Self-esteem is defined within a context of self-other orientation, and an instrument is described which is designed to measure the evaluation of the self in relation to significant others using topological representations of self and others and involving limited verbal demands. The results of a program of research are described which emanate from an evolving theory of social self-esteem. The results suggest that self-acceptance and social acceptance are inextricably combined and raise serious doubts about the meaning of earlier results concerning self-esteem which were based upon verbal self-reports. (Author)
SELF ESTEEM: A SELF-SOCIAL CONSTRUCT

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Self esteem is usually defined as the individual's perception of his worth. In evaluating the self, however, few physical cues are available which provide a reliable basis for an estimate. Still, the individual has recourse to paired comparisons of the self and significant others; that is, self evaluation evolves in terms of social reality (Festinger, 1954). Self evaluation, then, emerges largely within a social frame of reference.

According to this definition of self esteem, if the social environment changes, a corresponding change in self esteem may be anticipated. It is now proposed that the person's response to the social environment is a function of self esteem. Self esteem mediates social stimuli and response (Social Stimuli → Self esteem → Response). It is proposed here that self esteem is a component of the self system which regulates the extent to which the self system is maintained under conditions of strain, such as during the processing of new information concerning the self. Thus,
for example, evaluations of either a positive or negative nature do not evoke immediate, corresponding action by the individual with high self esteem. New information is examined on the basis of its relevance and meaning for the self system and is disregarded if its meaning tends to be tangential. In this way the organism is somewhat insulated from the environment or is not completely subject to momentary environmental contingencies.

Persons with low self esteem, on the other hand, do not possess a well-developed conceptual buffer for evaluative stimuli. In Witkin's terms (Witkin, Dyk, Foterson, Goodenough and Karp, 1962), the person with low self esteem is field dependent; that is, he tends to passively conform to the influence of the prevailing field or context. Since the individual's behavior is directly linked to immediate environmental circumstances and is not mediated or differentiated and integrated by the self concept, he is thereby inclined toward inconsistency.

Thus, the concept of self esteem as described here is linked to the concept of personality integration as used by Lewin (1935). Development was described by Lewin as including an increase in the number of the relatively independent subparts of the person (differentiation) and increasing the unity of the person (integration or organization). Similarly, Piaget (1947) presents the concepts of assimilation and accommodation. It is anticipated that the behavior of persons with high self esteem is more integrated and that their
cognitive processes are characterized by a selective consideration of relevant social elements.

Communication and the Measurement of Self Esteem

Previous research concerning self esteem has not emphasized sufficiently the social nature of the self system. The failure to incorporate and weight social factors within the self evaluation framework may have contributed, in part at least, to the disappointing state of the investigation of self esteem.

A second shortcoming of earlier studies in this area is their descriptive nature, which, coupled with the serious shortcomings of the measurement techniques, have left the area at a low level of theoretical development.

Finally, and most seriously, previous research has largely involved a verbal self report measure of self esteem. Kelly (1955) qualifies his assertions continuously by pointing to the most tentative of his assumptions, that the subject's word labels for his constructs mean what the examiner thinks they mean. Finally, Kelly suggests (p. 268) that if a test "can be arranged to produce a kind of protocol which can be subjected to a meaningful analysis, independent of words, we shall have made progress toward a better understanding of the client's personal constructs." The approach used here involves a method of communication with limited verbal demands
and relies primarily upon rudimentary forms of abstraction which are assumed to predate verbal communication systems.

The approach is a confluence of the approaches of DeSoto and Kuethe (1959), Kelly (1955), and an evolving theory of self-other orientation. The measurement approach assumes that the human organism finds it expedient to order and categorize or to structure generally the multitude of self-surrounding stimuli. The processes used by the respondents are expected to be somewhat idiosyncratic, but owning to commonality among human experience, sensory processes, and classification systems, the evolving abstraction systems possess sufficient commonality that the basis of a communication system exists. Some of these processes include extent of separation between objects (Kuethe, 1962), number of objects in a category, and ordering of objects (DeSoto, London, and Handel, 1965).

The most relevant ordering process with regard to self esteem is what DeSoto, London, and Handel refer to as "spatial paralogic" and "linear ordering." It is observed that people are prone to place elements in a linear ordering to the exclusion of other structures, and that they handle linear ordering more easily than most other structures (Coombs, Raiffa, and Thrall, 1954; DeSoto, London, and Handel, 1960). Indeed, DeSoto, London, and Handel note that serial ordering proceeds more readily in a rightward direction than in a leftward direction. The tendency to attribute greater importance to the object placed at the extreme left position in a horizontal
display has been noted by Morgan (1944).

The measure of self esteem developed here utilized the serial ordering predilection of the subjects within a social context. (See Figure 1.)

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Insert Figure 1 about here
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The measure involves presenting a horizontal array of circles and a list of significant others (including the self) such as those used by Kelly (1955). The task requires the subject to assign each person to a circle. The score is the weighted position of the self. In accordance with the cultural norm, positions to the left are assumed to be associated with higher self esteem.

The item in Figure 1 is one of six items in the student form of the instrument. The other five self esteem items involve the following sets of significant others: (a) doctor, father, friend, mother, yourself, teacher; (b) someone you know who is a good athlete, someone you know who is a good dancer, someone you know who is funny, someone you know who gets good grades, yourself, someone you know who is unhappy; (c) an actor, your brother or someone who is most like a brother, your best friend, a dean of students, yourself, a salesman; (d) someone you know who is cruel, your grandmother, a housewife, a policeman, yourself, your sister or someone who is most like a sister; (e) doctor, father, friend, nurse, yourself, someone you know who is unsuccessful.
In a study involving 75 randomly selected students from grades 7 through 12, the split-half reliability (odd-even) was .80 corrected for length (Long, Ziller, and Henderson, 1968). Split-half reliability (odd-even) for the adult form was .85, uncorrected for length, in a study (Mossman and Ziller, 1968) involving 60 neuropsychiatric patients. Test-retest reliability for 86 sixth and seventh graders was .54 for the student form.

Validation

The measure of self esteem proposed here is assumed to involve social reasoning and a norm of hierarchical ordering of social objects in a horizontal line from left to right. This assumption was examined in a series of separate studies.

In the first of these (Ziller, Megas, and DeCencio, 1964), 45 patients in an acute neuropsychiatric treatment ward were presented with seven circular pieces of white felt cloth two inches in diameter. The circles were marked by symbols indicating the person they represented. These persons included nurse (N), nurses aide (NA), other patients in the ward (O), psychiatrist (P1), psychologist (Po), social worker (SW), and yourself (Y). A list of the symbols and their referents were placed on a table in alphabetical order for the subject's information. These were also read to the subjects. The subjects were instructed to arrange the circles on a black felt board, 2 x 2 1/2 yards, in any way that they wished.
In support of the serial ordering tendencies proposed by DeSoto, London and Handel, the majority of subjects arranged the symbolic circles in a straight line from left to right. By assigning weights to the left-right positions and calculating the mean weighting of the seven symbols, the resulting order of the symbolized positions was: psychiatrist, psychologist, social worker, nurse, nurses aide, other patients, and yourself. It is apparent that a left to right status hierarchy of the social objects emerges.

A similar analysis was made of the left to right location of a low status other person by college students using the student form (see Table 1). It was noted that the "unhappy" person was placed in the last position to the right 48% of the time; "someone you know who is unsuccessful," 56%; "someone you know who is cruel," 64%; and "someone you know who is flunking" 59%.

Further support for the assumption of a left to right paratactic was found in the association of the self esteem score as previously derived and a second technique of scoring. This involved the identification of the most negative, significant other for each set of significant others and calculating the distance, in number of circles, between the low status other and the self. (Only four items which involved a clearly differentiated low status other were included in this analysis. These items were a, b, d, and e.) This method
of scoring was suggested when it was noted in Table 1 that the low status other was sometimes located in the left position, indicating that arrangement of the self and others may be based on other than a left to right hierarchical ordering in some cases.

The correlation between the scores derived by these methods was \( r = .33, p < .05 \) (\( n = 163 \) male and female college students). Only the results with regard to males were statistically significant, however (\( r = .46, n = 61, p < .001 \); females, \( r = .14, n = 102, p < .10 \)).

A similar analysis of the two scoring methods was made using the adult form with male neuropsychiatric patients (Mossman and Ziller, 1963). The results corroborate the findings with regard to the male college sample (\( r = .56, n = 60, p < .001 \)).

In yet another study of the left-right serial ordering phenomenon, a children's form of the self esteem measure was used (Henderson, Long, and Ziller, 1965). The analysis involved the responses of 48 boys and girls ranging in age from 7 to 14 and who had applied for corrective training at a reading study center, plus 48 controls matched for age, sex, and general intelligence. The subjects were given a paper with a long horizontal line. They were next presented in random order six circles with pictures representing self, friend, and a "smart," "dumb," "funny," and "bad" classmate. The children were told to paste these symbolic circles in a row on the line. It was found that children placed the "smart" classmate to the left and a "bad" classmate to the right to a significant degree.
Evidence that the left-right serial ordering is not a phenomenon limited to persons within the United States is found in the analysis of the location of "someone you know who is unsuccessful" in the student form of item (e). With regard to 92 boys and girls from Form I of the M.V.D.H. High School in Vesakapatnam, Andhra, South India, the frequency with which the "unsuccessful" person was located in the positions from right to left was 74, 9, 4, 0, 1, and 4. With regard to an American sample of 94 boys and girls, the corresponding frequencies were 53, 17, 15, 3, 3, and 3.

Another test of the left to right hierarchical ordering assumption was the association between the weighted position of "yourself" among five others including "someone you know who is flunking," "the happiest person you know," "someone you know who is kind," "someone you know who is successful," and "the strongest person you know" under conditions where the social objects were to be arranged horizontally as in Figure 1 and vertically. In the vertical display, the higher position of the self is assumed to represent higher self esteem. The correlation between these two measures was .50 (n = 82, p < .05).

An analysis of the location of the lowest status other, "someone you know who is flunking," indicates (see Table 2) that the number of reversals in the placement of the low status other is reduced in the vertical arrangement (9% vs. 31%). The vertical arrangement may introduce greater item visibility, however.
A third approach to the validation of the social self esteem (SSE) measure was a correlational analysis of SSE with existing measures of the construct. The measures selected for comparison were those most frequently referenced in the literature (Wylie, 1961) and a more recent device developed for research purposes by Cutick (1962) and used by Diggory and her collaborators (Diggory, 1964). With the exception of the SSE, all the measures were based on self reports. Thus, the Bills-Vance-McLean Index of Adjustment and Values (1951) required the subject to rate himself with reference to each of 49 adjectives as to how often he was "this sort of person." Six-week test-retest reliability was .90 (n = 100).

Diggory's Self-Evaluation Questionnaire asks the subject the percentage of time that he expected to succeed in eight given situations. The reliability is not reported.

Coopersmith's Self-Esteem Inventory (1959) contains 54 items concerned with the subject's perceptions in four areas: peers, parents, school, and self. The form was modified slightly to make it more appropriate for a college population. The Self-Esteem score is twice the sum of the high self esteem items (as agreed upon by five psychologists) marked "like me" and low self esteem items marked "unlike me." Reported test-retest reliability after five weeks was .88.
In an earlier test of the relationship between the SSE and a single item, overall self evaluation (Ridgeway, 1965), a negative but not statistically significant relationship had been found ($r = -0.15, n = 100, p < .5$). Given the different theoretical frameworks and method of communication upon which the measures are based, a significant relationship was not anticipated in the present study. The purpose of this study in the program was to establish the independence of the SSE more systematically.

The correlation matrix for these three scales and the SSE for each sex is shown in Table 3. None of the correlations with SSE were statistically significant. Once again, sex differences are quite apparent in the intercorrelations among the measures. For male subjects ($n = 33$), the highest correlation, $r = 0.60$, was between Diggory's and Bills' measures. Significant correlations with regard to male subjects were also found between Diggory's and Coopersmith's measures ($r = 0.37$), and Bills' and Coopersmith's ($r = 0.46$). The only significant correlation found for female subjects ($n = 53$) was between Diggory's and Bills' measures ($r = 0.29$). These results are worrisome, even though they were anticipated. Yet, the results may be interpreted to indicate that the SSE and the other measures of self esteem are in different psychological domains. The SSE in contrast to the other devices is a non-verbal, "low visibility"
instrument, and also incorporates a social frame of reference.

One of the universal criticisms of the most frequently used measures of self acceptance is that they are about equally correlated with socially desirable responses as they are with each other (Crowne, Stephens, and Kelly, 1961). For example, the greater the tendency to give socially desirable responses, the less the reported discrepancy between self and ideal self.

Using the Crowne-Marlowe measure of socially desirable response tendencies (1964), and relating it to the SSE as well as Diggory's measure of self evaluation, correlations of - .36 and .65 (n = 24, p < .05 for both) were found for sophomore female volunteers for an experiment. Higher self esteem as measured by the Diggory device was associated with a tendency to give socially desirable responses. The opposite relationship was found using the SSE.

Self Esteem and Social Acceptance

Turning now to construct validation procedures, one of the earliest studies in the series examined the frequently hypothesized relationship between acceptance of self and acceptance by others (Mann, 1959; Wylie, 1961). In one of the reported studies, Coopersmith (1959) found that fourth, fifth, and sixth graders showed a significant positive correlation (.34) between self esteem and popularity. The rationale for the relationship is often
tautological (see Rogers, 1951, p. 520) but the findings are nevertheless consistent. Within the present framework, self acceptance and the acceptance by others are perceived as inextricable components of social self esteem.

The subjects in this study (Ziller, Alexander, and Long, 1964) were 321 sixth grade students in 11 classrooms from four elementary schools. The subjects were all white, and the composition of the classes remained unchanged throughout the school day. All subjects completed a sociometric item asking them to name the five children with whom they would most like to play. Twenty-five children (17 boys and 8 girls) who were unchosen and 25 children (17 boys and 8 girls) who were most highly chosen from the same classes as the unchosen were administered one item of the social self esteem measure. The social set included "doctor," "father," "friend," "the person with whom you are most happy," "mother," "yourself," "the most successful person you know," and "the person with whom you are most comfortable." The directions were read to the subjects. The mean position of the popular children (1 being the left position) was 3.8 and of the unpopular 5.7 ($\bar{x} = 3.87, p < .005$).

Success and Failure of Political Candidacy and Self Esteem

One of the difficulties of studying changes in the self concept is that conditions associated with changes in the self concept
are not readily generated and are rarely encountered under circumstances amenable to statistical analysis. A political election, however, provides an exceptional opportunity to study changes in the self concept associated with winning as opposed to losing the election.

One month prior to the 1967 state election in Oregon, 44 candidates for the state legislature were administered the first four items of the adult Form II of the SSE. The same items were again administered to the same candidates approximately one month after the election. Each candidate was approached individually and completed the form in the presence of the data collector. The results are provided in Table 4. Fifteen of the 23 winning candidates increased in self esteem as opposed to 8 of the 21 losing candidates. Moreover, 11 of the 21 losing candidates decreased in self esteem as opposed to 4 of the 23 winners. The results are significant at the .05 level of confidence ($X^2 = 5.99$).

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Insert Table 4 about here

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Self Esteem and Consistency of Social Participation

In an experiment by Mossman and Ziller (1968), it was hypothesized that self esteem is: (1) positively related to frequency of participation in group discussion, and (2) is associated with
the organism's consistency of response. Relative to the first hypothesis, it has already been demonstrated that high self esteem is associated with social acceptance. This finding suggests that in a group discussion the individual with high self esteem will receive and expects to receive verbal and nonverbal cues from the other members which invite or support his bid for participation. In addition, the high self esteem—high socially accepted member may be expected to receive more social reinforcement for his participation. Thus, the high self esteem—high socially accepted member is assumed to receive more self reinforcement and social reinforcement for participation in group discussion, which results in a higher level of participation.

Here, high self esteem is assumed to be associated with a higher potential for self reinforcement and a higher probability of social reinforcement. To some extent self reinforcement and social reinforcement may be complementary. When social reinforcement is withheld, the individual with high self esteem has recourse to self reinforcement. The individual with low self esteem is more dependent upon social reinforcement, leading, as we stated at the outset, to less stable participation.

Borgatta (1962, p. 56) demonstrated a significant correlation between Cattrell's Guilt Proneness versus Confident Adequacy subtests and total activity in a group discussion (r = - .34, the more guilt, the less activity) and between Edward's Abasement subtest
and total activity ($r = - .30$, the less abasement, the more activity).

The subjects in the study were 76 neuropsychiatric patients who were members of four "autonomous problem-solving groups" similar in purpose to those discussed by Fairweather (1964, p. 171). Each of the four groups were observed during one session a week over a three-week period. The observer recorded the total amount of interaction units per individual. The adult forms of the SSE were administered at the end of the third session.

The self esteem scores were ordered as anticipated with regard to levels of verbal participation: high interactors (those who contributed more than 5% of the interaction units across the three sessions), 21.6 (the sum of six ratings); low interactors (those who contributed between 2% and 5% of the interaction units, 19.8; and the noninteractors (those who contributed 1% or less of the interaction units across the three sessions), 17.4. Furthermore, the results were statistically significant ($F = 3.37$, d.f. = 1 and 57, $p < .05$).

In order to test the second hypothesis, the variance of the relative frequency of interaction units across the three sessions was used as the measure of consistency of social behavior for each individual. A highly consistent interactor was defined as a group member whose relative frequency of interaction variance was $.03$ or less. The $.03$ point of division created two equal-size categories of subjects with regard to consistency of verbal partici-
pation. However, only the consistency of high interactors was analyzed since consistency among low interactors and noninteractors would be a statistical artifact stemming from a ceiling effect. As hypothesized, there was a significant difference \( (p < .05) \) in self esteem scores between the high interactors—low consistency \( (SSE = 15.90, n = 10) \) and high interactors—high consistency \( (SSE = 26.73, n = 11) \) categories of subjects.

Self Esteem and Socioeconomic Status

Although Wylie's review of the literature contains no reference to an analysis of a relationship between socioeconomic status and self esteem, more recently two studies (Rosenberg, 1965; Cooper-smith, 1967) indicate a positive relationship, although only the results of the first are statistically significant. The rationale for the relationship is that social status is one of the most striking indexes of prestige and success. Persons higher in the social system have more prestigious occupations, have higher incomes, and tend to live in larger and more luxurious houses located in more desirable neighborhoods. These persons are perceived as more successful and tend to receive material and cultural benefits that might lead them to believe that they are generally more worthy than others.

Coopersmith (1967) points out, however, that children's social
position emanates from experiences in school and the neighborhood rather than in an occupational context. These attenuating considerations notwithstanding, it is proposed children from higher status families are more apt to have ego enhancing material reinforcements and social reinforcements. Social self esteem, then, is presumed to be a general evaluation of the self in relation to significant others, and socioeconomic status is but one component of social self esteem.

A reanalysis of the results of a study by Long, Ziller, and Henderson (1967) involved an equal number of boys and girls of normative age for grade in each grade 6 to 12 in four schools in Queen Anne's County, Maryland. The subjects were white and lived in a rural area on the Eastern Shore of Maryland. The subjects had completed six items of the student form of the SSE. Hollingshead's Occupational Scale based upon head of household's occupation (Hollingshead and Redlick, 1963) was used. Four classifications evolved which provided classes with maximally equivalent numbers of subjects per class. Thus, 83 subjects whose fathers' occupation was professional, business, office worker, or salesman constituted class 1; 66 subjects whose fathers were classified as skilled labor constituted class 2; 77 subjects whose fathers were farmers constituted class 3; and 69 subjects whose fathers were semiskilled or unskilled labor constituted class 4. The mean self esteem scores of these subjects were 23.0, 22.4, 20.4, and 20.5, respectively.
Self esteem and socio-economic status are positively associated in this American sample of subjects.

Self Esteem and Culture

In an analysis of cultural shaping of conception of the self, Hallowell (1954) assumes that the individual's self image and his interpretations of his own experience cannot be separated from the concept of the self that is normative in his society.

A similar analysis to the foregoing was made possible by the availability of the caste of Indian subjects in reanalysis of a cross-cultural study (Long, Ziller, Ramana, and Reddy, 1966). The subjects consisted of 50 boys and 50 girls from Form I of the M.V.D.M. High School in Vesakapatnam, Andhra, South India. The children ranged in age from 10 to 14 with a median age of 12. Six items of the student form of the SSE were used. The instructions were read aloud in Telugu, the native language of the children, by one of the Indian experimenters.

The subjects were found to be members of four castes: (a) Caste 1 (Brahmin), \( n = 39 \), self esteem = 27.1; (b) Caste 3 (Visya), \( n = 9 \), self esteem = 25.1; (c) Caste 4 (included 18 types such as Satani and Najara which are all associated with crafts), \( n = 48 \), self esteem = 29.3; (d) Caste 5 (Harijan and Relly), \( n = 4 \), self esteem = 30.3. Because of the extremely small number of subjects in two of
the castes, Castes 1 and 3 were combined and compared with Castes 4 and 5. The results were statistically significant at the .05 level of confidence ($F = 5.6$, d.f. = 1 and 98).

The results were in opposition to expectations based upon the results of the previous study. In this sample of Indian subjects the highest self esteem was expressed by students in the lowest Caste (in the results above, the self esteem scores were simply reversed; high scores represent high self esteem). However, school was attended within this age group and in the region by only 14% of the population. The children from the lowest castes, then, may be using other children of their caste who do not attend school as points of reference, and within this frame of reference their own status appears extremely high. Thus, as indicated in the initial self esteem framework, the field of comparison becomes crucial. Self esteem is defined with regard to significant others.

In this same study of Indian children it was possible to compare the self esteem of a comparable sample of boys and girls from the Queen Anne's County sample mentioned earlier. Here again the high score represents high self esteem. The Indian and American means were 28.1 and 20.6 respectively ($F = 65.6$, d.f. = 1 and 196, $p < .005$). Again, however, the privilege of school attendance may be the crucial variable. The Indian student who perceives himself as being a member of a select group by virtue of school attendance may have higher self esteem than American children who all attend
school as a matter of course. In terms of the discussion of the association between self esteem and socioeconomic status, it is proffered that the school environment is the most salient status variable for the Indian children.

Self Esteem and Conformity

In a summary of the research concerning self esteem and conformity, Wylie (1961) acknowledges that there is a trend indicating an inverse relationship; individuals with low self esteem tend to be more persuasible. In the present study 41 high school seniors were administered the six-item student form of the SSE and then were placed in the classic Asch conformity situation (Asch, 1956). Under the nine extreme conditions where the unanimous majority (of four in this study) chose the line which deviated most from the standard line, the biserial correlation between conformity and the SSE was .32, \( p < .05 \). Higher self esteem was associated with higher conformity.

As stated at the outset, previous research was equivocal. Nevertheless, it is compelling to view these results as negative. In view of the strong social component inherent in the present measure of self esteem, however, it is still possible to interpret the results as indicating that the person with high self esteem within a social context may not perceive conforming behavior under low cost conditions as damaging to the self system.
Self Esteem and the Neurotic Personality

Ausubel (1952) regards self esteem as the outcome of achieving a status commensurate with one's conception of self-importance. He proposes that a devaluation of the self concept is necessary in the face of reality and in order to avoid severe injury to self esteem. Trauma to self esteem may result if ego importance is devalued extremely. On the other hand, personality disorders may evolve from untenable notions of omnipotence to which the child is subject.

Results of experiments which have investigated the relationship between adjustment and self regard (Wylie, 1961) are equivocal. Again, however, the results may simply reflect the shortcomings of verbal self report measures of self esteem, particularly when used with neuropsychiatric patients.

In the first and second of three studies involving the SSE (Ziller, Megas, and DeCencio, 1964), the felt circle approach described earlier was employed. In the first study involving a set of significant other members of an acute neuropsychiatric treatment ward (psychiatrist, psychologist, social worker, nurse, nurses' aide, other patients in the ward, and yourself), patients who had been administered electroconvulsive shock therapy \( n = 10 \) from one to six weeks prior to completing the SSE as compared with those patients who had not received this treatment \( n = 35 \) placed the circle representing themselves in the last position to the right.
more frequently ($\chi^2 = 12.34, p < .01$). These results appear to validate the psychiatric screening techniques for depression since electroconvulsive shock treatment was only recommended for acutely depressed patients.

In the second experiment in the series (Ziller, Megas, and DeCencio, 1964), 25 patients from the neuropsychiatric ward of an acute treatment center and 23 volunteers from the hospital staff, including personnel from several levels of the occupational hierarchy, arranged in a horizontal straight line on a black felt field. 10 significant social elements represented by symbols on a piece of felt two inches in diameter. The elements included "mother," "father," "your wife or girl friend," "the most successful person you know," "the happiest person you know," "the person with whom you are most uncomfortable," "employer," "your doctor," and "your friend." The circles were placed in a random order on a table in front of the black felt field. On each circle there was a one-word description of the person whom the circle represented. A list of the social elements that the circles represented was presented in alphabetical order on the same table. The subjects were asked to "place them all on the board in a straight line according to some relationship that you decide upon." Normals were found to have placed the "self" in a higher position than the patients in the assumed left-right hierarchy ($t = 4.57, p < .001$).

In the third study in the series (Ziller and Grossman, 1966),
90 male, acute neuropsychiatric patients and 87 male employees of the same hospital served as subjects. Two self esteem items were administered to the patients during the first week of admission to the hospital. In the first item, the subject was asked to choose a circle to represent himself from ten circles arranged in a vertical column. Circles were weighted from 1 to 10, with a higher score associated with a higher position.

The second measure of self esteem presented a horizontal array of circles. Subjects were also presented with the same list of ten significant other persons (including the self) used in the preceding study. Here the usual left-right hierarchy was assumed.

The results corroborate earlier findings in the series. Neuropsychiatric patients in comparison with normals show lower self esteem on both measures (horizontal, \( p < .10 \); vertical, \( p < .05 \)).

Overview

The series of studies described here represents the first phase in a program of research concerning self-other orientation. The program of research involves the integration of a theory of personality involving self-other perceptions and an instrument designed to measure the evaluation of the self in relation to significant others using topological representations of self and others. The outcome of the present approach, although balanced
with regard to the emphasis on theory, instruments, and research, rests largely upon the utility of the measures involved. Measurement remains the missing link in personality research. With regard to self-social constructs, measurement is dependent upon the method of communicating between the subject and the scientist. Here we have proposed that there are some distinct advantages to avoiding the usual verbal self report approach and substituting for it a topological approach with limited verbal demands.

The results tend to support the validity and utility of the approach to the measure of self esteem. Social objects with greater value tend to be placed to the left in the horizontal display; the absolute difference between location of self and a low status social object is significantly associated with the left to right location of the self; left-right location of the self is significantly associated with the up-down location of the self. Higher self esteem was found to be associated with social acceptance, social participation, socioeconomic status (only in an American sample), identification with parents, consistency of social behavior, and the normal as opposed to the neurotic personality. Finally, winning political candidates for state legislative offices rose in self esteem, whereas losing candidates dropped in self esteem.

The results of three studies require reconsideration. In one of these negative or very low correlations were found between the SSE and three frequently used measures of self esteem. The results
are consistent with those of an earlier study, however, and strongly suggest that the SSE measures an aspect of self evaluation which is in a different factor region.

The second result requiring reconsideration concerns the tendency of low Caste as compared with high Caste Asian Indian students to place the symbol representing the self more to the left. By way of explanation, it was observed that only a select few of the low Caste as opposed to a high percentage of the high Caste attended public schools, and as a consequence, the high status of the selected low Caste student in comparison with the nonselected low Caste student was reflected in their self evaluations on the SSE. Finally, persons with high social self esteem were found to be more conforming in the Asch situation. It is difficult to discount this finding, even though previous studies concerning a relationship between self esteem and conformity have been equivocal. Against the background of the directly supporting results, the three results requiring qualification do not appear to require a reexamination of the validity of the concept of social self esteem.

The social context of self esteem has been emphasized in the present approach, and, indeed, the results of most of the studies are concerned with social behavior (i.e., popularity, frequency of participation in group discussions, parent-child relationships, conformity). An attempt was made to describe the concept used here in terms of its social correlates. Thus, the term "social self
The meaning of social self esteem as it evolves against the background of its social correlates suggests social acceptance or perhaps self-other confidence. The individual who is assured of his high self evaluation within a social context is more consistent in social behavior and more accepted by others. As stated at the outset, self acceptance and social acceptance are intrinsically interdependent.

If, then, the traditional self report measure of self esteem is unrelated to social self esteem, a reanalysis of the meaning of the traditional measures is indicated. It is now suggested that the self report measures indicate a socially desirable self esteem, an evaluation of the self that the reporter is willing to reveal, or that he desires the other to accept.

Aside from the question of the social context of self esteem, the limited verbal demands of the present approach recommends it as a most useful measure in cross-cultural research, developmental research, and research in general where there may be some question of the comparable verbal ability of the subjects in relation to the experimental tasks.

The fundamental assumption of the proposed measure of self esteem is the proclivity, in the Western Culture, for left to right linear ordering of objects. The findings of the present series of studies along with a long history of research appears to support this assumption. As has already been noted, the tendency to attribute greater importance to the object placed at the extreme left
position in a horizontal display was recorded by Morgan in 1944. Introspectionists such as Lashley (1961) and Inhelder and Piaget (1958, p. 252) have also noted the use of spatial imagery in thinking about nonspatial orderings.

The most systematic work in this area has been conducted by DeSoto (1960, 1961; DeSoto, London, and Handel, 1965). For example, in spatial imagery associated with syllogisms, the results suggest that the left end is the preferred starting point for a horizontal ordering (DeSoto, London, and Handel, 1965).

The studies presented here have attempted to extend this work to the development of a universal communication system; a sign language, if you will, for describing self-other orientations. On this assumption, a number of self-other configurations have been developed (see Ziller and Grossman, 1966; Ziller and Long, 1966) using other spatial arrangements of symbols representing self and significant others which are designed to measure self-other power orientation, marginality, social interest, identification, identification with the majority, self centeredness, social inclusion, and openness.
FOOTNOTES

1 The research program from which this report emanated was supported by a grant to the senior author by the National Science Foundation and in part by the United States Office of Education through a contract to the Center for the Advanced Study of Educational Administration, University of Oregon.

2 The six sets of social objects included in the adult form of the instrument are: (a) doctor, father, a friend, a nurse, yourself, someone you know who is unsuccessful; (b) doctor, father, friend, politician, yourself, an employer; (c) someone you know who is a good athlete, someone you know who is popular, someone you know who is funny, someone who knows a great deal, yourself, someone you know who is unhappy; (d) an actor, your brother or someone who is most like a brother, your best friend, yourself, a salesman, a politically active person; (e) someone you know who is cruel, a judge, a housewife, a policeman, yourself, your sister or someone who is most like a sister; (f) a defeated legislative candidate, the happiest person you know, someone you know who is kind, yourself, someone you know who is successful, the strongest person you know.
REFERENCES


FIGURE I

The circles below stand for people. Mark each circle with the letter standing for one of the people in the list. Do this in any way you like, but use each person only once and do not omit anyone.

F - someone who is flunking
H - the happiest person you know
K - someone you know who is kind
S - yourself
Su - someone you know who is successful
St - the strongest person you know
<table>
<thead>
<tr>
<th></th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>unhappy</td>
<td>16%</td>
<td>7%</td>
<td>7%</td>
<td>7%</td>
<td>15%</td>
<td>48%</td>
</tr>
<tr>
<td>n = 150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unsuccessful</td>
<td>21%</td>
<td>3%</td>
<td>5%</td>
<td>9%</td>
<td>5%</td>
<td>56%</td>
</tr>
<tr>
<td>n = 147</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cruel</td>
<td>27%</td>
<td>2%</td>
<td>4%</td>
<td>1%</td>
<td>3%</td>
<td>64%</td>
</tr>
<tr>
<td>n = 154</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>flunking</td>
<td>31%</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
<td>4%</td>
<td>59%</td>
</tr>
<tr>
<td>n = 172</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 2

Distribution of the Location of "Someone Who is Flunking" in Two Identical Self-Esteem Items (Vertical vs. Horizontal Arrangements).

<table>
<thead>
<tr>
<th>Location</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical</td>
<td>9%</td>
<td>.6%</td>
<td>.6%</td>
<td>3%</td>
<td>3%</td>
<td>84%</td>
</tr>
<tr>
<td>Horizontal</td>
<td>31%</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
<td>4%</td>
<td>59%</td>
</tr>
</tbody>
</table>

*In the vertical arrangement location "6" was the first or top position in the hierarchy. In the horizontal arrangement location "6" is the first position in the left-right hierarchy.
TABLE 3

Intercorrelation Matrix of Four Measures of Self-Esteem

<table>
<thead>
<tr>
<th></th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males Females</td>
<td>Males Females</td>
<td>Males Females</td>
</tr>
<tr>
<td>Bills-Vance McLean</td>
<td>(1) .46xx</td>
<td>.17</td>
<td>.60xxx</td>
</tr>
<tr>
<td>Index</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coopersmith's</td>
<td>(2)</td>
<td>.37x</td>
<td>.23</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diggory's Self</td>
<td>(3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social-Self-Esteem</td>
<td>(4)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

xxxp < .001
xxp < .01
xp < .05

n (males) = 33
n (females) = 53
TABLE 4

Changes in Self-Esteem of Winning and Losing Political Candidates

<table>
<thead>
<tr>
<th>Candidates</th>
<th>Increased</th>
<th>Decreased</th>
<th>No Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winners</td>
<td>15</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Losers</td>
<td>3</td>
<td>11</td>
<td>2</td>
</tr>
</tbody>
</table>

\[ X^2 = 6.01 \text{ (p < .05)} \]