Parental communication, particularly in the areas of cognitive clarity and affect, has been implicated in the etiology of psychiatric disorders in children. This paper reports a method for studying Healthy Features in parental communication, aspects of verbal style that counteract a child’s exposure to genetic and social environmental risk factors. A set of coding categories was applied to Rorschach protocols from 61 parents of 10-year-old boys selected from the ongoing University of Rochester Child and Family Study to be at risk for the development of severe mental disorders. One parent in each family had previously been hospitalized for a mental disorder. Healthy Features measures were developed that correlated with criterion teacher and peer ratings of the child’s school adjustment. Positive attentional and affective features of parental communication were found to occur independently of parents’ psychopathology. They also add significantly to Communication Deviance in predicting offspring adjustment, indicating that beneficial and pathogenic communication are separate domains of parenting. (Table 1 provides a detailed summary of the 11 Healthy Features categories.) (Author/JAC)
Healthy, Beneficial Communication in Parents of High-Risk Children

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Abstract

This paper reports a method for studying Healthy Features in parental communication, aspects of verbal style that counteract a child's exposure to genetic and social environmental risk factors. A set of coding categories was applied to Rorschach protocols from parents of ten-year-old boys selected to be at risk for the development of severe mental disorders. One parent in each family had previously been hospitalized for a mental disorder. Healthy Features measures were developed that correlated with criterion teacher and peer ratings of the child's school adjustment. Positive attentional and affective features of parental communication were found to occur independently of parents' psychopathology. They also add significantly to Communication Deviance in predicting offspring adjustment, indicating that beneficial and pathogenic communication are separate domains of parenting.
Healthy Features

Healthy, Beneficial Communication in Parents
of High-Risk Children

Introduction

This paper reports on a study of Healthy Features in the communication of parents, features that facilitate the development of competence rather than psychopathology in their children. It identifies healthy, ameliorative aspects of parental communication that are "salutogenic" (Antonovsky, 1979) or beneficial to children who would otherwise be at high risk for the development of mental disorders. The sample families are participants in the University of Rochester Child and Family Study (URCAFS; Wynne et al, 1982), a study of families where the child is at risk for severe mental disorders due to diagnosed mental disorder in a parent.

Healthy Rearing Environments

Parental communication has been implicated in the etiology of psychiatric disorders, particularly schizophrenia, in children both with and without a diagnosed or hospitalized parent (Hirsch & Leff, 1975; Jacob, 1975; Liem; Mishler & Waxler, 1966; Riskin & Faunce, 1972; Schultz, 1976). Two important facets of parental communication are cognitive clarity (Jacob, 1975; Doane et al, 1978) and affect (Vaughan and Leff, ). Both of these domains of communication have proved important in the URCAFS families. In the area of communication clarity, Doane et al ( ) found that deviant parental communication styles are correlated with poor...
child outcomes at age ten. Positive and benign parental attributions have also proved beneficial (Yu, 1979).

Recently research has focused on "invulnerable" children (Anthony, 1972, 1974) who flourish in the face of risk factors, on ways that families and social supports in school and community may protect children from breakdown (Rutter, Werner et al.), and on how one or both parents can compensate for pathogenic biological or environmental influences.

It was long suspected that a fortunate family environment could insulate a child from risk, and that rearing variables are important determinants of the expression of genetic risk. The variability of family environments was noted, even within a single family of offspring with differing degrees of psychopathology (e.g., Pollin et al., 1966). The observation was also made that relatives of schizophrenics tended, as a group, to be creative and interesting individuals (Karlsson, 1973) and that creative artists might share the "divergent" cognitive processes of schizotypic individuals (Barron; Megaro, ). What environmental factors could allow a person to be spared breakdown, or possibly even to experience benefits of an inherited predisposition to mental disorder?

Early explanations for "invulnerable children" looked toward the physiological or psychological makeup of the spared youngster, suggesting that the well child was robust and physically active, stress-resistant, or able to seek social contacts outside the family. Such explanations neglect the possible role of positive
factors in the family.

Singer and Wynne (1965; Singer, 1968; Wynne et al, 1977), in addition to specifying parental communication deviances predicting the development of schizophrenia in offspring, also point to the possibility of mitigating factors in the family environment. Indirect evidence comes from the fact that the severity of a child's disorder depends on the combined levels of Communication Deviance in the parents. Singer (Singer and Wynne, 1965) has also noted how the transactional styles of parents may aggravate or counteract one another: a constricted but clear parent may compensate for the scattered productions of the other, or a parent with a business-like orientation may compensate for a vague and anxiety-laden spouse. The behavior of a parent may vary over time or across situations; spouses' styles may differ from each other; or, parents may be different with each child.

The present research investigates positive transactional processes by which parents contribute to the development of competent children. The healthy communication described here is assumed to be a part of "normal" family functioning. Elements of healthy verbal style can also be found in a context of pathology; any conversation has varying levels of clarity, for it is common knowledge that even the most chronic psychotic patient does not "talk crazy" all the time. Similarly, "normal" subjects seldom achieve perfect clarity.

Al-Khayyal (1981), also working with the URCAFS subjects, studied a set of healthy transactional behaviors occurring in the three-person context of the consensus Rorschach procedure.
Healthy Features

Loveland, Wynne, & Singer, 1963; Singer, 1968, Wynne, 1968). Al-Khayyal's Healthy Communication categories refer to ways parents orient their children to the family Rorschach task, make a transition from the instructions to the task itself, structure the task, acknowledge each other's productions, state their ideas of what an inkblot might look like, elaborate their remarks, reach agreement on what they see, and achieve closure on each card.

According to Wynne, Jones, and Al-Khayyal (1981):

It is our belief that "healthy communication" on the part of the parents is a domain of family functioning that is important in promoting healthy adjustment in the offspring, particularly through providing the child with a model for developing the cognitive capabilities of attending, focusing, remaining task-oriented, and communicating ideas and feeling clearly and directly.... It is...to be expected that their presence in the family environment of the high risk child would provide him with the cognitive resources needed to make a healthy adjustment in academic and social spheres of his life. These familial cognitive resources would be particularly important for the child who already shows attention focusing skills deficits...(p.).

Psychological Health and the Rorschach

This paper studies healthy communicative behavior in parental transactions with an adult non-family member, the individual Rorschach procedure. Issues of health and normality on the Rorschach have generally been approached from an intrapsychic, trait-oriented interpretive perspective. Rorschach signs have have been discovered having positive prognostic value in clinical groups (Harris and Christiansen, 1946; Klopfer et al, 1954; Piotrowski, 1955), that are characteristic of less-disturbed diagnostic groups (Becker, 1956; Friedman, 1953), that occur in
gifted (Dudek, 1968; Piotrowski & Rock, 1963) or creative (Pine & Holt, 1960) individuals, and that are characteristic of college students who later become competent parents (Heath, 1976).

A healthy functioning construct in the assessment literature using the Rorschach and other instruments is level of ego functioning (Bellak et al, ) or ego strength (Barron, 1961; Beck et al, 1961; Frank, 1967; Korchin & Larson, 1977). Ego-strength is a loosely operationalized construct referring to psychological intactness, coping resources, resilience in the face of external demands, and ability to manage the expressions of primary process or psychopathology. Ego-strength may provide the capacity for controlled and adaptive regression in creative expressions (Bellak et al, ; Suler, 1967). In a child at risk, ego-strength could provide the cognitive controls for managing wobbly attention and unusual thought processes at the core of the schizophrenic, if not other, mental disorders.

Work on the Rorschach has concentrated on measures of form quality, normative perceptual accuracy, and developmental quality as measures of ego strength (e.g., F+2 and other measures of form level). Additional Rorschach categories associated with healthy functioning are Human Movement (M), Populars (P), originals (O), Variation in Content, Form-Color (FC) responses, and developmental level of percepts. Texture responses (T) have been interpreted as signs of an interpersonal orientation toward others.

An important Rorschach approach to the Ego Strength or ego control construct is Holt's (1970, 1977) index of adaptive regression, Defense Effectiveness. This measure analyzes both
symbolic Rorschach content and styles of defensive handling of this content; it purports to reflect an individual's ability to exercise control over libidinal or aggressive primary process material. When measured in college students, it is predictive of later high functioning as a parent (Heath, 1976) and is associated with artistic creativity (Pine and Holt, 1960).

The present work derives a set of Rorschach Healthy Features for parents that predict the concurrent social, behavioral, and cognitive adjustment of their ten-year-old sons as rated by teachers and by peers. A four-card abbreviated Rorschach provides a sample of parental communication. The inkblot task samples parental styles of naming, identifying, explaining, and justifying, and is considered an analogue of language games involved in parenting. The Healthy Features categories code ways that a parent communicates clearly, is affectively involved with the tester, and helps rather than hinders in sharing and maintaining a focus of attention in conversing about the blot. A parent may do this by forming a clear list of percepts, engaging the tester directly, fulfilling the demands of the task, showing positive affect, and not adopting a "witholding" stance during the test. These features were hypothesized to counteract deviant communication and to lead to a child's skills of focusing attention, communicating clearly, and affectively engaging with others.

The Healthy Features categories were derived from a theoretical analysis of healthy family functioning, from previous
work on healthy Rorschach responses (Holt, 1970, 1977; Philips and Smith; Piotrowski 1955), and as contrasting (although not necessarily polar opposite) counterparts to categories of pathological (Devos, 1952; Elizur, 1949; Holt, 1977; Johnston & Holtzman, 1979; Miller, 1975; Rapaport, 1946; Watkins & Stauffacher, 1951; Weiner, 1966;) and pathogenic (Singer, 1973) Rorschach response.

Subjects

The subjects in this study are 61 families with ten-year-old sons from the University of Rochester Child and Family Study, an ongoing high-risk study following the development of a total of 147 male children, of which Dr. Lyman C. Wynne is the Principal Investigator. One parent in each family has, at one time, been hospitalized for a severe mental disorder, putting the child at risk to develop various forms of psychopathology. The families were intact at the time of initial selection for the study. This criterion resulted in the selection of a relatively highly-functioning group of patient parents, although 19% of the marriages in the sample had dissolved three years later.

The results reported here are from a subset of the families, those with a ten-year old child. All of these subjects are caucasian and from Hollingshead and Redlich's (Hollingshead, 1957) social class levels one through four (mean two-factor index of social position, 2.7, SD = 1.0). Mean age of the fathers at the time of testing was 41.4 (SD = 7.9) and of the mothers, 38.2 (SD = 6.6).
In thirty-nine of the families in the sample, the mother had previously been hospitalized; in twenty-two families, the father is the patient parent. Twenty-six of the patient parents received psychotic diagnoses (including schizophrenia and psychotic affective disorders), eleven were diagnosed as having personality disorders, and seventeen had other non-psychotic (including affective, anxiety, and somatoform) disorders. Diagnoses reflect the parent's condition at the time of hospitalization, prior to the beginning of the study. The level of both parents' functioning at the time of testing was evaluated according to the Global Assessment Scale (GAS) of Spitzer, Gibbon, and Endicott, a 1-100 scale where 100 represents "superior" functioning. The mean GAS scores of the well spouses is 85.7 (SD = 8.1). On the average, the well spouses are functioning well in all areas, with possible transient symptoms. The patient parents' mean GAS score is 69.6 (SD = 18.3). On the average, but with much group variation, they show some mild symptoms or difficulties in several areas of life, but are "generally functioning pretty well".

Procedures

The URCAFS families participated in a wide array of psychological, psychophysiological, and family-study procedures in addition to the Rorschach.

Rorschach Healthy Features Measures

Typed, verbatim transcripts were made from tape recordings of the four-card Rorschach transactions according to the procedure.
developed by Singer and Wynne (1974). Of the 122 parents of ten-year-olds, 112 had useable Rorschach protocols.

Transcripts were coded using the Healthy Features manual (Schuldberg, 1981). The coders using the manual were urged to take the role of the tester and to experience the impact of the subject's verbalizations. Key questions were: How is the subject helping me to share the percept and understand the flow of conversation? Is the subject sufficiently personally involved with the task to get and hold my attention? Is the subject providing instructions about how to share what is seen on the blot? Is the subject expressing and conveying a visualizable percept, or better, one which is vivid and unmistakeably recognizable?

Preliminary work resulted in a list of twenty four categories of hypothesized parental Healthy Features. Of these, thirteen were discarded because they occurred very rarely in these Rorschach protocols or because they were unreliable. This resulted in a list of eleven categories (Table 1).

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Insert Table 1 about here

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Child Adjustment

Criterion measures of the offspring's competence in the classroom were derived from two sets of measures previously gathered in a larger study of school-age children in Rochester (Fisher et al, 1981). Teacher ratings based on the Rochester
Teacher Rating Scale (Rubenstein & Fisher, 1974) had been reduced to four dimension scores. Peer ratings were based on a classroom sociometric instrument, the Rochester Peer Rating Scale (Rubenstein, Fisher & Iker, 1975), reduced to four factor scores. The criterion teacher and peer measures of child competence in this study are composites of the teacher and the peer factor scores.

Other Rorschach Variables

The Rorschach protocols used here had been scored independently by other investigators for a number of Rorschach variables. Some of these are traditional "formal" Rorschach scores associated with healthy functioning. The scores for Beck Good Form Level (F+; Beck et al, 1961), and Human Movement (M), are used in the analyses.

The Rorschach protocols were also scored independently on the Delta Index (Watkins and Stauffacher, 1952) of deviant verbalization. This measures the formal thought disorder considered characteristic of schizophrenia (Johnston and Holzman, 1980). Another analysis employs a measure of Communication Deviance (CD) per transcript line (Wynne et al, 1977), derived from another independent scoring of the protocols.

Minnesota Multiphasic Personality Inventory

Two Minnesota Multiphasic Personality Inventory (Hathaway and McKinley, 1967) scales related to healthy functioning were examined, the 68-item Barron (1953) Ego Strength (Es) scale and the "K" correction scale. While high "K" scores may reflect
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defensiveness, they can also indicate intact ego-functions successfully inhibiting the expression of pathology (Dahlstrom & Welsh). Scores on the MMPI Schizophrenia (Sc) scale were also examined. This scale is used as an index of schizotaxia or "schizophrenia-proneness" (Meehl, 1962; Barron, 1961).

Healthy Communication

Another analysis used measures of Healthy Communication (Al-Khayyal, 1980) in the three-person context of the Family Rorschach procedure.

Methods

Reliability

Coefficients of inter-rater reliability were computed separately for each category. Agreement was assessed on a unit by unit basis to ensure that the coders agreed or disagreed in detecting the same class of verbal behavior at the same place on the protocol. Reliability was computed as the percent agreement between raters. This is a measure that disregards coders' agreement on the absence of a category.

Construction of Measures

The tabulations and ratings of each parent's healthy Rorschach responses were reduced to measures summarizing the entire protocol. For behaviors coded as present or absent, measures were computed as the frequency of the behavior divided by the number of codeable units in the protocol. For rating scale items, measures were computed as weighted sums of the ratings,
divided by the number of units. Ratios were computed with the number of units in the denominator to make the measures comparable across subjects having differing levels of verbal activity.

The distributional properties of each measure were examined. Since a number of the categories assess rare events, their distributions are negatively skewed. Square root transformations were used to reduce the skewness of Perceptual Orientation for fathers and Urging for both parents.

A composite Healthy Features score was computed for each parent as the mean of the individual standardized Healthy Features measures most correlated with child adjustment.

**Analyses**

Pearson product-moment correlation coefficients assess the relationship between the Rorschach Healthy Features measures and the teacher and peer ratings of child adjustment. One-tailed tests of significance were used in this first analysis, since it was explicitly hypothesized that all of the Healthy Features measures with the exceptions of the Limiting Verbalization categories would be positively related to child adjustment. In this analysis, correlations up to the .10 level of significance were examined.

Correlation was also used to test the relationship of the Healthy Features categories and other psychological test measures. One-way analyses of variance were conducted to assess Healthy Features differences between patient and non-patient, and between psychotic and non-psychotic, groups.
Hierarchical linear regression analyses separated the contributions of the Healthy Features composite scores and Communication Deviance to the variance of the child adjustment measures. In these analyses, each parent's level of Communication Deviance was entered into the analysis first, followed by the parent's composite Healthy Features score. The significance of the change in $R^2$ when the healthy composite enters the equation provides an index of the Healthy Features measure's separate contribution to child adjustment.

Results

The reliabilities of the Healthy Features categories range from 64% to 87%.

When measures based on the parental Healthy Features categories are correlated with the summary indices of offspring competence, seven father measures and five mother measures are related to the child's level of adjustment at the .10 level or better. Both fathers and mothers of highly adjusted children tend to tell the tester how to look at the blot and share their percept ("You have to turn the card this way"). They explain their responses fully in the inquiry portion of the test, and give responses freely, without urging from the tester and without repeated attempts to close the card and move on to the next. In subsequent tables, the two Limiting Verbalization categories,
Tester Uttering and Neutral Closure, are reflected in order that all positive correlations are in the healthy direction. These reflected Fluency measures and health are correlated.

Fathers of well-adjusted children also tend to make a clear transition to each new percept and to label it as distinct ("I see a bat; and I see two antlers"). They provide locations spontaneously in the first viewing ("Here are two bears") and report percepts with positive affective connotations (puppies as opposed to skeletons). Mothers of adjusted children tend to engage attention by addressing the tester directly with forms of expression containing or implying the word "you".

Table 3 contains the correlations of the eight different Healthy Features categories related to child adjustment with four traditional psychological test indices of psychological health or intactness, the MMPI K scale, Barron's MMPI Ego-Strength scale, Rorschach F+Z, and Rorschach Human Movement responses.

F+Z is negatively correlated with the two Fluency items, suggesting that a normatively accurate or consensual way of perceiving the inkblots is not a prerequisite for healthy parental communication. Barron's Ego-Strength and Rorschach Human Movement, measures associated with artistic creativity as well as adjustment, are positively correlated with Healthy Features categories. Positive correlations with the MMPI K scale occur for fathers but not for mothers.
Table 4 contains correlations for test measures of psychopathology. Significant correlations in both the positive negative directions exist for the Healthy Features measures and Delta Index scores of Rorschach "thought disorder" in the same protocols. The negative correlation with positive Affect content is expected; one of the Delta categories refers to gory and morbid "Deterioration Color" responses. However, Delta's positive correlations (for mothers) with Perceptual Orientation and reflected Urging indicates that healthy transactional behaviors can exist side by side with deviant verbalizations, even the allegedly schizophrenic verbalizations of the Delta Index. Healthy Features are negatively correlated with high scores on the MMPI schizophrenia scale.

Healthy Features measures also occur independently of diagnosed parental psychopathology. In analyses of variance comparing psychotic vs. non-psychotic patient groups, the only significant difference was that non-psychotic mothers did in fact engage in more Perceptual Orientation than their more disturbed counterparts (F[1,16] = 5.86, p = .03). However, in analyses comparing patient and non-patient parents, the former patients engaged in more healthy Rorschach behaviors than their non-hospitalized spouses for fathers' Locating (F[1,56] = 3.61, p = .06) and for mothers' reflected Neutral Closure (F[1,53] = 4.71,
Healthy transactional behavior with an adult stranger in the individual Rorschach context does not depend on the absence of psychopathology as diagnosed and treated in the past. However, as the third column of Table 4 shows, the Healthy Features categories are positively related to the parent's current functioning, as measured by the Global Assessment Scale.

Finally, the last column of Table 4 indicates that the Healthy Features Measures are in general negatively but not significantly related to Communication Deviance (CD). This measure of disturbed parental transactional behavior, predictive of the development of schizophrenia in offspring in other samples, has already been shown to be negatively correlated with child adjustment in these families (Doane et al., ).

Hierarchical regression models were constructed with Communication Deviance entered first into an equation predicting child adjustment, followed by a Healthy Features composite7. The composite Healthy Features measure adds significantly to Communication Deviance for each parent in predicting offspring adjustment for three of the four analyses (Table 5). The father

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Insert Table 5 about here
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Healthy Features composite adds significantly to father CD in predicting both teacher and peer-rated offspring competence. For mothers, the Healthy Features composite adds significantly to mothers' CD in predicting peer but not teacher ratings of child
Healthy Features

competence ($p = .13$ for teacher-rated adjustment). Healthy and deviant communication appear to be separate domains of functioning. They can co-occur in the same person and in the same conversation, and they have separable effects on the child's development.

The Rorschach Healthy Features measures are also related to a measure of healthy functioning and communication in the context of the family Rorschach. Significant relationships exist between the Fluency variables and parents' scores on Al-Khayyal's (1980) transactional Healthy Communication measure. [report r's?]

Discussion

The URCAFS children have yet to reach the ages of morbid risk for many mental disorders, and true tests of whether these parental Healthy Features actually insulate a child from risk must wait. However, these children are already showing a range of adjustment, and part of this variance may be accounted for by Healthy Features of parental communication. Clear exposition, interpersonal orienting, task fulfillment, positive affective content in responses, and a Fluent, non-witholding, and cooperative (Lakoff, 1981) task process are important health-producing behaviors, separable from both pathological and pathogenic communication.

The most consistent results in this study are for the Fluency items, reflected Urging from the tester and reflected Neutral closure. These items are strongly related to child adjustment as rated by both teachers and peers, and they show the most
consistent relations to other test scores; they are not highly correlated with CD. These results were not completely expected. The Fluency categories are among the simpler verbal behaviors sampled in this study; Urging is the only tester behavior coded. These categories were coded sequentially and refer most clearly to the task process of the speakers' progress through the four cards.

It was initially believed that Neutral closure, coding speech acts clearly and cleanly terminating responses to a card, would be positively related to child adjustment, contrasting favorably with self-blaming or blame-externalizing strategies for ending one's remarks (e.g., "I'm too stupid to see anything else" or "There's nothing else in this mess"). Further work remains to differentiate styles of card closure and other forms of conversational orienting behavior. Yet, the results indicate that a global stance toward the task is of central importance, one of cooperative sharing versus withholding.

Verbal productivity per se does not seem to play the major role in predicting child outcome. While Fluency categories for both parents are highly correlated with productivity (Fathers' productivity: r = .67 with reflected Urging, r = .68 with reflected Neutral closure. Mothers' productivity: r = .50 with reflected Urging and .53 with reflected Neutral closure), they are more highly correlated with outcome than productivity is. It appears that it is not only how much one says but how one says (or declines to say) it that is important.

The patterns of correlations suggest that the parental
Healthy Features construct is not an inverse of either Communication Deviance or Thought Disorder, both types of deviant verbalizations occurring during the same Rorschach transactions. Two hypothesized Healthy Features measures, Commitment and Vividness, are rating scales designed to contrast with two aspects of Communication Deviance. These scales were successful in that they correlate negatively with CD8; however, they are uncorrelated with child adjustment at age 10 and were eliminated after the first set of analyses. These two "anti-CD" measures are also negatively correlated with Al-Khayyal's Healthy Communication measure, significantly for fathers. It remains to be seen whether these measures, related to CD but distinct from Healthy Features, will predict later offspring adjustment.

The Healthy Features measure most predictive of the sons' school adjustment are transactional in nature, and code very basic behaviors that maintain the process of discourse. Other measures (such as Vividness), less important at age 10, refer more to the communicative content of an utterance. Similar to Al-Khayyal's measure and conceptually related to Communication Deviance, they nevertheless do not affect the early adjustment of these families' offspring. Measures such as Vividness and Commitment are perhaps closer to more traditional trait Rorschach scores, although they do implicate the subject's role-taking ability and awareness of communicative impact (Singer, 1974). However, for the latency-age boys in this study, more basic forms of interpersonal cooperation and orienting are most important.

Continuing efforts need to be made toward grounding these
categories of Healthy Features in subjects' actual utterances, and in specifying the linguistic events that catch the coder's attention and assist in sharing what the subject sees in the world. This work provides an avenue of approach to the microanalysis of healthy parental transactional styles and to understanding the positive influences parents have on children. These Healthy Features suggest a stance in both research and clinical contexts emphasizing the strengths presented by families with a disturbed or potentially disturbed member.
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Author Notes

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Footnotes

1 A complete list and descriptions of all twenty-four original coding categories is provided in the coding manual (Schuldberg, 1980).

2 The unit of analysis is the transactional unit, organized around percepts given by the speaker. A percept is, broadly speaking, a particular thing seen by the subject. Certain similar responses to the same blot area scored identically in formal Rorschach scoring systems, for example a butterfly and a moth (Card I, W), are counted as single percepts.

A transactional unit is a section of talk (text on a transcript) that has been numbered according to predetermined criteria and is defined as follows:

We have defined the basic unit to be scored as the "transaction", which differs somewhat from the traditional Rorschach "response". We include everything communicated by the subject in describing a given percept and also other remarks interspersed before, during, and after the response itself. That is, all of the subject's communication is scored beginning immediately after the tester's comments with the presentation of each card, and continuing until the subject has begun to describe a different percept. Also included as a part of a "transaction" are later disqualifying remarks by the subject about percepts described earlier on the same card. The communication in and around each response in the "initial viewing" of each card is treated as one scoreable transaction, and the later "inquiry" about that percept is regarded as a separate scoreable transaction. (Wynne et al, 1977, p. 267)

Occasionally, subjects jump from percept to percept or return to talk about something seen earlier. The numbering on the protocol reflects this activity by repeating earlier transactional unit numbers.

3 Percent agreement is computed as follows:
% Agreement = \((\text{Agreement} / (\text{Agreement} + \text{Disagreement})) \times 100\)

Only agreement on the presence of a category is counted.

4The .10 level of significance was chosen for this preliminary analysis in order not to eliminate too many of the hypothesized Healthy Features categories in the pilot phases of the work. The ultimate goal of this research is to predict offspring adjustment in early adulthood, and the age-ten measures used here represent only preliminary criteria for putative measures of "salutogenic" communication.

5Perceptual Orientation was the next least reliable category (64%) followed by Urging (73%) and Commitment (79%).

6Despite the relatively lax criterion of significance used at this stage of the analysis, Table 2 as a whole presents a statistically significant set of relationships between the alleged Healthy Features measures and the two criterion measures. Of the 44 correlations in the table, 16 are significant at the \(p < .10\) level. The expected chance value is 7.

7Although the mother and father Healthy Features composites are used in this analysis, the individual Healthy Features categories appear to tap several distinct domains of functioning; they are not highly intercorrelated. For the seven-item father composite, Cronbach's alpha = .48; for the five-item mother composite, alpha = .50.

8Commitment and Communication Deviance are correlated \(-.41\) (\(p = .001\)) for fathers. The correlation approaches significance for mothers \((r = -.20, p = .08)\). Fathers' Vividness is correlated
- .43 with Communication Deviance (p < .001). Again, the correlation for mothers only approaches significance (r = -.20, p = .07). Both Commitment and Vividness are significantly and positively correlated with Al-Khayyam's Healthy Communication for fathers but not for mothers.

*9* I am indebted to David Gordon for conversations on this point.
Table 1.

**Summary of the eleven Healthy Features categories.**

I. Clear listing [Orientation During First Viewing] (Tabulations; coded for first viewing)

1) [01] **Transition to new percept** (Coded for each percept after the first per card).

Transition to new percept is coded when the subject, near the beginning of the transactional unit, tells the tester that he or she has stopped describing one percept and is beginning to name and explain something new. Such a transition may be made by the use of such words as "and", "also", "another".

The subject may also make a transition to a new percept by beginning the transactional unit with an explicit locating expression ("here", "this part", "the center") or instruction about how to look at the blot, also coded as **Locating** or **Perceptual Orientation**.

1) "It looks like a bat... 2) And it looks like a woman's dress."

1) "A Pagoda. 2) Over here are two brightly colored socks." (Also **Locating**.)

1) "A bat." 2) "Looking at it sideways I see a dog's head." (Also **Perceptual Orientation**.)

2) [02] **Locating.** This category refers to the subject's use of demonstrative pronouns or other simple location terms to tell the tester what specific blot areas are being used in the percept. The coder should be alert to the subject's use of "pointing words" containing explicit verbal location information, typically "here", "there", "that", "the middle". References to blot areas by shape or color are also coded: "The green area", "the rounded pieces", "the parts sticking up".

II. Personal Orienting [Relationship with tester: commands and questions] (coded for first viewing and inquiry)

3) [R1] **Perceptual orientation.** This category is coded when the subject tells the tester how to view or interpret the blot in order to see the percept. It refers to general instructions about how the blot must be approached for the percept to be shared, often in the form of or imperatives to the tester. The subject may provide Perceptual orientation in five different ways:

1) The subject tells the tester how to look at the blot:

"You have to turn it like this." "Squint your eyes and look at it
2) The subject informs the examiner about the system of perspective, the degree of magnification, or the scale used in seeing the percept. The subject may also describe the angle from which the percept is being viewed or tell the tester the spatial orientation or arrangement of the thing seen in the blot.

"You're looking down on it." "It's an aerial view." "I'm looking at it as if it's big." "It's kinda sideways." "It's upside down."

3) The subject explains to the examiner how to interpret the color qualities of the blot for the percept to be seen.

"I'm pretending it's in color."

4) The subject instructs the tester on how to move his or her focal attention along the blot in order to see the percept.

"And you can see its wing; follow that line up along this part here."

5) The subject explains that the tester must relax the constraints of photographic realism to see the percept.

"You have to use your imagination."

4) [R3] Attention catching by relating. This is coded when the subject attempts to engage the tester's attention by addressing him/her directly in a task-relevant way, for example by referring to the examiner as "You", "Doctor" or "Sir", by calling the tester by name, or by using polite imperative expressions where "you" is implied.

Subjects' use of "Doctor", "Sir", or the tester's name is extremely rare in the Rorschach transactions we have studied. More common is the use of imperatives or of the pronoun "you" in forms of address that engage the tester's attention. Expressions such as "you know", "y'know", and "you see", and commands such as "Look" and "See", although colloquial and commonly used as conversational filler, serve to keep the subject and the examiner engaged.

"Here you can see their little noses." "See. These are the paws." "Look. Here it is." "A dog, see, a little dog." "Also notice that its mouth is open."

III. Task Fulfillment. [Percept Ratings] (Rating scales)

5) [P-I] Commitment. This category rates the degree to which the subject maintains commitment to the meaning of the percept. It is based directly on the definition of the CD construct and rates contrasting test behaviors.
Singer (1973), has written that the impact of lowered commitment is to cause a listener to wonder about a speaker: Does he really mean what he is saying? The way in which the idea is phrased leaves doubt in a listener's mind about the status of the idea—has the speaker abandoned it, disqualified it, down-graded it, or intended it to be taken seriously. The speaker in various ways seems less than totally committed to the idea (p. 14).

Commitment may be weakened by overly qualifying or expressing uncertainty about the act of assigning meaning ("It sort of looks like", "It kinda resembles", "I think", "It could be", "Maybe"), weakening the meaning of the percept itself ("or something", "something like that", "kind of"), expressing ideas haltingly or hesitantly, harshly criticizing the fit of the percept with the blot or the percept itself, offering another alternative that weakens the meaning, or stating a response in negative form or as a question.

Anchor points

5 - The subject explicitly expresses strong commitment to the percept.

"It certainly looks like a bat."

4 - Subject provides a firm statement of the percept without qualification or uncertainty and lets meaning stand. This is the level at which Commitment is most frequently rated.

"It might look like a...." "It could be...."

3 - The subject mildly hedges the commitment to the percept, weakening it, making it less precise, or using qualifying expressions.

"It's not a very good coat." "Well, I dunno, it could look like...."

2 - Commitment is partially taken away, but overall the percept is left standing.

"A bat. No, it doesn't look like a bat." "Here's the legs, body, and tail, but I can't say what it looks like."

(P-II) Vividness. This category rates the degree to which the coder,
while reading the protocol, experiences the response vividly. Vividness may occur simply as the total effect of the response: "Two teenagers. Jitterbugging. They're leaning back on their heels." A simple percept may also be appropriately elaborated ("A black bird. It's flying." "Two clowns. They have sort of long heads and sharp pointy chins."). Raters heed their own mental images evoked by the wording in the response, and pay attention to the effect of verbs, adjectives, and adverbs adding to the immediacy of the response. Ratings may also reflect the affective intensity of the percept. Remarks coded as high on Vividness communicate an unmistakable and shareable content and engage the listener without distressingly raising the energy level of the transaction.

A percept is not made vivid by the mere obsessional addition of detail; a wordy response runs the risk of making what is seen more obscure. A highly vivid percept (Level "5") supplies the essence of what is seen on the blot and provides key characteristics of the percept that allow the coder to empathize with the subject and share the response. The specificity of the words used makes the content unmistakable, yet shareable. The percept not only has realism but is also described in a way that communicates a central feature of what is seen.

Anchor points

5 - Subject produces a superiorly vivid percept, clear and directly stated, and refers to a recognizable aspect of the blot. To be rated at this level, the percept need not be rare or original, but what is seen is described in terms communicating the central essence of the thing seen and creating an image that is sharp, discrete, occasionally startling, and grabs the listener.

"It's rounded around the edges like a Ritz cracker." "A raccoon. It's got the shading around the eyes." (Card VIII) "A ghost. It's saying 'boo' and there's his funny sunken eyes."

4 - The percept is quite good. The subject describes his or her concept clearly and briefly, and the percept is visualizeable and recognizable related to the blot.

"A jacket. It's got those big, you know, puff sleeves."

3 - The percept is ordinary. The description is clear and fits the blot, but not especially vivid. The subject may also elaborate a simple percept in a manner that is only slight, qualified, or stated as a question. Vividness is most commonly rated at this level and simple, unelaborated percepts such as "bats" and "rugs" are assigned ratings of "?".

2 - The percept is fuzzy, vague, incomplete, or unclear. It is indefinite but recognizable, and the coder can make out what the subject is describing. For this level to be rated, the percept
itself may be vague ("Some sort of creature"), or the subject may state it in an unclear way. Also rate at this level if the subject's description of the percept does not refer to easily recognizable attributes of the blot, or if the subject supplies parts or details of a complete percept without putting them together ("Eyes. Nose. Mouth.").

In remarks rated at this level, the subject may seem to be evasive and the percept somewhat neutral or bland in tone. In this case, the subject's elaborations actually decrease the vividness of an ordinary level "3" percept.

"Two men. They're doing something." "A mouth; a funny mouth." "A creature.... Something that flies."

1 - The percept is obscure, hard to identify, and very vague or unclear. The image itself may be indefinite or the subject may add remarks serving to make the percept difficult to share. The percept may be stated so vaguely that it is unclear what is being described, or it may be so idiosyncratic or bizarre that it is impossible to share what the subject sees.

"A fish, a fillet." "A face. It's gorgling."

7) Inquiry responsiveness. This category is rated only for the inquiry.

During the inquiry portion of the test, the examiner shifts to more direct questioning regarding what the subject saw and reported during the first viewing. According to the procedure used in gathering these protocols, the tester is to ask "What all suggested [a bat] to you?", although a wide range of tester probing may occur.

Most subjects take the tester's questions as a request that they acknowledge having seen the percept, locate it or some of its features on the blot, name some of its parts, justify their choice of the percept either by naming parts, telling what its determinants are (form, color, texture), or by commenting on the correspondence between what was seen on the blot and the appearance of such things in the real world.

Anchor points

5 - The subject acknowledges the percept and explains to the tester what he or she is seeing, giving its location as well as justifying the choice of percept by naming one or more of its parts, pointing out the major components of an integrative percept, or referring directly to the form or color of the blot.

4 - The subject acknowledges and locates the percept for the examiner, makes it clear what sort of thing is being seen, and names a part or detail of the percept.
3 - The subject acknowledges and locates the percept in a cursory manner, responding to the tester but supplying minimal information.

2 - The subject acknowledges the percept; however it is unclear from the transcript and location sheet exactly what was seen, or the tester has difficulty in obtaining some of the inquiry information.

1 - Subject forgets or denies the percept, sees percept in a new location or with the card in a new position, rejects the percept, is unable to locate it, does not comply with the examiner's instructions, or is unable to explain the percept to the examiner.

IV. Affect [Affect and Judgement]

3) [A-II] Enjoyment of task (Rating scale). This category refers to comments regarding the subject's mood or energy level as it relates to the Rorschach transaction. Subjects' affective reactions to the cards or task are also rated using this category. These are emotional responses or exclamations such as "Beautiful", "Horrible".

5 - Explicit enthusiasm or enjoyment regarding the task is expressed by the subject.

"I like this." "This is fun."

4 - Affective engagement with the task is expressed indirectly by the subject.

"I like these colorful ones." "Wow!"

3 - Neutral affect or back-handed expressions of positive feelings toward the task are expressed by the subject.

"This isn't so bad." "These are OK."

[laughs] and [smiles] noted on the transcript are generally rated at this level. [neg. corr. due to this?]

2 - Indirect, disagreeable evaluation of the task is expressed.

"How many more of these are there?" "Oh no!"

1 - Direct negative affect associated with the task is rated at this level. Included here are statements of being overwhelmed or physically or psychologically overtaxed by the transaction.

"I don't like this." "These depress me." "You're driving me mad."
7) [A-III] Affect content (rating scale). This scale rates the percept's overall emotional content and connotative meaning from pleasant ("5") to dysphoric ("1"). Some of the examples that follow are from DeVos (1952) and Elizur (1949).

The affect content of a response is communicated by the subject's choice of percept and use of descriptive words. The category of the thing seen (e.g., "snake"), its role (e.g., "mother bird"), its activity (e.g., "dancing"), or its descriptive attributes (e.g., "ominous clouds") may all contribute to the ratings in this category.

Anchor points

5 - Positive affective terms are used. The description may border on the Polyanna-ish, the goody-goody, or the counter-phobic.

"Playing pattycake" "Fluffy puppies doing a little dance."

4 - Mildly positive affective terms.

"A soft dog."

3 - Neutral or unknown affective content.

2 - Mildly negative terms. References to blood are rated at this level, as well as to undiseased organs, x-rays, and bones.


1 - Negative affective content.

"Cancerous tissue." "Bat. Part of its body shot off."

V. Limiting Verbalizations. [Sequencing]

10) [U] Urging by tester. This is the only category coding behavior by the examiner. It refers to all verbalizations by the tester that encourage the subject to see more things on a particular card. Common urging expressions are:

"Look at it a bit longer; something may come to you." "What have you found?" "What comes to mind for this one?"

11) [I] Neutral closure. This is one way that the subject may attempt to end the process of giving responses to the current card. It is coded whenever the subject closes the card clearly without blaming either self or blot.

("Anything else?") "No." "That's all." "That's it."
Table 2.

**Child adjustment and Healthy Features for fathers and mothers:** Pearson correlation coefficients.

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<tr>
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<th>Mothers Teacher Rating</th>
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\a Square-root transformed measure, fathers only
\b Square-root transformed variable, fathers and mothers

*= p \leq .10
* = p \leq .05
**= p \leq .01

N_{fathers} = 58; N_{mothers} = 54
Table 3.

**Correlations of Healthy Features measures and psychological test measures of the healthy personality.**

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* p ≤ .05
** p ≤ .01

*aReflected category.*
Table 4.

Correlation of Healthy Features measures and indices of pathological and pathogenic functioning.

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* p ≤ .05
** p ≤ .01

²Reflected category.
Table 5.

**Hierarchical Regression Analyses: Communication Deviance and Healthy Features as predictors of child adjustment.**

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