

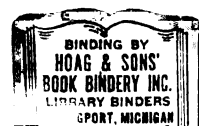


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THE EFFECTS OF HIGH AND AVERAGE
PROBLEM ADMISSION ON THE CONTENT
OF FREE VERBALIZATIONS

Thesis for the Degree of M. A.
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THESIS



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ABSTRACT

THE EFFECTS OF HIGH AND AVERAGE PROBLEM ADMISSION ON THE CONTENT OF FREE VERBALIZATIONS

by Benjamin Beit-Hallahmi

This study investigated verbal behavior in an unstructured situation, with special reference to defensive patterns and self exposure. The independent variable in this study was the readiness to admit having personal problems, as measured by the number of problems checked on the Mooney Problem Check List. The dependent variable was the S's behavior in three free verbalization sessions, of 20 minutes duration each. One hundred ninety-eight male students in General Psychology 151 classes took the MPCL. Those in top 15% of the distribution and those in the middle 15% were asked to participate in free verbalization sessions. Eleven of the High Problem Admitters (HPA) and nine of the Average Problem Admitters (APA) completed three sessions of free verbalization under the following conditions: The S had to spend 20 minutes at a time alone in an undecorated 10 x 10 room, instructed to talk to a microphone about "anything at all," with the knowledge that E is going to listen to the recording. The

free verbalization recordings were scored on ten formal categories.

It was predicted that the ambiguity and lack of reinforcement in the situation would arouse anxiety in the Ss and that the HPA would be more anxious than the APA.

Accordingly, it was predicted that the HPA group will show more defensive behavior and less readiness for self exposure. The results gave little support to the original predictions, since the difference between the two groups was found to be significant only on one out of ten categories.

The following explanations for the lack of clear-cut results were suggested:

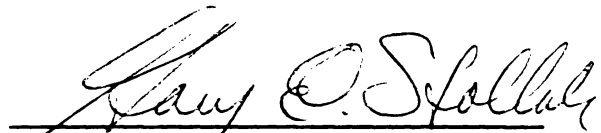
1) The situation failed to arouse the Ss' anxiety, because of the permissive atmosphere and the small number of sessions.

2) Talking on an impersonal level was the characteristic reaction of college students to the impersonal situation.

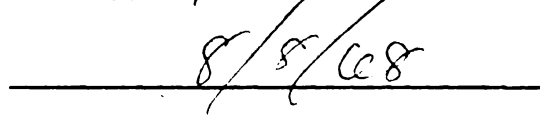
3) The number of Ss was too small.

An unexpected finding was the high degree of consistency in the Ss' behavior over the three sessions.

Approved:


Committee Chairman

Date:



THE EFFECTS OF HIGH AND AVERAGE PROBLEM
ADMISSION ON THE CONTENT OF FREE
VERBALIZATIONS

By

Benjamin Beit-Hallahmi

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I. INTRODUCTION

Review of the Literature

I. Psychoanalytic studies of free association.

In an article describing the psychoanalytic method, Freud (1904) discussed "free association" as the basis and the essence of his method: The patient lies on a couch; the analyst is behind him. In Freud's words, the patient "is spared every muscular exertion and every distracting sensory impression" (p. 266) and then is asked to follow the "basic rule," "to relate everything that passes through" his mind (p. 267).

Though widely used in therapy, the process of free association has been little studied or analyzed outside the analyst's office. A comprehensive review of the literature reveals the following studies.

Temerlin (1956) had patients rated by their therapists as good or poor free associators and correlated the ratings with the performances on an autokinetic experiment. The good free associators, who were supposed to be more flexible, actually were more variable in judging the extent of autokinetic movement on successive trials, thus supporting his hypothesis.

Schneider (1953) found a correlation between Rorschach balance indexes and free association behavior in therapy, also as rated by the therapist. Since the therapist in this study had access to the Rorschach records, this finding is a little less than convincing.

Bordin (1966a, 1966b) tried to create an experimental analogue of the psychoanalytic situation by having subjects free-associate in the presence of a completely passive E.

Relating personality characteristics, as measured by a variety of psychological tests, to the Ss response to the free association task, rated on scales of Involvement, Spontaneity and Freedom, Bordin (1966b), found the following discriminating characteristics:

1. Rorschach R, Sex, F%, H and Hd scores.
2. Perception of reversible figures.

This paucity of findings in Bordin's study is somewhat disappointing, in view of the large number of measures studied and the considerable sophistication in the use of statistical techniques. Bordin's major conclusion from this study was that the free association task is similar in nature to the task of the S in a projective technique like the Rorschach.

Colby (1960) studied the effects of the therapist's presence or absence on Ss' free association, in another form of an experimental analogue to the psychoanalytic

situation. He found that the therapist's presence was related to more references to persons in the Ss' verbalization, while in his absence there were more references to objects.

Dimascio and Brooks (1961) and Lowinger and Huston (1955) reported case studies that showed that free association behavior and transference behavior, which had been thought possible only in the traditional psychoanalytic setting, were actually manifested in the therapist's absence.

II. Autoanalytic studies.

Guerney and Stollak (1966) coined the term "autoanalysis" to describe the following situation: The subject is alone in a room, seated in a comfortable chair, and instructed to "think aloud" into a microphone, with the obvious knowledge that the experimenter is going to listen to his thoughts via the recordings made of his verbalizations.

The two most important differences between autoanalysis and psychoanalytic free association are:

1. The absence of a therapist.
2. The S is given a frame of reference, calling him to concentrate on feelings and interpersonal relationships, and sometimes even suggesting specific topics.

Studies of autoanalysis, mainly as a simulation of psychotherapy, were done by Foley (1966) and Steinberg

(1966). In these studies the verbalizations by the Ss were directed, by giving them a list of topics for discussion before each autoanalytic session.

Stollak and Guerney (1964) found autoanalysis to be a "promising" therapeutic technique, enabling them to reach juvenile delinquents, who would not enter voluntarily into an interpersonal relationship with a therapist or other "authority" figures. In this case the impersonal nature of the situation proved to be an asset.

In a study most similar in method and theoretical background to the present one (Stollak et al., 1967), the effects of self-ideal-self discrepancy on the content of free verbalizations were studied. Two groups, one of Ss having high self-ideal-self discrepancy (SISD) and the other of Ss having low SISD, as measured by the Leary Interpersonal Check List (Leary, 1957), were compared on ten categories, some of them similar to those used in the present study.

As compared to high SISD Ss, low SISD Ss talked significantly more, made more direct references to the experimental situation, and used the present tense more in their free verbalizations.

In this study, Ss with low SISD were considered more "healthy" psychologically, and the findings were viewed as supporting the speculations originating in Rogers' (1961) conceptualization of changes in the process of therapy.

III. Other related studies of free verbalization.

Weintraub and Aronson (1962) studied patterns of defensive speech in 10 minute samples of free verbalization, with E present. A defensive pattern of speech was claimed to be characterized by the following categories of analysis: non-personal topics, direct references to the experimental situation, quantity of speech when used together with "qualifiers" and "retractors" and shift to past tense.

Martin, Lundy and Lewin (1960), in a study on the effects of therapist communication in a simulated therapy situation, had one group of Ss instructed to talk to a tape recorder, imagining that they actually were in psychotherapy.

Over five sessions, the Ss in the group showed a rise in anxiety, as measured by GSR, accompanied by avoidance of "emotionally important content." The authors describe this finding as suppressive behavior accompanied by anxiety.

IV. Studies of the Mooney Problem Check List

Singer & Stefflre (1957) correlated scores on the Guilford-Zimmerman Temperament Survey with the number of problems checked on the MPCL. On the basis of these correlations, they describe high problem admitters as tending

to be withdrawn, unsociable, emotionally unstable, subjective, less friendly and less cooperative. They suggest that a high score on the MPCL may indicate basic adjustment problems in the individual.

Hammes (1959) compared the MPCL scores of Ss who scored high and those who scored low on the Heineman Forced-Choice Anxiety Scale. High anxiety Ss, according to the Heineman Scale were also significantly higher in the number of problems checked on the MPCL.

Barnett & Tarver (1959) compared the MPCL scores of delinquent and non-delinquent girls. The delinquent girls were significantly higher on the number of problems checked.

Heller (1966) found significant differences between high problem admitters and low problem admitters on the MPCL in a simulated therapeutic interview situation. In this situation, high problem admitters emitted the greatest number of self references and problem statement when confronted by ambiguous evaluation by interviewers.

Mooney & Gordon (1950), on the basis of their experience with the MPCL, claimed that students whose total number of problems checked is in the upper 25% of the local distribution are likely candidates for counseling.

Gordon (1950) found that a direct relationship exists between the number of problems marked and the desire for counseling; all of the students in his sample

in the upper 10% in number of problems marked desired counseling and the majority in the upper 25% desired it.

A Conceptualization of the Free Verbalization Process

"Free association is a process characterized by keeping situational pressures at a minimum in order to maximize the patient's or subject's response to the flow of his ideas, images, bodily sensations and affects" (Bordin 1966b, p. 30). Bellak (1961) and Rapaport (1958) suggested that obsessives are better able to deal with the adaptive and synthesizing aspects of free association and will be more bound to external stimuli, while hysteric and schizophrenic patients will be more able to respond in the regressive phase and, especially schizophrenics, are more bound by internal stimuli.

This differentiation of broad diagnostic categories was of little help, since the present study dealt with "normal" Ss outside the therapy situation. However, viewing references to external stimuli as a defensive reaction was supported by the Weintraub and Aronson (1962) study.

Leaving aside, for the moment, notions derived from psychotherapy, let us try to assess the basic characteristics of the free verbalization task, especially as perceived by the S. The task, as defined in the present study, follows the description of autoanalysis presented above with one important exception: the instructions are to talk

about "anything at all." The main quality of this situation for the S is its ambiguity, or lack of structure.

What would be the effect of this ambiguity on the S in the situation? From the literature it seems clear that ambiguity in a situation tends to arouse anxiety.

Ambiguity has been found to increase anxiety in a clinical interview (Dibner, 1958), in a group setting (Smith, 1957) and in the context of a psychological experiment (Dittes and Zemach, 1964). That ambiguity increases anxiety has never been really disputed, even by the proponents of its use in psychotherapy.

Let us take one step further and try to predict what would be the S's basic problem in this fulfilling the demands of this most unstructured "projective" test (Abt and Bellak, 1950).

Judging on the basis of clinically oriented literature, we would suggest that the basic problem would be talking, or basically responding to the task. Dollard and Miller (1950) say: "Talking, talking while anxious is the 'patient's work' . . . else the patient will remain silent or hit upon lines of sentences which do not produce anxiety" (p. 245). Similarly, in the free verbalization situation, the S's task is to talk, as he is asked, "about anything at all" despite his anxiety in this situation: either becoming silent or talking about "neutral" topics (direct references to the situation or non-personal

references, as suggested by Weintraub and Aronson, 1962).

The findings of the study by Martin, Lundy and Lewin (1960), quoted above, are especially significant in this context, since it showed that:

a) The autoanalytic situation caused a rise in anxiety.

b) This anxiety was accompanied by avoiding "sensitive" topics.

An important characteristic of the situation, sometimes neglected in free verbalization studies, is that this situation is basically interpersonal, even when the S is asked to verbalize when he is alone, since he knows that somebody is going to listen to the recordings. Actually, the S is not talking to himself. He is talking to us, and we should keep it in mind. The fact that the situation is interpersonal is evident in the large number of personal references to the absent experimenter, noted by Stollak and Guerney (1964) and in the Lowinger and Huston (1955) study. The unique feature of this form of interpersonal communication is the complete lack of reinforcement or feedback on the part of the listener. This feature, no doubt, can contribute to the S's anxiety in the situation.

To summarize, the free verbalization situation is characterized by its anxiety arousing qualities, which are

a) Ambiguity.

b) Absence of any feedback or reinforcement.

Under these conditions, we would expect two basic problems for the Ss:

1) How to keep talking while anxious.

2) The content of his verbalization; talking on personal or impersonal topics.

Theoretical background of predictions.

Rogers' (1961) description of a process conception of psychotherapy was the source of our predictions regarding the differences in behavior between the two groups, in the experimental situation.

Rogers describes changes in the client in psychotherapy as occurring along six dimensions:

1) In relationship to feelings.

2) In the manner of experiencing.

3) In personal constructs.

4) In communication of self.

5) In relationship to problems.

6) In interpersonal relations.

If we take the first dimension, for example, Rogers states that at one extreme the person disowns his feelings, and does not recognize them as being related to the self. At the other extreme, the person experiences a continually changing flow of feelings, and he is freely and acceptantly "living them."

Although Rogers was interested in the changes along these dimensions, brought about by psychotherapy, we assumed, for the purpose of this study, that behaviors at each end of these dimensions are characteristic behaviors of psychologically more "healthy" and less "healthy" individuals.

Using the first five out of the six dimensions proposed by Rogers we can derive empirical predictions concerning the behavior of more "healthy" individuals in the free association situation. We would predict that those persons will:

1. discuss more positive and negative feelings,
2. refer more to present life situations,
3. refer more to themselves and less to others, objects or to non-personal experiences,
4. be more ready to discuss problems,
5. be more certain and less qualified in their speech, and
6. have fewer silence periods compared with a group of less "healthy" persons.

In the present study, Ss whose scores on the Mooney Problem Check List were in the middle range, around the mean of the MSU group were regarded as more "healthy," and these predictions were applied to them.

Ss with scores on the Mooney Problem Check List in the top fifteen percent of the distribution were

considered less "healthy," and served as the comparison group. It was expected that the anxiety arousing qualities of the experimental situation, as discussed above, would affect the High Problem Admitters and bring about more defensive behavior.

The findings of the study by Stollak et al. (1967), reported above, were regarded as supporting the use of Rogers' theoretical framework in the present study.

II. METHOD

Subjects

The 20 Ss who took part in the free association sessions were selected from among 198 male students in General Psychology 151, Spring term, 1967, who were administered the Mooney Problem Check List in their classes.

The Mooney Problem Check List

The Mooney Problem Check List (College Form) is a list of 330 potential problems, out of which the subject is asked to check the items that correspond to his actual problems (see Appendix I). As one of the reviewers of this instrument has noted (Burgess, 1966): "The MPCL does not pretend to be a measuring device . . . there is no mystery here, only a straightforward list of problems and an obvious approach which leaves the counselee free to communicate to the extent of his readiness to do so" (p. 318). What Burgess implies here is that actually the MPCL does not measure "problems" (there are very few validation studies), but may be measuring the readiness to admit problems.

Selection Procedure

On the basis of the MPCL we computed one score: the total number of problems checked.

The following criteria were used in selecting the Ss for the two groups:

Mooney Problem Checklist

Group 1: (Average problem admitters.) Ss for this group were selected from among those whose scores were between the 45th and 60th percentiles of the distribution.

Group 2: (High problem admitters.) Ss for this group were selected from among those scores were in the 85th to the 99th percentile range of the distribution. In using the MPCL scores we used the middle and the top groups in the distribution, rather than the top and the bottom groups, since we regarded those admitting a small number of problems as no less deviant than those in the top group. A student checking three problems on the MPCL, out of the possible 330, cannot be considered problem-free, but probably defensive, when the group average is around 40 problems checked.

Appendix II includes the means and standard deviations of the Mooney scores distribution. On the basis of these distributions and following the criteria that we had set before, two groups of 30 students each were selected. We expected problems in getting students to volunteer for such a procedure, which involved eight sessions, and so

we selected 60 students, among whom we hoped to find 20 volunteers, 10 for each group.

Throughout the selection process students were being identified by student number and not by name, in order to avoid any later recognition of a subject as belonging to the High Problem Admitters group (HPA) or the Average Problem Admitters (APA) by the experimenters, who were to meet him before each session. The list of 60 student numbers was given to a faculty member, who returned a list of 60 names. These 60 students were contacted by mail, and asked to participate, with "research credit" as the main incentive (See Appendix III for recruiting letter).

Eleven students from the High Problem Admitters (HPA) group and nine students from the Average Problem Admitters (APA) group responded positively to the recruiting letter and completed at least three sessions of the free verbalization procedure.

Table 1 lists means and standard deviations of the Mooney Problem Check List scores for the two groups.

Table 1.--Means and standard deviations of the Mooney scores for the two groups.

Group	Mean	S. Deviation
APA	37.4	1.3
HPA	83.8	14.8

The median age for Ss in the HPA group was 19 years and 6 months, and for Ss in the APA group 19 years and 3 months.

Through a research project conducted by Dr. Paul Bakan and using some of the same Ss, we were able to obtain Extraversion and Neuroticism scores for 12 out of our 20 Ss, 6 out of each group. Though the data are incomplete, the trend, as shown in Table 2, is clear.

Table 2.--Maudsley Extraversion and Neuroticism scores for 6 Ss of each group.

	HPA N = 6		APA N = 6		t	Significance
	Mean	S. Devi- tion	Mean	S. Devi- tion		
Extraversion	4.16	1.36	5.16	1.07	1.29	NS
Neuroticism	3.66	1.50	1.16	0.40	3.60	p<.005

The six Ss from the APA group are a little higher on Extraversion, while the six Ss from the HPA group are much higher on Neuroticism. The last difference is statistically significant. We can see these data as partially supporting our notion of the HPA group as being more "deviant."

Setting

The sessions took place in a small (10 x 10) undecorated, soundproof windowless room. The furniture in

the room included a small table, a cardboard box, and a comfortable aluminum and saran cord lounge chair in which the S could sit in a reclining position, almost lying down on his back. This reclining position was chosen to minimize discomfort and facilitate free expression (Berdach and Bakan, 1967). An ash tray was provided for the S's use. The tape-recorder used to record the free verbalizations was kept outside the room and operated by the experimenter. The microphone was tied to a string running around the S's neck and was placed on his chest, thus minimizing discomfort.

Procedure

The S was met outside the experimental room and led in by the E. After being comfortably seated, with the microphone hanging near the S's chest, the instructions (see Appendix IV) were read by the E. The essence of the instructions was the suggestion to "say aloud whatever comes to your mind." After reading the instructions the E left the room and after closing the door turned on the tape recorder and knocked on the door, as the signal for S to begin. The session lasted for 20 minutes and at the end of this period E knocked on the door again and then entered the room. Each S had eight sessions of 20 minutes each, but only the first three sessions (60 minutes of talking time) were analyzed for the purposes of this study.

Contact between Ss and Es was kept minimal and formal, to avoid any influence or inadvertent reinforcement. The answer to all questions about the purpose of experiment was that the purpose was just what was stated in the instructions. The Es had no knowledge of the S's classification as an APA or a HPA.

Coding

On the basis of the tape recordings made of the Ss verbal productions, these productions were coded in the following way: the 60 minutes of recorded talking time were divided into 240 intervals of 15 seconds each. Each 15 seconds interval was scored for the categories listed below. In any interval (except when Silence was scored) more than one category could be scored but any category could be scored only once in any given interval.

The two coders were unaware of the classification of a S as an APA or a HPA.

Categories

The following categories were used in coding the recordings:

1. Expression of positive feelings.
2. Expression of negative feelings.
3. Discussion of others.
4. Discussion of self.

5. Discussion in past tense.
6. Discussion in present tense.
7. Direct references to the experiment, experimenter or setting.
8. Discussion of problems.
9. Active coping with problems.
10. Uncertain and qualified speech.
11. Silence.

In deciding on the categories and defining them operationally we used the experience gathered in using similar categories in the Winetraub & Aronson (1961), the Foley (1966) and the Stollak et al. (1967) studies.

For definitions of scoring categories see Appendix V. Category 9 had to be dropped, due to the small number of scorings obtained in it.

Reliability

Table 3 lists the percentage of agreement between two coders on each category.

Hypotheses

1. There will be more instances of expression of positive feelings (Category 1) in the APA group compared with the HPA Group.

2. There will be more instances of negative feelings (Category 2) in the HPA group compared with the APA group.

Table 3.--Percentage of agreement between two coders on each category.

Category	Percentage of Agreement
1	92
2	90
3	96
4	91
5	85
6	94
7	100
8	98
9	no scores
10	84
11	100

3. There will be more discussion of others (Category 3) in the HPA group, compared with the APA group.

4. There will be more self references (Category 4) in the APA group, compared with the HPA group.

5. There will be more references to the past (Category 5) in the HPA group, compared with the APA group.

6. There will be more discussion in the present tense (Category 6) in the APA group, compared with the HPA group.

7. There will be more discussion of problems (Category 8) in the APA group, compared with the HPA group.

8. There will be more direct references to the situation (Category 7) in the APA group, compared with the HPA group.

9. There will be more instances of uncertainty (Category 10) in the HPA group, compared with the APA group.

10. There will be more instances of silence (Category 11) in the HPA group, compared with the APA group.

Analysis of Data

For each S, the total number of responses on each category, for each session, was obtained. This score has served as the basic raw score for analysis purposes. We have performed three basic operations on these raw scores as we progressed with our analysis:

1. Combining the three scores for the three sessions together.

2. Comparing the combined raw scores.

3. Dividing raw scores by talking time and obtaining Scores-per-Minute.

Computation of central values for the various scores, transformation of scores, and computation of correlation coefficients were all performed through the use of the MSU CDC 3600 computer. Two tailed t tests were used to determine significance of differences between means.

III. RESULTS

Consistency Over Sessions

The Ss behavior over the three sessions was found to be highly consistent. Mean correlation coefficients between the mean scores, on each category, over three sessions are reported in Table 4 below.

Table 4.--Mean correlation coefficients over the three sessions for the ten categories.

Category	Mean Correlation
Positive Feelings	.425
Negative Feelings	.465
Self	.755
Others	.755
Past	.775
Present	.735
Direct	.765
Problems	.625
Uncertain	.775
Silence	.825

The mean correlation coefficients reported in Table 4 were transformed into reliability coefficients, by using the Spearman-Brown formula. Table 5 presents the reliability coefficients, which ranged from .689 to .933 with eight of them above .800. It was decided, therefore, to combine the scores obtained on each category over the three sessions, and treat the 60 minutes of free verbalization time as one unit.

Table 5.--Reliability coefficients for the 10 categories over three sessions. (N = 20)

Category	Reliability Coefficient
Positive Feelings	.689
Negative Feelings	.722
Self	.902
Others	.902
Past	.911
Present	.892
Direct	.907
Problems	.833
Uncertain	.911
Silence	.933

Differences in Raw Scores

Means and standard deviations for the combined raw scores were computed in each group for the ten categories. Table 6 summarizes the differences between the two groups on ten categories.

From this table the following conclusions can be drawn:

1. There is a statistically significant difference between the two groups on one out of ten categories.

2. There is a difference between the two groups in the amount of silence during the three sessions or, in other words, in the amount of talking.

3. Though in some cases the differences between means look substantial, they did not reach statistical significance because of large variances.

It was hypothesized that the amount of talking done during the sessions might have an effect on scores in the other categories.

Table 7 summarizes the coefficients of correlation found between silence and other categories in the combined (APA + HPA) group of 20 Ss. The coefficients are all negative, since the correlation is with Silence. The correlation with talking is in the opposite direction, obviously.

Scores-Per-Minute Analysis

The correlation coefficients reported in Table 7 clearly point to the possibility of contamination of

Table 6.--Mean raw scores of high and average problem admitters over three sessions.

Category	HPA (N = 11)		APA (N = 9)		t	Significance
	Mean	Standard Deviation	Mean	Standard Deviation		
Positive Feelings	16.72	11.67	16.22	10.48	.100	NS
Negative Feelings	27.36	16.22	31.44	16.45	.56	NS
Self	150.18	45.95	126.22	55.45	1.05	NS
Others	115.72	37.02	72.33	39.32	2.53	p < .05
Past	57.36	36.61	43.33	29.47	.928	NS
Present	175.27	39.00	137.00	55.27	1.81	NS
Direct	30.36	38.48	16.55	13.10	1.11	NS
Problems	25.90	25.48	29.33	16.35	.35	NS
Uncertain	93.90	36.92	64.77	38.68	1.71	NS
Silence	25.54	28.02	60.66	64.32	1.52	NS

Table 7.--Simple correlations of Silence scores and other categories (N = 20).

Category	Correlation
Positive Feelings	-.474
Negative Feelings	-.438
Self	-.826
Past	-.557
Present	-.946
Direct	-.254 NS
Problems	-.165 NS
Uncertain	-.809

various categories by the silence-talking factor, and for that reason it was decided to use a new measure, taking into effect the amount of talking done by each S.

An actual talking time in minutes was computed by:

1. Dividing the Silence score (which was actually the number of 15 second intervals during which the S was silent) by 4, and thus obtaining an actual silence time in minutes.

2. Subtracting the actual silence time from the potential talking time of 60 minutes.

This computation was done for each individual S. Then, each S's score on each category was divided by his

actual talking in minutes. Thus, a Score Per Minute (SPM) was obtained for every S, and these scores were used to obtain central SPM values for the two groups.

Table 8 reports the coefficients of correlation between talking time and SPM scores on the nine categories in the combined (APA + HPA) group of 20 Ss.

Table 8.--Simple correlations of actual talking time and other categories (SPM). (N = 20)

Category	Correlation
Positive Feelings	.232 NS
Negative Feelings	.074 NS
Self	.334 NS
Past	.372
Present	.584
Direct	.117 NS
Problems	-.227 NS
Uncertain	.687
Others	.573

As Table 8 shows, the use of SPM instead of raw scores partially neutralized the effect of talking as a contaminating factor in scores. However, even with the use of SPM there are still significant positive correlations with four categories.

Table 9 reports mean Scores Per Minute and actual talking time for the two groups, together with the respective t values for differences.

The values reported in Table 9 were used to test our ten hypotheses. Table 10 summarizes the hypothesis testing.

Table 9.--Mean Scores-Per-Minute and total talking time in minutes of high and average problem admitters over three sessions.

Category	High Problem Admitters (N = 11)		Average Problem Admitters (N = 9)		t	Significance
	Mean	Standard Deviation	Mean	Standard Deviation		
Expression of positive feeling	.31	.19	.34	.20	.406	NS
Expression of negative feeling	.51	.29	.67	.23	1.313	NS
Discussion of self	2.77	.68	2.71	.74	.187	NS
Discussion of others	2.12	.55	1.51	.64	2.26	P < .05
Discussion of past tense	1.05	.66	.88	.47	.68	NS
Discussion of present tense	3.24	.38	2.96	.51	1.32	NS
Direct reference to experiment experimenter, or surroundings	.56	.66	.36	.24	.97	NS
Uncertain and qualified speech	1.71	.56	1.31	.60	1.56	NS
Discussion of problems	.49	.52	.68	.34	.93	NS
Talking time (in minutes)	53.61	7.01	45.11	15.60	1.51	NS

IV. DISCUSSION

In terms of direct support given to the hypotheses, only one hypothesis (no. 3) was supported by a finding of a statistically significant difference in the predicted direction. In addition, the differences on four other categories were in the predicted direction though they did not reach statistical significance.

Rather than dealing with specific hypotheses and discussing their confirmation or disconfirmation, it seems that it would be more fruitful to deal with patterns of behavior in the two groups, since in our predictions we were trying to delineate patterns of reaction to the experimental situation, that would differ in the two groups.

In the introductory section, we tried to analyze the effect of the experimental setting on the S, and we concluded that the main characteristics of the situation,

a) ambiguity, and

b) lack of reinforcement,

will arouse anxiety, and thus create the basic problem that the S has to face.

Table 10.--Summary of results regarding hypothesis testing.*

Hypothesis	Result
1	NS
2	NS
3	Supported
4	NS
5	NS
6	NS
7	NS
8	NS
9	NS
10	NS

*To use this table consult the list of hypotheses in the Method section.

We expected the heightened level of anxiety to create two specific problems:

1. How to keep talking while anxious,
2. talking on personal or impersonal topics.

It was, therefore, expected the two groups would differ in their level of anxiety and, thus, in their reaction to the situation. The HPA group, viewed as the more "disturbed" or deviant group, was expected to become more anxious, considering the findings of Singer & Stefflre (1957) and Hammes (1959).

This was the background of the specific predictions. We followed the Rogerian analysis of change in psychotherapy to recognize specific modes of behavior, in which the two groups differ. One possible explanation for the absence of more clear-cut differences between the groups is that the situation failed to bring out the differences, because it was not actually as anxiety provoking as was assumed.

Ambiguous and non-reinforcing as the situation was, the permissive atmosphere of the sessions, and the possibility that lack of reinforcement was interpreted as a laissez-faire attitude on the part of the experimenters may have further reduced whatever anxiety the situation might have aroused. It may be that more structure in the form of instructions to discuss feelings, personal problems, etc. could have brought out more differences between the two groups.

Another reason for the failure to arouse the expected level of anxiety may have to do with the fact that only three sessions of free verbalization were analyzed. As the findings of Martin, Lundy and Lewin (1960) show, there was a rise in anxiety when Ss were in a free verbalization situation for five consecutive sessions.

The Importance of the Talking Factor.

Talking was recognized as the basic and most difficult task of the S in the situation. It was predicted

that the HPA group, being more anxious, would be less talkative. The actual difference was in the opposite direction.

Let us examine the meaning of this "taklativeness" in the HPA group. Does the HPA group come out as more "open"? Are the HPA Ss more ready to discuss personal experiences?

Table 8 reports the correlation of actual talking time with content categories. As we see in this table, talking time is significantly and positively correlated with four content categories: Discussion in Past, Present, Uncertain and Qualified Speech and Discussion of Others. Two of these categories, Uncertain and Others, can be regarded as defensive, in view of the analysis offered by Winetraub A & Aronson (1961). If we go back to our original analysis, we may say that the HPA talked more, but failed to talk on a personal level.

Personal and Non-Personal Topics in the Two Groups.

It is interesting to note that personal topics and feelings were little discussed by Ss of both groups. Table 9, showing the SPM scores, shows low scores for both groups on Positive Feelings, Negative Feelings and Problems.

Category 9, Active coping with problems, had to be dropped due to very few scores in it. This means that both groups were somewhat "defensive" in the situation.

According to Dollard and Miller (1950), we would predict either silence or talking on neutral topics as a reaction to an anxiety provoking situation.

It was predicted that the HPA group would react with silence and more neutral activity (talking on non-personal topics), compared to the APA group. The results show that both groups reacted with talking on neutral topics.

Silence as a defensive measure is possibly used only in extreme anxiety arousing situations. A medium degree of anxiety, such as with most Ss here, did not bring about this reaction.

One source of the failure to predict Ss reaction to the situation (and the predictions of silence and "defensive" measures) might have been the application of clinically derived concepts to a basically normal population. We applied a clinical prediction of behavior following ambiguity-related anxiety to a situation that for most Ss did not arouse extreme anxiety.

It may well be that talking on impersonal topics is the appropriate reaction of college students to such a situation. Most of the previous studies were done in a medical or psychotherapeutic setting, or at least Ss were told about the similarity of the situation to psychotherapy. In the present study the setting was completely neutral, and no references to psychotherapy were made. Under such conditions, it might have been appropriate not to "open up."

It may be that this is the characteristic behavior of Ss in such a neutral non-personal situation. Colby (1960) found that in the absence of an observer to free associations there is a decline in references to persons, and in the observer's presence there is an activation of the "imago system," or the system of personal images and feelings.

Other Factors.

A possible source of trouble in a study of this scope is the small number of Ss, that certainly might have contributed to the lack of statistical significance in the differences.

Another possibility is that we might have had more significant differences, had we chosen the Low Problem Admitters group for comparison with the Average Problem Admitters. It seems that, if we consider extremely low scores on the MPCL an indication of defensiveness, we could have more defensive behavior manifested in the situation, had we used the Low Problem Admitters. There seems to be a relationship between "productivity" on the MPCL and productivity in the free verbalization situation. The HPA group in the present study was the more productive one in terms of talking. It may be that the Low Problem Admitters would have been the less productive in the situation, compared with the APA.

Suggestions for Future Research.

Some of the explanations offered here could be tested in future research projects. It seems worthwhile to examine Ss behavior in a free verbalization situation with a greater number of sessions per S. It could, then, be determined if a greater number of sessions would cause a rise in anxiety and a change in Ss behavior.

A worthwhile variation in the procedure would be giving more specific instructions, and especially directing Ss towards discussions of personal problems and feelings.

Having a completely passive observer in the room with the S could bring about a similar effect, according to the study by Colby (1960), discussed above. We would assume that the presence of an observer would increase references to persons and discussions of a more personal nature. Then it would be possible to see if there are any differences in the degree of self exposure in Ss differing in their number of admitted problems or their self-ideal-self discrepancy.

Summary.

The results of the present study failed to support the predictions concerning differences between the two groups in the free verbalization situation. The following explanations for the lack of clear-cut differences were attempted:

1) It was possible that the permissive atmosphere in the situation failed to arouse anxiety, as had been assumed, and thus did not give rise to different patterns of reaction to such anxiety. The Ss went only through three sessions of this procedure, and this was not enough to induce anxiety.

2) The similar behavior of talking on a non-personal level in both groups might have been the appropriate or characteristic reaction of college students to the neutral, non-personal situation.

3) The small number of Ss might have contributed to the lack of statistically significant differences.

4) More differences might have been found between a group of Low Problem Admitters and a group of Average Problem Admitters, instead of APA and HPA, as was the case in this study.

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APPENDICES

APPENDIX I.

The Mooney Problem Check List.

1950
REVISION

MOONEY PROBLEM CHECK LIST

ROSS L. MOONEY

Assisted by LEONARD V. GORDON

Bureau of Educational Research

Ohio State University

C COLLEGE
FORM

Age..... Date of birth..... Sex.....

Class in college..... Marital status.....
(Freshman, Sophomore, etc.) (Single, married, etc.)

Curriculum in which you are enrolled.....
(Electrical Engineering, Teacher Education, Liberal Arts, etc.)

Name of the counselor, course or agency
for whom you are marking this check list.....

Your name or other identification,
if desired.....

Date.....

DIRECTIONS

This is not a test. It is a list of troublesome problems which often face students in college—problems of health, money, social life, relations with people, religion, studying, selecting courses, and the like. You are to go through the list, pick out the particular problems which are of concern to you, indicate those which are of most concern, and make a summary interpretation in your own words. More specifically, you are to take these three steps.

First Step: Read the list slowly, pause at each item, and if it suggests something which is troubling you, underline it, thus "34. Sickness in the family." Go through the whole list, underlining the items which suggest troubles (difficulties, worries) of concern to you.

Second Step: After completing the first step, look back over the items you have underlined and circle the numbers in front of the items which are of *most concern* to you, thus,

" (34.) Sickness in the family."

Third Step: After completing the first and second steps, answer the summarizing questions on pages 5 and 6.



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The Psychological Corporation

304 East 45th Street, New York 17, N. Y.

Cir.	Tot.
HPD	
FLE	
SRA	
SPR	
PPR	
CSM	
HF	
MR	
ACW	
FVE	
CTP	
TOTAL . . .	

1. Feeling tired much of the time
2. Being underweight
3. Being overweight
4. Not getting enough exercise
5. Not getting enough sleep
6. Too little money for clothes
7. Receiving too little help from home
8. Having less money than my friends
9. Managing my finances poorly
10. Needing a part-time job now
11. Not enough time for recreation
12. Too little chance to get into sports
13. Too little chance to enjoy art or music
14. Too little chance to enjoy radio or television
15. Too little time to myself
16. Being timid or shy
17. Being too easily embarrassed
18. Being ill at ease with other people
19. Having no close friends in college
20. Missing someone back home
21. Taking things too seriously
22. Worrying about unimportant things
23. Nervousness
24. Getting excited too easily
25. Finding it difficult to relax
26. Too few dates
27. Not meeting anyone I like to date
28. No suitable places to go on dates
29. Deciding whether to go steady
30. Going with someone my family won't accept
31. Being criticized by my parents
32. Mother
33. Father
34. Sickness in the family
35. Parents sacrificing too much for me
36. Not going to church often enough
37. Dissatisfied with church services
38. Having beliefs that differ from my church
39. Losing my earlier religious faith
40. Doubting the value of worship and prayer
41. Not knowing how to study effectively
42. Easily distracted from my work
43. Not planning my work ahead
44. Having a poor background for some subjects
45. Inadequate high school training
46. Restless at delay in starting life work
47. Doubting wisdom of my vocational choice
48. Family opposing my choice of vocation
49. Purpose in going to college not clear
50. Doubting the value of a college degree
51. Hard to study in living quarters
52. No suitable place to study on campus
53. Teachers too hard to understand
54. Textbooks too hard to understand
55. Difficulty in getting required books
56. Not as strong and healthy as I should be
57. Allergies (hay fever, asthma, hives, etc.)
58. Occasional pressure and pain in my head
59. Gradually losing weight
60. Not getting enough outdoor air and sunshine
61. Going in debt for college expenses
62. Going through school on too little money
63. Graduation threatened by lack of funds
64. Needing money for graduate training
65. Too many financial problems
66. Not living a well-rounded life
67. Not using my leisure time well
68. Wanting to improve myself culturally
69. Wanting to improve my mind
70. Wanting more chance for self-expression
71. Wanting a more pleasing personality
72. Losing friends
73. Wanting to be more popular
74. Being left out of things
75. Having feelings of extreme loneliness
76. Moodiness, "having the blues"
77. Failing in so many things I try to do
78. Too easily discouraged
79. Having bad luck
80. Sometimes wishing I'd never been born
81. Afraid of losing the one I love
82. Loving someone who doesn't love me
83. Too inhibited in sex matters
84. Afraid of close contact with the opposite sex
85. Wondering if I'll ever find a suitable mate
86. Parents separated or divorced
87. Parents having a hard time of it
88. Worried about a member of my family
89. Father or mother not living
90. Feeling I don't really have a home
91. Differing from my family in religious beliefs
92. Failing to see the relation of religion to life
93. Don't know what to believe about God
94. Science conflicting with my religion
95. Needing a philosophy of life
96. Forgetting things I've learned in school
97. Getting low grades
98. Weak in writing
99. Weak in spelling or grammar
100. Slow in reading
101. Unable to enter desired vocation
102. Enrolled in the wrong curriculum
103. Wanting to change to another college
104. Wanting part-time experience in my field
105. Doubting college prepares me for working
106. College too indifferent to student needs
107. Dull classes
108. Too many poor teachers
109. Teachers lacking grasp of subject matter
110. Teachers lacking personality

111. Poor posture
 112. Poor complexion or skin trouble
 113. Too short
 114. Too tall
 115. Not very attractive physically
116. Needing money for better health care
 117. Needing to watch every penny I spend
 118. Family worried about finances
 119. Disliking financial dependence on others
 120. Financially unable to get married
121. Awkward in meeting people
 122. Awkward in making a date
 123. Slow in getting acquainted with people
 124. In too few student activities
 125. Boring weekends
126. Feelings too easily hurt
 127. Being talked about
 128. Being watched by other people
 129. Worrying how I impress people
 130. Feeling inferior
131. Unhappy too much of the time
 132. Having memories of an unhappy childhood
 133. Daydreaming
 134. Forgetting things
 135. Having a certain nervous habit
136. Being in love
 137. Deciding whether I'm in love
 138. Deciding whether to become engaged
 139. Wondering if I really know my prospective mate
 140. Being in love with someone I can't marry
141. Friends not welcomed at home
 142. Home life unhappy
 143. Family quarrels
 144. Not getting along with a member of my family
 145. Irritated by habits of a member of my family
146. Parents old-fashioned in their ideas
 147. Missing spiritual elements in college life
 148. Troubled by lack of religion in others
 149. Affected by racial or religious prejudice
 150. In love with someone of a different race or religion
151. Not spending enough time in study
 152. Having too many outside interests
 153. Trouble organizing term papers
 154. Trouble in outlining or note-taking
 155. Trouble with oral reports
156. Wondering if I'll be successful in life
 157. Needing to plan ahead for the future
 158. Not knowing what I really want
 159. Trying to combine marriage and a career
 160. Concerned about military service
161. Not having a good college adviser
 162. Not getting individual help from teachers
 163. Not enough chances to talk to teachers
 164. Teachers lacking interest in students
 165. Teachers not considerate of students' feelings

166. Frequent sore throat
 167. Frequent colds
 168. Nose or sinus trouble
 169. Speech handicap (stuttering, etc.)
 170. Weak eyes
171. Working late at night on a job
 172. Living in an inconvenient location
 173. Transportation or commuting difficulty
 174. Lacking privacy in living quarters
 175. Having no place to entertain friends
176. Wanting to learn how to dance
 177. Wanting to learn how to entertain
 178. Wanting to improve my appearance
 179. Wanting to improve my manners or etiquette
 180. Trouble in keeping a conversation going
181. Being too envious or jealous
 182. Being stubborn or obstinate
 183. Getting into arguments
 184. Speaking or acting without thinking
 185. Sometimes acting childish or immature
186. Losing my temper
 187. Being careless
 188. Being lazy
 189. Tending to exaggerate too much
 190. Not taking things seriously enough
191. Embarrassed by talk about sex
 192. Disturbed by ideas of sexual acts
 193. Needing information about sex matters
 194. Sexual needs unsatisfied
 195. Wondering how far to go with the opposite sex
196. Unable to discuss certain problems at home
 197. Clash of opinion between me and parents
 198. Talking back to my parents
 199. Parents expecting too much of me
 200. Carrying heavy home responsibilities
201. Wanting more chances for religious worship
 202. Wanting to understand more about the Bible
 203. Wanting to feel close to God
 204. Confused in some of my religious beliefs
 205. Confused on some moral questions
206. Not getting studies done on time
 207. Unable to concentrate well
 208. Unable to express myself well in words
 209. Vocabulary too limited
 210. Afraid to speak up in class discussions
211. Wondering whether further education is worthwhile
 212. Not knowing where I belong in the world
 213. Needing to decide on an occupation
 214. Needing information about occupations
 215. Needing to know my vocational abilities
216. Classes too large
 217. Not enough class discussion
 218. Classes run too much like high school
 219. Too much work required in some courses
 220. Teachers too theoretical

221. Frequent headaches
 222. Menstrual or female disorders
 223. Sometimes feeling faint or dizzy
 224. Trouble with digestion or elimination
 225. Glandular disorders (thyroid, lymph, etc.)
226. Not getting satisfactory diet
 227. Tiring of the same meals all the time
 228. Too little money for recreation
 229. No steady income
 230. Unsure of my future financial support
231. Lacking skill in sports and games
 232. Too little chance to enjoy nature
 233. Too little chance to pursue a hobby
 234. Too little chance to read what I like
 235. Wanting more worthwhile discussions with people
236. Disliking someone
 237. Being disliked by someone
 238. Feeling that no one understands me
 239. Having no one to tell my troubles to
 240. Finding it hard to talk about my troubles
241. Afraid of making mistakes
 242. Can't make up my mind about things
 243. Lacking self-confidence
 244. Can't forget an unpleasant experience
 245. Feeling life has given me a "raw deal"
246. Disappointment in a love affair
 247. Girl friend
 248. Boy friend
 249. Breaking up a love affair
 250. Wondering if I'll ever get married
251. Not telling parents everything
 252. Being treated like a child at home
 253. Being an only child
 254. Parents making too many decisions for me
 255. Wanting more freedom at home
256. Sometimes lying without meaning to
 257. Pretending to be something I'm not
 258. Having a certain bad habit
 259. Unable to break a bad habit
 260. Getting into serious trouble
261. Worrying about examinations
 262. Slow with theories and abstractions
 263. Weak in logical reasoning
 264. Not smart enough in scholastic ways
 265. Fearing failure in college
266. Deciding whether to leave college for a job
 267. Doubting I can get a job in my chosen vocation
 268. Wanting advice on next steps after college
 269. Choosing course to take next term
 270. Choosing best courses to prepare for a job
271. Some courses poorly organized
 272. Courses too unrelated to each other
 273. Too many rules and regulations
 274. Unable to take courses I want
 275. Forced to take courses I don't like

276. Having considerable trouble with my teeth
 277. Trouble with my hearing
 278. Trouble with my feet
 279. Bothered by a physical handicap
 280. Needing medical advice
281. Needing a job during vacations
 282. Working for all my expenses
 283. Doing more outside work than is good for me
 284. Getting low wages
 285. Dissatisfied with my present job
286. Too little chance to do what I want to do
 287. Too little social life
 288. Too much social life
 289. Nothing interesting to do in vacations
 290. Wanting very much to travel
291. Too self-centered
 292. Hurting other people's feelings
 293. Avoiding someone I don't like
 294. Too easily led by other people
 295. Lacking leadership ability
296. Too many personal problems
 297. Too easily moved to tears
 298. Bothered by bad dreams
 299. Sometimes bothered by thoughts of insanity
 300. Thoughts of suicide
301. Thinking too much about sex matters
 302. Too easily aroused sexually
 303. Having to wait too long to get married
 304. Needing advice about marriage
 305. Wondering if my marriage will succeed
306. Wanting love and affection
 307. Getting home too seldom
 308. Living at home, or too close to home
 309. Relatives interfering with family affairs
 310. Wishing I had a different family background
311. Sometimes not being as honest as I should be
 312. Having a troubled or guilty conscience
 313. Can't forget some mistakes I've made
 314. Giving in to temptations
 315. Lacking self-control
316. Not having a well-planned college program
 317. Not really interested in books
 318. Poor memory
 319. Slow in mathematics
 320. Needing a vacation from school
321. Afraid of unemployment after graduation
 322. Not knowing how to look for a job
 323. Lacking necessary experience for a job
 324. Not reaching the goal I've set for myself
 325. Wanting to quit college
326. Grades unfair as measures of ability
 327. Unfair tests
 328. Campus activities poorly co-ordinated
 329. Campus lacking in school spirit
 330. Campus lacking in recreational facilities

TOTAL . . .

Cir.	Tot.
HPD	
FLE	
SRA	
SPR	
PPR	
CSM	
HF	
MR	
ACW	
FVE	
CTP	

Second Step: Look back over the items you have underlined and circle the numbers in front of the problems which are troubling you most.

Third Step: Pages 5 and 6

Third Step: Answer the following four questions.

QUESTIONS

1. Do you feel that the items you have marked on the list give a well-rounded picture of your problems?
.....Yes.No. If any additional items or explanations are desired, please indicate them here.
2. How would you summarize your chief problems in your own words? Write a brief summary.

3. Whether you have or have not enjoyed filling out the list, do you think it has been worth doing?
.....Yes.No. Could you explain your reaction?

4. If the opportunity were offered, would you like to talk over any of these problems with someone on the college staff?Yes.No. If so, do you know the particular person(s) with whom you would like to have these talks?Yes.No.

APPENDIX II

Mean, standard deviation, and range of the Mooney
Problem Check List scores.

	N = 198		
	x	s	Range
Mooney	40.0	23.7	2 - 142

APPENDIX III

Recruiting letter to 60 selected students.

The following concerns the second phase of the personality research study for which you have already taken three tests, and have received one (1) hour of research credit.

You have been chosen to participate in the second phase of the experiment. This phase will require four hours of your time, for which you will receive four (4) hours of research credit. Perhaps this is more research credit than you need to fulfill your requirements for Psychology 151; so consider this carefully before you decide to volunteer for this part of the study.

We are doing an experiment concerned with free association--an activity which many MSU students have found exciting, rewarding, and challenging.

Our plan is to see you at least twice a week, for half hour sessions, scheduled according to your convenience. At this point, we are ready to start scheduling half-hour appointment times.

In the following blank schedule, please indicate only your free half-hour breaks. We will schedule you on

the basis of your free time; therefore INDICATE ONLY THOSE PERIODS DURING WHICH YOU ARE USUALLY FREE.

After the schedule has been planned, we will notify you of your regular appointment times.

If you do not care to participate, please sign your name on the schedule sheet, leave the schedule blank, and return it.

APPENDIX IV

Instructions to Ss.

"We are interested in obtaining information about the free associations of college students. We would like you to sit here alone for the next 20 minutes and say aloud whatever comes into your mind. There are no restrictions as to language used, topics, problems or issues discussed.

Some people have difficulty talking out loud alone, so if you do have difficulty, just sit back, try to relax, and something will come to you to talk about.

Again, feel free to talk about anything at all. As you can see by this microphone, we are tape recording your talk and will analyze it later. To preserve confidentiality, when I leave and knock on the door, state your student number, session number, and today's date and then begin. I will knock again at the end of the 20 minutes."

APPENDIX V

Definitions of the 11 Coding Categories

Categories 1 and 2: Expression of positive (1) and negative (2) feelings.

Any reference to having a certain feeling in the present or in the past was scored as an expression of feeling. Feelings were scored in category 1 or category 2 according to their place on a good-bad dimension as perceived by the S; and elegance of language was not important for categorization purposes. If "feel" was used as a synonym for "think," the category was not scored.

Examples of words and phrases included in statements of positive and negative feelings for categories 1 and 2, respectively, are as follows:

Category 1: love, like, dig, cool, groovy

Category 2: hate, can't stand, bugged, pissed, ugh

Category 3: Discussion of Others.

Any reference to a person other than the S, whether known or unknown by him, but excluding the E, were scored as non-personal references.

Examples of words or inferred subjects of statements scored as non-personal references are as follows: he, they,

she, others, and general references such as "people," "one," "you."

Category 4: Discussion of self

Any reference that S made to himself directly, or any statement in which S referred to himself and others jointly was scored as discussion of self.

Examples of words or inferred subjects of statements scored as discussion of self are as follows: I, me, we, us.

Category 5: Discussion in past tense

Any statement by S about a past event, feeling, or situation was scored as discussion in past tense.

Category 6: Discussion in present tense

Any statement by S about a present event, feeling, or situation was scored as discussion in present tense.

Category 7: Direct references

Any statement made by S which included any of the following three referents was scored as a direct reference:

- a. the experimenter
- b. the experiment itself or experimental method
- c. the immediate physical surroundings

Category 8: Descriptive discussion of problems

Any reference to or description of an actual hypothetical problem was scored as descriptive discussion or

problems. Words and phrases used in scoring descriptive discussion of problems included the following: "bothers me," "worry about," "trouble," "confused," "afraid," "problem I have," "difficulty," "I don't like to. . .but I have to," "I don't know what to do about. . ."

Category 9: Discussion of personal coping with problems

Any reference made by S to an apparently positive means of coping with an actual or hypothetical problem in his personal life was scored as discussion of personal coping with problems. An example follows: "I am going to talk to X about our relationship."

Category 10: Uncertain and qualified speech

Any use of qualifiers, retractions, and explanations regarding statements about feelings, situations and events were scored as evidence of guardedness. Examples are as follows:

- a. Phrases, words, or clauses indicating uncertainty (e.g., "I suppose," "I guess," "I wonder," "I don't know," "it seems," "maybe," "possibly").
- b. The use of modifiers that partially or totally retracted from the immediately preceding statement (e.g., "more or less," "except," "although," "but," "however," "nevertheless,")
- c. Words or phrases which introduced an element of vagueness (e.g., "what one might call," "whether or not.")

- d. Words or phrases indicating a causal relationship (e.g., "because," "due to," "on account of").

Category 11: Silence

Any interval of 15 sec. during which no words or sounds were uttered by S was scored as silence.

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