



THE EFFECTS OF "PSYCHOLOGICAL
HEALTH" ON THE VERBAL BEHAVIOR
OF DYADS IN AN UNSTRUCTURED
SITUATION

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ABSTRACT

THE EFFECTS OF "PSYCHOLOGICAL HEALTH" ON THE VERBAL BEHAVIOR OF DYADS IN AN UNSTRUCTURED SITUATION

by Jimmy C. Love

This study investigated the effect of "psychological health" on the verbal behavior of female strangers in an unstructured situation. "Psychologically healthy" (PH) and "psychologically unhealthy" (PU) groups of female Ss were formed on the basis of their scores on the Mooney Problem Checklist and the Interpersonal Check List.

Twelve PH Ss and 10 PU Ss were randomly paired into PH-PH, PH-PU, and PU-PU dyads. Each dyad met for 20 minute sessions under instructions to discuss any topic in any manner they wished. The verbal behavior of the dyad, scored as a unit, was coded for categories indicative of "psychological health" based on similar scoring systems used by Rogers and Stollak in previous research.

The following hypotheses were investigated:

- I. There is a positive correlation between the number of admitted problems and Self-Idea Self Discrepancy scores.
- II. PH-PH dyads will score significantly higher than PU-PU dyads in the Expression of Negative Feeling,

Reference to Self, Questioning Other Dyad Member, Reference to Present or Future, Direct Reference, Reference to Problems (Descriptive), Reference to Problems (Coping).

III. PU-PU dyads will score significantly higher than PH-PH dyads in Reference to Others, Reference to Past, Guardedness and Explanations, Silence.

IV. There will be a significant difference in the interaction scores for all sessions between each dyad, i.e., PH-PH, PH-PU, and PU-PU.

Hypotheses I and IV were supported; hypotheses II and III were partially supported although the data indicates that, with one exception, the findings were in the hypothesized direction. Specifically, as compared to the other dyads, PH-PH dyads made significantly more reference to self, and to problems and their solutions whereas PU-PU dyads made significantly more references to others and were more guarded.

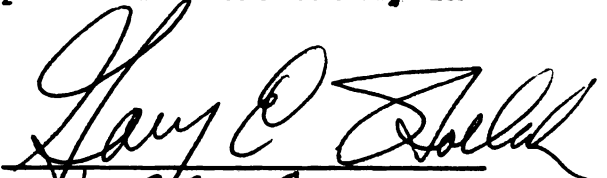
Even with the small N, the results suggest that dyads of "mentally healthy" persons tended to communicate in a manner expressive of their immediate, present selves, whereas dyads of "mentally unhealthy" persons tended to avoid self-references, were more guarded and more oriented temporally to the past and to external, non-self materials, possibly as a defensive maneuver.

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In conclusion, it was pointed out that there were several experimental design features in the current study which may have influenced the findings and these aspects are examined. Some considerations and suggestions are offered for future research in interpersonal relationship investigation.

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By

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To my twenty-two lovely female Subjects, who, though frequently sporadic and dilatory in materializing at the proper time and place, nonetheless, managed to provide me with a profuse amount of gossip, amusement--and data.

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INTRODUCTION

Rationale for Research in Dyadic Relations

The smallest, most basic of all groups is the dyad. Simmel (1950, trans.), who is generally credited with formulating many of the earlier theories pertaining to the sociological significance of the dyad, called it a "Zweierverbindung"--a union of two. He noted that the important and desirable aspects of life (e.g., marriage, love, sex, close friendships, etc.) occur in the dyad and seldom occur to any degree in the more populous unions. It is the "simplest sociological formation"; nevertheless, it "contains the scheme, germ and material of innumerable of more complex forms."

Simmel's observations provide a rationale for research in social relationships as they appear in dyadic interactions. The multitude of behavioral variables in the dyad are more easily conceptualized and dealt with. It is complex in that a rich variety of human interactions are possible. It is comprehensive in scope since many of the individual's socialization processes are conducted within the dyadic framework.

Finally, Dollard and Miller (1950) have observed that the same kinds of individual behavior are likely to occur in different kinds of social interactions, irrespective of the function or social purpose of these involvements. Thus, an analysis of the stereotypic behavior of one dyad type may provide data which enhances the ability of the researcher to predict various behavior variables in other dyad types.

Mental Health in Interpersonal Relations

Newcomb (1965) states that the interpersonal relationship depends, in the main, upon the attitude each member of the relationship holds for the other. A mutually favorable attitude leads to a productive and stable relationship. An unfavorable attitude on the part of one or more members results in a less productive, eventually unstable relationship.

Newcomb specifically cites the disruptive effect of the "attitudes" of neurotics (as the term is defined by Horney (1945) and Leary (1957)). His treatment of this effect, which is not extensive, appears to be that possession of some form of mental unhealthiness does not preclude the establishment of an interpersonal relationship; rather, that clinical models of mental disorders have an immediate and pervasive influence on interpersonal relationships and

that the interpersonal responses therein will reflect the mental health status of the participants. Since Newcomb states that the psychological processes (intrapersonal) of each member are in contact with every other member and are "mediated" by communication, it would appear that an analysis of this communication would reveal cues as to the mental health status of the individual participants.

Mental Health and the Acquaintance Process in Dyads

Newcomb's (1961) exhaustive study of the processes by which strangers established relationships over a two-year period has improved our understanding of the development of stable interpersonal relationships. Newcomb found a general tendency for people to be attracted to those whom they perceive to have "favorable" personal characteristics. When two individuals have similar attitudes or feelings toward an object, person, or idea, they will tend to increase their degree of attraction for each other, leading to interaction. Increased interaction, in turn, brings the sentiments of the two more closely together so that a person through trial and error learns which personal characteristics of the other person and of himself, are vital and valuable to the friendship relation, which are neutral, and which are undesirable.

Newcomb (1965) does not specifically indicate whether the psychological processes involved are effected by the

mental health status of the individual although he found that neurotics tend to relate in a similar but somewhat exaggerated style. Moreover, a review of the literature pertaining to the effect of mental health--specifically, the mentally "healthy" and "unhealthy"--upon the acquaintance process reveals only studies which are secondary to the issue, i.e., having to do with the relationship of various personality traits to the performance of specific tasks.

Newcomb (1961) did find in the earlier study, however, that some individuals initially tended to be more open in their display of what might be considered as desirable qualities, e.g., trust, loyalty, etc., and that these individuals were differentially perceptive in their ability to discern these qualities from those which are undesirable. To which, Izard (1960) concluded that in the acquaintance process, those individuals who are initially socially and emotionally mature (i.e., possess mental health) have less need to have their personality characteristics reflected in their friends. Apparently they do not need friends as a means of enhancing their own security operations because they have already achieved this through other means. They are, thereby, more given to openness about themselves, to seek productive acquaintanceships and generally, to provide stability to the relationship.

Psychotherapy and the Acquaintance Process

While the present study is not, per se, a study of psychotherapy variables, there are common elements in the "stranger" dyad and the therapeutic dyad. Rogers (1961a), for instance, states that "there seems every reason to suppose ... that the same lawfulness governs all such relationships ... and if we specify certain attitudinal conditions exist (in therapeutic dyads), then certain definable changes may occur." Hare and Bales (1963) and Leary (1957) contend that such factors as language and personality information are of considerable significance in determining the form of the interaction in all dyads in general, and in therapeutic dyads in particular. Given a similarity of variables inherent to both the psychotherapy and the acquaintance processes, it appears that valid predictions and generalizations may be effected.

Recently, Jaffe (1961) has used the term "dyad" to refer to a specific interpersonal system encompassing a therapist and client in a psychotherapeutic situation. Utilizing several content-analysis systems, he studied the verbal behavior emitted in these situations as if it came from one person. His assumption was that the dyadic content or "language" would undergo a perceptable change as therapy progressed and that an analysis of these changes would correlate with various clinical constructs such as defensive

maneuvering and stressful disorganization. This assumption was based upon a dyadic analysis of pre- and post-treatment interviews of a successfully treated psychotic patient who revealed shifts in phraseology and word usage toward a succinctness which was adjudged as clinically "normal" (Jaffe, 1957).

The Predictive Function in "Stranger" Dyads

It appears that little, if any, attention has been given to the actual prediction of the form which the acquaintance relationship will take--prediction made on the basis of personality data which is obtained on strangers prior to their coming together for the purpose of studying the type of interaction which emerges. Newcomb (1961) points out one of the major shortcomings of his research--viz., the fact that he had obtained no prior personality data on his subjects before introducing them into the experimental "acquaintance" situation. "Our personality data should have been more complete and more systematically obtained. Were we to repeat the research, we should feel much more confident about several ways in which such data could be used, in hypothesis-testing fashion."

Interestingly enough, where such hypothesis-testing had been included in the experimental design (e.g., Izard, 1960), the research was contaminated by the fact that the

Ss were already acquainted prior to the investigation. The failure to compile personality data prior to undertaking research into interpersonal relations, particularly those involving strangers would appear therefore, to have constituted a serious gap in our knowledge of the dyadic relationship.

Summary

The most basic and diverse of all human interactions occurs in the dyad, an interpersonal system which easily lends itself to experimentation and analysis. The mental health status of the dyad members probably has important consequences for promotion and individual involvement in new, stranger-type dyads as well as for the stability and protracted growth of existing dyads. There are, however, no studies which specifically delineate the effects of varying states of mental health on the acquaintance process nor on the function of prediction where such prediction is based on the obtainment of prior personality data. It is possible that an analysis of the communicative process between strangers may reveal certain expressions and phrases which correlate with their mental health status on a health-unhealthy dimension. Finally, the possibility of a large measure of commonality between the acquaintance process in "stranger" dyads and the initial relationship in

therapeutic dyads provides a fertile field for the researcher to effect valid predictions and generalizations applicable to both.

THE CURRENT PROBLEM

The Problem of Defining Psychological Health

One of the tasks of the current study was to attempt to predict the form which the process of acquaintanceship would take, given the availability of some pre-existing personality data. Initially, however, an analysis of this data had to be effected in order to delimit two groups of Ss, the Psychologically Healthy (PH) and the Psychologically Unhealthy (PU). Thus, PH and PU are, in effect, the independent variables; the dyadic dimensions along which the measurements and predictions are effected are the dependent variables.

This is not to stipulate, however, that E views PH and PU as something mutually exclusive; rather, they are terms utilized to delineate certain types of interacting groups. There is, in fact, no definitive meaning to be given either term apart from some arbitrary designation. Szasz (1960), for example, postulates that PH is a "clearly defined psycho-social, ethical, and legal norm," whereas PU is "implied by a deviation from the norm:" the latter is also a "myth" and "a problem in communication ... in living." Haley (1963) states that psychopathology in

interpersonal relationships would be ideally indicated by the "presence or absence of certain readily observable sequences in the interaction." Guerney and Stollak (1965) feel that there is "no hard and fast line separating 'neurotic' from 'normal.' Rather, there are patterns of more or less success in solving ... intra- and inter-personal problems."

Lastly, a broad and searching review of the problem by Offer and Sabshin (1966), who examined the diverse theoretical viewpoints of Rogers, Freud, Maslow, Kubie, Jung, Jahoda, Grinker, Szasz and Alexander, concluded with the statement that a definition of normality (and by inference, abnormality) is neither possible nor necessary: "The definition is currently the responsibility of the individual investigator, who understanding the array of possible definitions, can employ knowledge rather than arbitrary ignorance to formulate his own definition."

For the purposes of this study, PH is regarded as essentially congruent with the postulations of Rogers (1963) and Maslow (1951). Rogers views PH as partially evidenced by a tendency toward self-actualization, a self-concept congruent with experience, and a need for positive self-regard. He notes that such a person is fully functioning, open to experience, aware, symbolically accurate, and maintains a high degree of unconditional self-regard.

Like Rogers, Maslow postulates that health is not sharply delineated from the state of unhealth; only that the usual biological, social and psychological problems of living may be viewed from a pathological, statistical and cultural viewpoint. A summation of PH as given by Maslow (1951) would include the following points: (1) adequate feelings of security, (2) adequate self-evaluation, (3) adequate spontaneity and emotionality, (4) efficient contact with reality, (5) adequate bodily desires and the ability to gratify them, (6) adequate self-knowledge, (7) integration and consistency of personality, (8) adequate life goals, (9) ability to learn from experience, (10) ability to satisfy the requirements of the group, and (11) adequate emancipation from the group or culture.

The Self-Concept and Psychological Health

An overview of the foregoing indicates that an essential aspect of PH is a self-concept congruent with reality. Truax and Carkhuff (1967) stipulate that a person's self-concept system has strong effects on the extent and style of his interpersonal relating. Therapeutically, they advocate a selective reinforcement to the client's self-concept where a self-ideal-self discrepancy exists in order to effect healthy changes in the individual.

A recent study by Stollak et al (1967) noted that in a 15-minute "free association" session, persons with low

self-ideal self discrepancy scores (as measured by the Leary Interpersonal Check List) evidenced more of those factors which are indicative of PH than did Ss with high self-ideal self discrepancy scores. Ss with low self-ideal self discrepancy scores emitted significantly more references to self, to immediate surroundings, to direct expression of positive and negative feelings and more general concern with the on-going, present aspects of their lives than did Ss with high self-ideal self discrepancy scores. These factors appear to be compatible with those aspects which we have stipulated as representative of "psychological health."

Accumulated Problems and Psychological Health

A second and equally important factor according to Rogers and Maslow is the absence of persistent, unsolvable problems. While the cliché that "everybody has problems" is frequently heard, nevertheless the individual who is unsuccessful in coping and thereby amasses a cumulative number of problems is more representative of the PU individual (Guerney and Stollak, 1965; Redlich, 1957; Szasz, 1960). As Grinker (1962) states, the healthy person is " ... one who does something about his problems." Since the existence of a given number of problems is, in many ways, a less abstruse measure than many other psychological measures, it

may be postulated that this number provides a rather direct evidence of the state of an individual's mental health. This is especially true if the norms are local and factors of sex, age, education, marital status, etc., are matched.

An Operational Model of Psychological Health

As has been previously indicated, the concept of psychological health is so complex as to preclude more than a general agreement on its conceptualization. One may expect, however, that verbal behavior patterns may be utilized as indicators of psychological health, especially if the rationale for such patterns is congruent to a general set of expectancies which have been previously determined. Thus, in the current study, an operational model of psychological health was conceptualized by the transposition of theoretical constructs into behavioral correlates--in effect, ascertaining which verbal expressions may be directly related to some of the things which are seen as psychologically healthy.

For our purposes, a "psychologically healthy" person, therefore, is a person who is predisposed to express his feelings in an open, unguarded manner irrespective of whether they are positive or negative. He is his own standard of reference and this constant self-awareness is evidenced by more verbal references to himself and to his

surrounds than to others. Further, he is capable of verbalizing his problems, and in the verbalization find solutions. Finally, he is aware of "being" and focuses his concern more on the present and on future events than those of the past.

Goals of the Current Study

The design of the current study necessitated that a preliminary goal be accomplished prior to continuing the experiment. This preliminary goal involved the isolation of two groups of Ss who could be labeled Psychologically Healthy and Psychologically Unhealthy in accord with E's operational definition of the terms. As no precedents were available for accomplishing this particular delineation, the initial goal, therefore, was to determine if various clinical instruments, when used in conjunction, could so isolate the two groups who would then be used in the latter phases of this experiment.

Since it was believed that the verbal behavior emitted in "healthy" and "unhealthy" dyads would have certain correlates with the mental health status of the dyad participants, a second goal was to predict the form which the acquaintanceship process would take when the mental health status of the dyad member is known beforehand. (Here, "form" is evidenced by kinds of verbal behavior.)

HYPOTHESES

- I. There is a positive correlation between the number of admitted problems and S/ISD scores.
- II. PH-PH dyads will score significantly higher than PU-PU dyads in the Expression of Negative Feeling, Expression of Positive Feeling, Reference to Self, Questioning Other Dyad Member, Reference to Present or Future, Direct Reference, Reference to Problems (Descriptive), Reference to Problems (Coping).
- III. PU-PU dyads will score significantly higher than PH-PH dyads in Reference to Others, Reference to Past, Guardedness and Explanations, Silence.
- IV. There will be a significant difference in the interaction scores for all sessions between each dyad type, i.e., PH-PH, PH-PU, and PU-PU.

METHOD

Subjects

All Ss were recruited from introductory psychology classes at Michigan State University during the Spring Term, 1967. A general announcement of this experiment (Appendix A) was read to each class section. Due to the shortage of available male subjects, only female students were considered for inclusion in the present experiment. There were 140 such respondents who comprised the Potential Subject Pool (PSP). This pool of Ss was then administered two psychological inventory-type tests, and on the basis of predetermined criteria (tests, scores and criteria are discussed in a later section of this study), a secondary pool of 56 Ss was formed from which the actual participants would be chosen.

Half of this secondary pool were tentatively classified PH; the remainder were tentatively classified PU and all were further encouraged via another general announcement (see Appendix B) to participate in the latter phase of this experiment. During the course of this announcement, the names of the desired participants were indicated. However, the respective classifications to which they had been assigned were not disclosed.

Finally, 24 Ss (12 Ss from the PH group and 12 Ss from the PU group) were induced to participate in the interactional phase of the experiment. Two individuals from the PU group were later eliminated due to physical illness and the remainder (12 PH Ss and 10 PU Ss) were randomly assigned to one of the Dyad Conditions, a schematic of which appears in Table I. Each dyad met for four sessions of 20 minutes each, resulting in 16 interactions in the PH-PH and PH-PU groups and 12 interactions in the PU-PU group.

Materials

The following tests were administered to establish an operational representation of the PH and PU states.

1. The Mooney Problem Check List (MPCL)
2. The Leary Interpersonal Check List (ICL)

Test Descriptions

The MPCL is not a test, per se. It does, however, provide a "census count" of the student's problems in two frames of reference, those involving the individual and those which are characteristic of the group itself (Mooney and Gordon, 1950).

The ICL contains 128 items and "can be used to measure persons' conscious descriptions of themselves or others; frequently (the) ... ideal self is the object of

TABLE I

INTERACTIONAL DATA FOR DYAD CONDITION

Dyad Condition	Sub-jects*	Dyads Formed	Sessions	No. of Total Interactions	Duration
PH-PH	8	4	4ea.	16	5 1/3 hrs.
PH-PU	8	4	4ea.	16	5 1/3 hrs.
PU-PU	6	3	4ea.	12	4 hrs.
Totals:	22	11		44	14 2/3 hrs.

*All Ss in this study were female.

description" (Bentler, 1965). Eight interpersonal traits are represented in the test items. These traits are:

- (1) Managerial - Autocratic
- (2) Competitive - Narcissistic
- (3) Aggressive - Sadistic
- (4) Rebellious - Distrustful
- (5) Self-effacing - Masochistic
- (6) Docile - Dependent
- (7) Cooperative - Overconventional
- (8) Responsible - Hypernormal

In this study, Ss were instructed to rate the items in terms of their self-concept, i.e., their actual self and in terms of how they would like to be, i.e., their ideal self. The difference between these two ratings was computed for each of the eight traits and this figure was squared. Thus, the sum of the eight squares provided a Self-Ideal Self Discrepancy Score.

Criterion Measures

The test results from all 140 respondents for each of the two tests were punched on Fortran cards. Of a possible 330 problems on the MPCL, a preliminary machine sorting disclosed the upper and lower quintiles. Thus, two restricted sample population were discriminated (N=28 each). Ss who quantitatively indicated problem totals within the range of the lower quintile of the distribution (Low

Problem Admitters--LPA) were tentatively classified PH; conversely, Ss who quantitatively indicated problem totals within the range of the upper quintile (High Problem Admitters--HPA) were tentatively classified PU. Table II depicts the statistical results of these two restricted groups from which the experimental Ss were chosen, as well as the overall results for all 140 of the initial respondents. Included in Table II are the S/ISD scores for the respective PH and PU populations as well as for all respondents (hereafter identified as the Potential Subject Pool--PSP).

Thus, the final criteria were established for subjects who would participate in the interactional phase of this experiment. PH Ss would be drawn from the PH population (lower quintile of the MPCL distribution, S/ISD score below the PSP mean), whereas PU Ss would be drawn from the PU population (highest quintile on the MPCL distribution, S/ISD score above the PSP mean).

The Dyadic Interaction

Ss who met the criteria for participation in the interactional phase and who expressed a willingness to continue were paired randomly (within the limits of their schedules) so as to form a dyad fitting one of the Conditions (PH-PH, PH-PU, PU-PU; see Table I). They were then instructed to appear at a given time at the Psychological Research Building, Michigan State University. Each pair

TABLE II

TESTING RESULTS FOR POTENTIAL SUBJECT POPULATION
(PSP) AND FOR PH AND PU GROUPS

Problems Checked (MPCL)					S/ISD Scores (ICL)		
Subjects	Totals	Range	Mean	St. Dev.	Range	Mean	St. Dev.
PH Gp. (N=28)	417	3-22	15	5	5-101	49	27
PU Gp. (N=28)	2433	66-153	84	22	44-359	138	80
PSP (N=140)	7198	3-153	51	17	5-359	87	65

was then introduced and seated in a standard interview room containing a table, two chairs, and a tape recorder. They were instructed that they could discuss any topic which they desired (see Appendix C) and that the discussion would be taped. E then turned on the tape recorder and left the room. At the end of 20 minutes, the session was terminated and arrangements were made for the next meeting of the dyad. This procedure was repeated for each of the eleven dyad pairs until a total of 44 dyadic interactions were recorded (16 + 16 + 12).

Scoring the Dyadic Interaction

The dyadic interaction was scored by coding the verbal behavior (or silences) into one or more of thirteen categories at intervals of fifteen seconds. These categories comprised such factors as expression of feelings and guardedness, references to self or others, references to problems, and expressions of events in the various temporal modes (see Appendix D). In any given interval, several categories could be scored (which was the rule rather than the exception), however no category was scored twice during the same interval.

To insure maximum reliability, E and an assistant scored tapes of a pilot and related study prior to conducting the experiment until an inter-rater reliability of at least .85 was achieved for each of the 13 categories. Of

the experimental interactions, E was responsible for scoring approximately 90% of the 44 interactions and his assistant scored the remainder. Prior to the scoring process, the tape boxes were masked to prevent knowledge of the type of dyad being scored and all subjects were identified on tape only by randomly assigned code numbers. Frequent inter-rater reliability checks were also conducted throughout the actual scoring in order to maximize the possibility that inter-rater reliability was applicable to all three types of dyadic interactions.

RESULTS

Pre-interaction Data

Table III depicts the relationship of the LPA and HPA groups to the PSP on the dimension of S/ISD scores. This relationship is expressed in the difference of the absolute number of Ss in either of the two experimental groups (HPA and LPA) who scored above or below the PSP mean score on the ICL (PSP S/ISD M=87). Expressed in percentages, these findings indicate that about 79% of the LPA group had a S/ISD score lower than that of the PSP mean while only about 10% of the HPA group had S/ISD scores lower than the PSP mean. This difference is significant at the .005 level ($t=7.9$).

A Pearson's "r" computed from the original data indicated a correlation of $r=.72$ between the MPCL and ICL scores of the PH and PU populations. Hypothesis I is, therefore, supported.

Interaction Data

Table IV depicts the means of the scores as achieved by the various dyad types in each category when the scores for all sessions were totaled and divided by the number of

TABLE III

RELATIONSHIP OF LPA AND HPA S/ISD SCORES
TO PSP S/ISD MEAN SCORE

	No. of Ss scoring above $\bar{PSP}$ mean ($\bar{X}=87$)	No. of Ss scoring below $\bar{PSP}$ mean ($\bar{X}=87$)	Sign. of diff. between groups
LPA Group	6	22	.005*
HPA Group	25	3	

* $t=7.9$.

TABLE IV

MEANS OF CATEGORY SCORES BY DYAD TYPE
OVER ALL SESSIONS

Dyad Type	PH-PU 16 sessions)*	PU-PU 16 sessions)	PH-PH 12 sessions)	Sign.** (col. 2&3)
Category				
I. Expression of Negative Feeling	4.4	2.8	4.0	n/s
II. Expression of Positive Feeling	5.0	5.6	5.7	n/s
III. Reference to Self	54.7	51.3	57.5	p<.05
IV. Questioning Other Dyad Member	23.7	20.8	21.8	n/s
V. Reference to Present or Future	47.9	44.3	50.4	n/s
VI. Direct Reference	2.8	1.6	1.2	n/s
VII. Reference to Problems, Descriptive	1.5	2.6	3.6	n/s
VIII. Reference to Problems, Coping	.18	.08	1.3	p<.05

*All sessions in each dyad type lasted for 20 minutes.

**Cross-category significance determined by χ^2 median test.

TABLE IV--Continued

Dyad Type		PH-PU 16 sessions)*	PU-PU 16 sessions)	PH-PH 12 sessions)	Sign.** (col. 2&3)
Category					
IX. Reference to Others		53.4	60.4	49.1	p<.01
X. Reference to Past		44.4	45.4	39.8	n/s
XI. Guardedness and Ex- planations		12.6	14.0	10.1	p<.05
XII. Silence		.06	.08	.00	n/s
XIII. Miscellaneous Verbal Sounds		17.4	20.3	19.4	n/s

*All sessions in each dyad type lasted for 20 minutes.

**Cross-category significance determined by χ^2 median test.

recorded sessions. A Kruskal-Wallis Analysis of Variance by Ranks Test indicates a significant difference in the three dyad-type interactions as reflected by the relative ranks of the mean scores ($H=9.13$, $p<.025$).¹ In essence, this indicates that there is a distinct difference in the kinds of verbal behavior occurring in each of the three types of dyadic interactions. Hypothesis IV is supported.

A comparison of the individual category scores for the PU-PU and PH-PH interactions was also effected. A χ^2 median test using Yate's correction for continuity (Guilford, 1965) was utilized and the results are shown in column 4, Table IV. This column indicates that there are significant differences (at various levels) in the scores achieved by the respective dyad types in Categories III, VIII, IX, and XI, i.e., in Reference to Self, Reference to Problems (Coping), Reference to Others, and Guardedness and Explanations. Table IV also notes that while the median test failed to indicate significant differences in the remaining categories, the direction of the means in each category is in the hypothesized direction. Hypotheses II and III are, therefore, partially supported.

The total interaction scores (sum total of the category scores coded for all sessions by dyad type) were as

¹The data does not meet the assumptions for analysis by parametric tests since sample sizes were unequal and the sample variances were found to be non-homogeneous.

follows: PH-PU=4,295; PH-PH=4,211; PU-PU=4,342. The latter total is interpolated since there were only 12 sessions of this type as opposed to 16 sessions in each of the other two dyad types.

DISCUSSION

The current study tends to bear out Rogers' (1961b) speculations that the communication of "mentally healthy" persons is mainly an expression of the immediate, present self. "Mentally unhealthy" subjects tend to avoid self-references in the process of disowning or repressing their feelings and thereby characteristically express more references to external, non-self materials as well as about others.

Similar findings are reported by Stollak et al (1967) in a study involving single individuals "free-associating" into a tape recorder in a bare room. He and his colleagues found, however, that "healthy" individuals made more "direct references" (category VI in the current study) whereas the trend noted in this study was to the opposite. This finding, while not statistically significant, nevertheless lends substance to Weintraub and Aronson's (1962) position that "direct references" are a form of defensive behavior.

It is also possible that Stollak's experimental design, i.e., one person "free associating" as opposed to two persons interacting, accounts for the different findings. In an interpersonal situation, the focus is necessarily

more upon the behavior of the other person as is not possible when a person sits alone in a bare room. Thus, defensive behavior may take other forms in single-person situations, e.g., silence, a form of behavior found to occur infrequently in the current study and not at all in the healthy dyads.

An additional finding in the present study is at variance with that reported by Stollak et al. He noted that Low S/ISD persons talked more than individuals with High S/ISD scores. In the current study, the totals of the coded responses were extremely close (where the PU-PU response totals were interpolated). Even though the verbalization of both members was coded as if it was emitted from one person, the varieties of dyad types utilized in the present experiment should have provided evidence of this if it is a characteristic of unhealthy relating styles. The fact that this was not indicated suggests that most of the dyad types interacted at about the same levels of intensity. One may stipulate, however, that there are more kinds of behavior occurring in dyads as opposed to that noted with single individuals. It seems that a wider variety of expressions, both of the healthy and unhealthy sort, occur. This may have some implication upon the relative merits of psychoanalytic vs. an interpersonal learning form of psychotherapy.

As in a therapy dyad, the contribution of the PH member in a PH-PU dyad is apparent when the mean scores of Table IV are examined. This dyad type, similar in some ways to a beginning therapy situation, represents generally the "middle ground" between the two extremes of the PU-PU and PH-PH dyads. One conclusion which may be drawn is that the PH-PU dyad reflects an on-going change in interaction style toward the healthy end of the spectrum. This agrees with a similar phenomenon reported by Carson and Heine (1962) in therapy dyads.

What, therefore, can be said about the effects of mental health on the acquaintance process in dyads? If we assume that the acquaintance process is an important preliminary determinant in the protracted growth of all interpersonal relationships, it would seem that those dyads where at least one of the members is "mentally healthy" stands a better chance to develop into a mutually beneficial relationship. Most therapists, of course, have long been aware that two or more unhealthy individuals may also be deeply involved in a continuing interpersonal relationship. Yet the current study indicates that the potential for change and growth is considerably less in unhealthy dyads since the members are oriented to the past, to a denial of their own feelings, and to a general guardedness in communication style and content.

In review, it is to be noted that this study incorporated several design features which probably had considerable influence on the outcome; therefore an awareness of the implications of these features should be effected since they limit the range to which the results may be generalized. Briefly, these design features included (1) the restriction of the subject population to members of the female sex, (2) the utilization of a non-task, non-goal (unstructured) form of interaction, and (3) the selection of the PH and PU subjects from the extremes of the MPCL distribution.

The summary effect of the first two features is that the experimental interactions of this study involve female strangers in the initial phases of the acquaintance process. Whether the results would be significantly different if male subjects had been used is a matter of conjecture. It seems possible that there could be sex-based difference in the means of the various category scores. Yet, since the current hypotheses were partially supported, one may equally assume that comparable data obtained with male subjects would enhance the significance of the findings rather than detract. In any case, a replication of the study using both male and female subjects would resolve the issue.

With respect to the unstructured vs. task-oriented interaction, a review of the literature also fails to disclose any previous research in dyadic relationships which

does not implicitly involve subjects performing some task or pursuing some goal in the interaction sequence. It is the experimenter's belief that to incorporate goals and tasks in acquaintance process investigations inherently restricts and predetermines the form of the interaction, a point of view which is supported by Borgatta (1960) and Kanfer (1965).

Kanfer, (1965) for instance, found that the assignment of roles or tasks invariably resulted in an "imposed unevenness" in the available time for each participant to talk. He further noted that this imposition "results in the exchange of different information than between two partners who participate in an unstructured interaction (a friendly conversation)." Additionally, Borgatta (1960) reports that the purpose of the group determines which group member will be prominent.

From a theoretical point of view, an immediate criticism is that the method of selecting subjects is in accord with the Continuity Model of Psychopathology (Buss, 1966) and that the normal-neurotic-psychotic progression is a gross oversimplification of the mental health picture. A close examination, however, of the operational model of psychological health as used in this study will reveal that the Continuity Model does not apply since there is a specific avoidance of such labels as "normal," "neurotic," etc. In effect the person is pre-judged as "healthy" or "unhealthy"

by incorporating his own statements (admitted problems) into a normal curve encompassing 140 other statements.

This position would also question the usage of "admitted problems" as an indicator of mental health since there may, in fact, be an "unhealthy" need to appear healthy, i.e., problem-free. In the current study, however, the Potential Subject Pool comprises over one-third of the total distribution and is sufficiently large to minimize this effect.

Finally, the statistical literature reflects many cautions which the experimenter must be aware of in choosing his subjects from the extremes of distribution. Evidence in the current study, however, indicates that LPA people are also significantly self-satisfied as reflected by their low S/ISD scores whereas HPA people have significantly greater amounts of self-dissatisfaction. Additionally, Block and Thomas (1955) found that self-satisfaction is positively correlated to several other indicators of mental health, e.g., social adjustment and ego control. The inference, then, which is clear from the results of the current study, is that healthy individuals have empirically less problems than the average or mid-range of the MPCL distribution.

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APPENDICES

APPENDIX A
INITIAL ANNOUNCEMENT OF THE EXPERIMENT
TO STUDENTS

We are conducting a research study which initially involves the compilation of personality data from a large segment of the college population. We feel that the members of this class are representative of this population and we urge you to participate in a project which may provide you with a stimulating opportunity to learn and to make new acquaintances. Most importantly, you will have the satisfaction of knowing that you have contributed to the fund of psychological knowledge, the results of which may directly affect an increase in our understanding of human behavior.

The requirements are simple and you will be given one (1) hour of research credit. Initially, we would like each of you to complete two personality-type tests which will be passed out at the conclusion of this announcement. Instructions for taking the test will also be given at this time. These tests are the Mooney Problem Check List and the Leary Interpersonal Check List.

In a few days, some of you will be asked to participate in the second phase of this study. At this time, you

will have an opportunity to become acquainted with other members of your class and you will each earn an additional two (2) hours of research credit.

Thank you for your attention.

APPENDIX B

ANNOUNCEMENT OF THE SECOND PHASE OF THE EXPERIMENT

The following concerns the second phase of the personality research study for which you have already taken two tests, and have received one hour of research credit. The people whose names I will read off presently are asked to participate in the second phase of the experiment. This phase will require one hour and twenty minutes of your time, for which you will receive two hours of research credit.

We are doing an experiment concerned with two-person relationships, called dyads, and we think you will find it exciting and rewarding to participate in this phase of the experiment.

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

In the blank schedule which I will give you after class, 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 master schedule has been planned, we will

notify you of your regular appointment times and where to go. It is most important that you keep your appointments and if you are unable to do so, please notify us as far in advance as possible.

If you do not care to participate in this phase of the experiment, please sign your name on the schedule sheet, leave the schedule blank and return it to me.

Those persons asked to participate in this phase are as follows: (List of 56 names read).

APPENDIX C

INSTRUCTIONS FOR PARTICIPATION IN THE DYADIC INTERACTION

(Each pair of Subjects are introduced to each other at the beginning of their first scheduled session.)

During this, the concluding phase of this experiment, you have been asked to report here in the Psychological Research Building so that a recording of your interaction may be made. You will always be interacting with the person with whom you have just been introduced and, including today, you will have an opportunity to meet and talk with this person for four sessions of twenty minutes each.

In order that your respective identities may be held confidential from the persons who will listen to the tape, you have each been assigned a code number which is written on the small card in front of you. At the beginning of each session, I would appreciate it if one of you would say something like the following (using, of course, your own code numbers): "This is F-7 and F-11, session number 1 (or 2, etc.)."

When we are ready to begin, I will leave the room for the next twenty minutes and I would like you to feel

free to discuss any topic in any manner you wish. Anything you may say here is confidential and will not be disclosed to anyone excepting myself and one of my colleagues who is assisting me. Again, let me stress that you are totally free to interact in any manner you wish--you may talk or not talk, the choice is entirely yours.

At the end of twenty minutes, I will return, knock on the door, enter, and we shall then terminate the session until the next time. If there are no questions, I will see you in twenty minutes.

APPENDIX D

SCORING CATEGORIES

Category I: Expression of negative feeling.

Category II: Expression of positive feeling.

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 either category 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 negative and positive expression of feelings as scored in these categories are:

Example (Cat. I): "That prof really bugged me."

Example (Cat. II): "Man, he has this boat ... and
is it groovy."

Category III: Reference to self.

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

Example: "We aren't going this weekend because
I've got something else to do."

Category IV: Questioning of other dyad member.

Any question directed to the other dyad member but excluding all non-interrogative statements. This category was always scored jointly with category IX.

Example: "Where did you get that dress?"

Category V: Reference to the present or future.

Any statement by Ss about a present or future event, feeling or situation.

Example: "From here on, I know what I have to do."

Category VI: Direct references.

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

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

Example: "I wonder if the recorder picks up my stomach-growls."

Category VII: Reference to problems, descriptive.

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

Example: "I'm afraid his mother hates me."

Category VIII: Reference to problems, coping.

Any reference made by Ss to an apparently positive means of coping with an actual or hypothetical problem in their personal lives.

Example: "I'm going to see her this weekend and see if we can settle that issue for good."

Category IX: Reference to others.

Any reference to a person other than the S who was speaking, whether known or unknown to her, but excluding the E.

Example: "He's a flower-child but the rest seem like weeds to me."

Category X: Reference to the past.

Any statement by Ss about a past event, feeling, or situation.

Example: "They got married last Christmas."

Category XI: Guardedness and explanations.

Any use of qualifiers, retractions, and explanations regarding statements about feelings, situations and events.

Example a. Phrases, words or clauses indicating uncertainty. "I guess you think he's a beast."

Example b. The use of modifiers that partially or totally retract from the immediately preceding statement. "That's how it is ... more or less."

Example c. Words or phrases which introduce an element of vagueness. "One might call him my casual boyfriend."

Example d. Words or phrases which indicate a causal relationship. "Well, momma said I couldn't so I didn't."

Category XII: Silence.

Any interval of 15 seconds during which no words or sounds were uttered by Ss.

Category XIII: Miscellaneous verbal sounds.

Any expression of sighs, singing, laughter, expletives, etc. (This category is essentially a "catch-all" for unimportant or unscorable references and is not further analyzed.)

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