# Intense Ambivalence: Its relationship to schizotypy and psychotic-like experiences.

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Currently, there is little doubt among investigators that certain types of schizophrenia are, to some degree, genetically transmitted. Over the past two decades, an impressive amount of family, twin, and adoption research has been compiled which supports the contribution of a genetic component in the development of the psychosis (Grove, 1982; Kessler, 1980).

Most genetic theories of schizophrenia postulate a genetic defect which predisposes individuals to psychotic deterioration. Kraepelin (1913), Hoch and his colleagues (Hoch and Polatin, 1949; Hoch and Cattel, 1959) and more recently, Paul Meehl (1962), have suggested that this genetic defect is manifested in the form of a particular personality organization. Meehl labels this personality organization schizotypy and it forms the central construct in his diathesis-stress model of schizophrenia. Meehl suggests that only a small number of schizotypes, perhaps 10%, would eventually decompensate into schizophrenia, while the majority would achieve some level of schizotypic adaptation.

Acknowledging Bleuler (1911/1950), Meehl (1962) hypothesized that these predisposed or "at risk" individuals develop four "schizotypal source traits": cognitive slippage, anhedonia, ambivalence and interpersonal aversiveness. Later, Meehl (1964) developed a checklist of 21 additional schizotypic "signs" or traits on the basis of his own and others clinical observation.

## Operationalization of the Construct of Schizotypy

Chapman, Chapman, Raulin and Edell (1978) have proposed a behavioral

high risk paradigm which is based on Meehl's (1962, 1964) diathesis-stress model. In this approach, subjects are selected on the basis of behavioral symptoms. The initial step in this process is the development of reliable and valid indicators of schizotypy.

Several self-report measures have already been developed to measure certain schizotypal characteristics including Physical and Social Anhedonia (Chapman, Chapman & Raulin, 1976), Perceptual Aberration (Chapman, Chapman & Raulin, 1978), Magical Ideation (Eckblad & Chapman, 1983), Intense Ambivalence (Raulin, 1984) and Somatic Symptoms. The usual paradigm is to select subjects who score high on one or more of these scales and compare their performance on clinically relevant measuires with a suitable control sample. This first slide illustrates the selection criteria. Most of the scales show a slight positive skew. Subjects are designated experimental if they score two standard deviations above the mean. Because of the slight skew, this represents about 5% of the sample. Control subjects must score no higher than one half of a standard deviation above the mean.

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Initial work with this paradigm suggests that the scales do identify individuals in college and clinic populations who demonstrate more psychological dysfunction than control groups from the same population.

The present project is one in a series of studies designed to investigate further the construct validity of the Intense Ambivalence Scale (Raulin, 1984). A structured clinical interview was used to gather information from college students who score high on the Intense Ambivalenc Scale. It was expected that these ambivalent subjects will report other traits and experiences that are hypothesized to be characteristic of the

psychosis-prone individual.

## Method

### Subjects

Subjects were 42 college students (25 females and 17 males) selected on the basis of their response to the Intense Ambivalence Scale. As suggested earlier, experimental subjects (N=20) scored at least two standard deviations above the mean while control subjects (N=22) scored no higher than one half of a standard deviation above the mean. Subjects were also given screening versions of the Physical Anhedonia (Chapman et. al., 1976), Perceptual Aberration (Chapman et. al, 1978) and Somatic Symptoms scales, although these scales were not used in the subject selection process.

### Procedure

Each subject was given a detailed clinical interview. All interviewing and scoring of the interviews were done blindly. A specially constructed structured interview was developed for this study which focused on the subject's social functioning, distractibility, interpersonal relationships, academic interests and concerns, and familial relationships. In addition, several symptoms characterized by Meehl (1964) to be signs of schizotypy were evaluated including cognitive slippage, "different from others" feeling, distrust, pan-anxiety and rage. A section of Spitzer and Endicott's (1977) SADS-L was included to gather information on psychotic experiences. This section provided material for rating each subject on six continua of psychotic and psychotic-like experiences (Chapman & Chapman, 1980). Finally, questions dealing with previous drug experiences were included to avoid inappropriate scoring of psychotic experiences. The interview took form 45 to 90 minutes to complete and all interviews were

tape recorded for later scoring.

## Results

There were no significant differences between groups on any of the demographic variables assessed. No sex differences were found and therefore, all subsequent analyses were collapsed across sex.

### Clinical characteristics analyses

In summary, there was strong support for the hypotheses that ambivalent subjects would show more cognitive slippage, distractibility, pan-anxiety, distrust, "different from others" feelings, and disruption of family relationships. There was some support for the predictions that ambivalent subjects would show more rage and disruption of social functioning. However, no support was found for predictions of greater academic dysfunction or more deviant body experiences in ambivalent subjects. Half of the 54 tests of the hypotheses were statistically significant and over 90% were in the predicted direction.

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### Psychotic and Psychotic-like Experiences

This slide presents the data from the psychotic and psychotic-like experiences section of the interview. The only significant difference between groups was on voice experiences (auditory hallucinations), $t(40) = 2.40$, $p < .04$, although the ambivalent subjects exceeded the control subjects on mean deviancy scores on symptoms of transmission of thoughts, withdrawal of thoughts, passivity experiences and aberrant personal beliefs. Ambivalent subjects also scored significantly higher than controls, $t(40) = p < .05$, on the total psychotic symptom score. None of the subjects, ambivalent or control, reported any true psychotic symptoms.

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Relationship to other Schizotypy Scales

The number of ambivalent subjects who scored two standard deviations or more above the mean on Physical Anhedonia, Perceptual Aberration and Somatic Symptoms was two, seven and eight, respectively. None of the control subjects scored in this range on any of these scales. A Fisher's Exact Test indicates significant differences ($p < .05$) between the groups on Perceptual Aberration and Somatic Symptoms.

## Discussion

The results of this study indicate that subjects who score high on the Intense Ambivalence Scale report a number of other schizotypic signs including cognitive slippage, pan-anxiety, anger/rage, a "different from others" feeling and distrust significantly more often than control subjects. These findings are consistent with the hypothesis that intense ambivalence is itself a schizotypic sign and that the Intense Ambivalence Scale identifies individuals who may be at risk for the development of psychosis.

There were no differences reported between ambivalent and control subjects on their level of social interest and activity. In that respect, ambivalent subjects are similar to perceptual aberrators but distinctly dissimilar from anhedonics who report social isolation and little heterosexual interest (Chapman et al., 1980). However, some interesting differences in social behavior between ambivalent and control subjects did emerge. Ambivalent subjects reported having difficulty finding friends with the same interests, maintained distrustful feelings and described

themselves as "loners" significantly more often than controls. They also reported that the time they spend alone feels "long" which may suggest that being alone is somewhat uncomfortable for these individuals. This conclusion is supported by the finding that the ambivalent subjects reported having the experience of wanting to be with others all the time significantly more often than the control subjects. These findings suggest that although ambivalent individuals are characteristically distrustful of social relationships and experience them as difficult to establish, they also find it very difficult to be alone.

In sharp contrast to the control subjects, ambivalent individuals consistently report that they are easily distracted and have difficulty concentrating. Overall, the ambivalent subjects reported more signs of cognitive confusion. These findings suggest that cognitive slippage is a particularly salient trait of the ambivalent individual. Interestingly, ambivalent subjects report experiencing cognitive confusion more often when they are alone. This conflicts with the prediction made by DePalma and Raulin (1982) that cognitive confusion should increase for schizotypic individuals when they are in social situations. The present data suggest that for ambivalent individuals, the social situation serves to minimize the frequency and intensity of their cognitive slippage symptomatology. Thus, the presence of others may serve a cognitive stabilizing function for these individuals. It may well be that much of the ambivalence these subjects report results from the conflict between the aversive experiences (distrustfulness) associated with social relationships and the stabilizing effect of those relationships. Of course this explanation is highly speculative and alternative interpretations of the current data are possible. However, this speculation does lead to several testable hypotheses which warrant further research.

The present study does not provide strong support for the hypothesis that ambivalent individuals experience a greater number of psychotic or psychotic-like symptoms than controls. The total mean rating of psychotic-like experiences across the six categories was significantly greater for the ambivalent subjects relative to controls. However, considering the categories individually, only one category (voice experiences) significantly differentiated the groups. A similar interview was adequate for identifying such psychotic-like symptoms in perceptual aberrators (Chapman, Edell, & Chapman, 1980) and subjects scoring high on a scale of magical ideation (Eckblad & Chapman, 1983). Therefore, the most reasonable conclusion to draw is that ambivalent subjects show less overt psychotic processes than subjects identified by some of the other available schizotypy scales.

This is one of several recently conducted studies of the characteristics of subjects who report intense levels of ambivalence. Although many people have commented on the importance of ambivalence in the understanding of schizophrenic pathology (Bleuler, 1911/1950; Fromm-Reichmann, 1954; Haley, 1959; Meehl, 1962), few have attempted any serious study of the question and no one previously tried to develop a standardized measure of ambivalence. The current data support efforts to expand this line of research further. The construct validation of the concept of schizotypy as defined by Meehl (1962, 1964) has been progressing rapidly over the last few years. The behavioral high risk design has proven a valuable paradigm for the study of subjects hypothesized to be "at risk" for schizophrenia. In time, this course of study should lead to a better understanding of the psychotic process.

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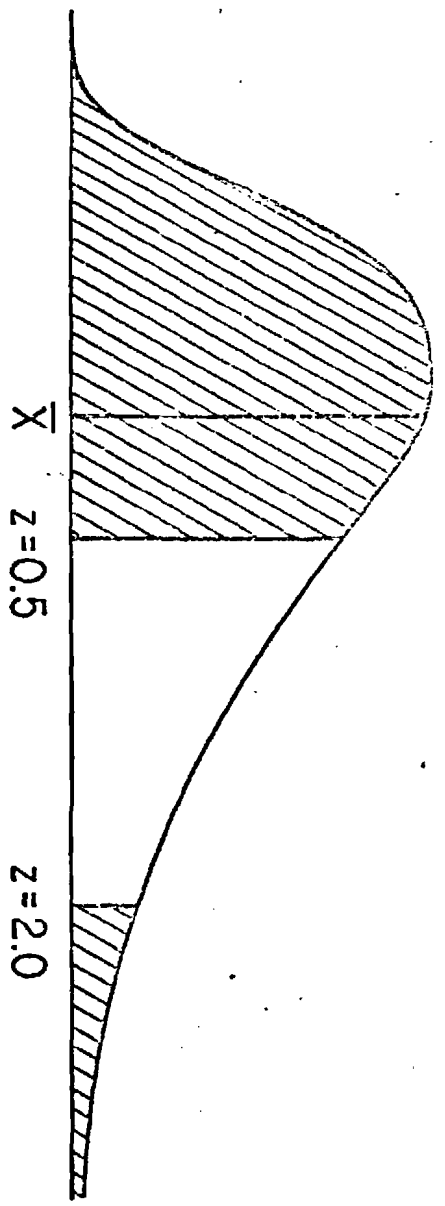


Typical Selection Criteria
Schizotypy Study

Slide 2

Significant differences between Ambivalent and Control Subjects on measures of Clinical Characteristics.

| CLINICAL CHARACTERISTICS (# sig. out of # of tests) | p value |
|---|---|
| COGNITIVE SLIPPAGE (3 of 4) | |
| scrambled thought when alone | .02 |
| experience being alone as lasting longer | .02 |
| overall rating of cognitive functioning | .01 |
| DISTRACTIBILITY (6 of 8) | |
| greater difficulty in concentrating | .01 |
| more difficulty in focusing attention | .01 |
| mind jumping from one thought to another | .05 |
| easily distracted by surroundings | .05 |
| distracted by sights and sounds | .05 |
| lose interest more easily | .01 |
| PAN-ANXIETY (2 of 2) | |
| feeling anxious | .01 |
| having difficulty relaxing | .04 |
| ANGER/RAGE (2 of 9) | |
| getting angry easily as a child | .02 |
| being easily irritated | .005 |
| "DIFFERENT FROM OTHERS" FEELING (3 of 4) | |
| among those who felt different, felt others could easily tell more often | .03 |
| felt interests were unusual | .03 |
| finding friends with same interests hard | .01 |
| DISTRUST (3 of 5) | |
| felt people behaved more friendly than they really were | .05 |
| felt the need to "test" others | .005 |
| overall rating of distrust | .001 |
| ACADEMIC FUNCTIONING (0 of 2) | |
| SOCIAL FUNCTIONING (4 of 10) | |
| described themselves as loners more | .001 |
| described themselves as independent less | .04 |
| time "alone" felt longer | .001 |
| want to be with others all the time | .05 |
| FAMILY RELATIONSHIPS (4 of 5) | |
| got along more poorly with mother | .01 |
| got along more poorly with father | .05 |
| contradicted themselves about mother more | .03 |
| contradicted themselves about father more | .01 |
| DEVIANT BODY EXPERIENCES (0 of 5) | |

Slide 3

Frequency of Psychotic-like and Psychotic Symptoms in Ambivalent and Control Subjects

| | Ambivalent Subjects (N=20) | | Control Subjects (N=22) | | |
|---|---|---|---|---|---|
| Symptom | Mean | % deviant | Mean | % deviant | p |
| Transmission of Thoughts | 1.95 | 45% | 1.63 | 41% | .64 |
| Passivity Experiences | 2.00 | 50% | 1.18 | 27% | .08 |
| Withdrawal of Thoughts | 0.35 | 10% | 0.23 | 9% | .62 |
| Voice Experiences | 2.00 | 50% | 0.68 | 9% | .04 |
| Aberrant Beliefs | 1.15 | 30% | 0.50 | 9% | .20 |
| Visual Experiences | 0.00 | 0% | 0.09 | 5% | .33 |

Notes: Deviant is defined as a score of 2 or higher on the Chapman & Chapman (1980) rating scales.