways in which thought disorder may be manifested. Bleuler (1911/1950) noted that schizophrenia is usually accompanied by a predisposition to fantasy and flight from reality. In the present study it was assumed that the information collected about a subject's fantasy behavior would provide information about global thought processes.

Defense mechanism preference. In psychoanalytic theory, defense mechanism preferences are important indications of the level of functioning in the individual (Freud, 1926). Schueler, Herron, Poland and Schultz (1982) investigated defense mechanism preference in reactive and process schizophrenics using the Defense Mechanism Inventory (Gleser, Ihlebich, 1969). They found that reactives displayed a preference for the defense of turning against self and projection and that process schizophrenics displayed a preference for reversal which includes denial and reaction formation. Should schizotypes choose defenses similar to those chosen by schizophrenics in the Schueler et al. (1982)

study, this would provide further support for Meehl's theory.

Current study. The first goal of the current study was to replicate the findings of Miers and Raulin (1985) that the cognitive slippage scale would be positively correlated with other measures of schizotypic signs and would show the characteristic preschizophrenic profile on the MMPI. In addition, we hypothesized that the fantasy behavior of the schizotypes would be distinctively different from the control subjects -- specifically that they would report fantasizing more frequently, would report fantasies characterized by a higher portion of negative emotions and would report fantasies which were more unrealistic, grandiose, and bizarre than the control subjects. Finally, it was predicted that high scorers would display the defense mechanisms of turning against self, projection and reversal more frequently than controls.

Method

Subjects

Subjects were selected on the basis of their Cognitive Slippage scores. The scale was administered to introductory psychology students in a general testing session conducted at the beginning of the semester. Subjects scoring 1.7 standard deviations above the mean were designated experimental subjects (N=20). An equivalent number of control subjects were selected randomly from the subjects scoring below .5 standard deviations above the mean (N=22).

Procedure

All subjects were telephoned and invited to participate in a study entitled "personality characteristics". Out of a possible 90 subjects, 22 experimental and 26 control could not be contacted or were unable to participate. Throughout the entire procedure the experimenter was blind to the cognitive slippage scores of the individual. In the laboratory subjects were administered the following measures: the MMPI, the Defense Mechanism Inventory and the Fantasy questionnaire. Since all measures were self-report measures, subjects were usually tested in small groups (2-4).

Results

Replication. Internal consistency reliability was very high in the current sample (.87 for males and .90 for females). Table 1 presents the MMPI profiles for the experimental and control subjects while Table 2 presents the same breakdown for the schizotypy scale scores. All of these data were consistent with the original findings of Miers and Raulin (1985).

Fantasy behavior. Few differences were found between high scoring and low scoring subjects in the fantasies they reported. One notable exception was the degree of bizarreness in the category of best possible fantasy. The best possible fantasy of high scorers were rated as bizarre more often than for the low scorers, $X^2(2, N=39) = 7.25, p > .01$.

Defense mechanism preferences. There were no differences between the groups on the cluster of turning against self, projection, and reversal derived from the Defense Mechanism Inventory.

TABLE 1

MMPI Scores for High Scorers and Low Scorers on
the Cognitive Slippage Scale

Clinical Scales	Mean T-Scores		t	p
	Low Scorers	High Scorers		
Lie Scale	47	47	0	1.00
F Scale	57	69	-3.76	.001
K Scale	54	44	3.48	.002
(1) hypochondriasis	51	55	-1.22	.233
(2) depression	47	60	-3.65	.001
(3) hysteria	53	57	-.77	.448
(4) psychopathic deviance	56	66	-3.03	.006
(5) masculinity-femininity	55	64	1.71	.099
(6) paranoia	58	69	-2.79	.010
(7) psychasthenia	56	67	-3.78	.001
(8) schizophrenia	58	73	-3.81	.001
(9) mania	59	72	-2.03	.053
(0) social introversion	51	61	-3.18	.004

TABLE 2

Schizotypy Scores for High Scorers and Low Scorers
on the Cognitive Slippage Scale

	Mean Scores		t	p
	Low Scorers	High Scorers		
Rage	.36	2.5	-2.75	.009
Distrust	.41	4.1	-5.33	<.001
Physical Anhedonia	3.09	5.5	-2.60	.013
Social Fear	.64	3.05	-4.27	<.001
Somatic Symptoms	1.04	3.9	-5.36	<.001
Intense Ambivalence	.64	5.0	-5.98	<.001
Magical Ideation	1.5	3.9	-4.46	<.001
Perceptual Aberation	.50	3.25	-4.81	<.001

Discussion

The results of the present study replicate the findings of Miers and Raulin (1985) with respect to the initial validation of the cognitive slippage scale. The pattern of MMPI and schizotypy scale scores in particular support the construct validity of this scale.

No differences were reported between the groups in defense mechanism