

SOCIAL INTEREST AND PERFORMANCE ON THE
GOODENOUGH-HARRIS DRAW-A-MAN TEST

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In 1949 Fiedler and Siegel (3) found that adults who improved in psychotherapy scored significantly higher on a 22-point head scale taken from the Goodenough Draw-A-Man Test than those who did not improve. The authors explained this through an observation by Machover who wrote that "The face may be regarded as the social feature of the drawing" (5, p. 40). Machover considered that the individual who omits facial features from his drawing of the human figure has difficulty with his social contacts. He "is one who is evasive about the frictional character of his interpersonal relationships. . . . Superficiality, caution, and hostility may characterize the social contacts of such an individual" (5, pp. 40-41). On this basis, Fiedler and Siegel concluded specifically that the low score on the head scale among the unimproved patients indicates that their "ability to relate to others is less than the minimum necessary to form and sustain relationships within which therapy could proceed" (3, p. 388).

Ten years later, Richey and Spotts (6) reported a modest though reliable correlation of .304 between scores on Fiedler and Siegel's head scale, which they then called face scale, and popularity, among 103 ten-year-old children. The correlation between the remainder of the Goodenough scale, i.e., the body, and popularity was practically zero.

The rationale for their study was the assumption that popularity or social attractiveness is a function of ability to relate to others, or of social responsiveness (6, p. 150). The popularity measure was sociometric, namely, the number of times a child was chosen by his classmates in response to the questions given to all children: (a) Who would you say are the three best friends you have in this class? (b) If you were going to have a party, which three children from this class would you be sure to invite?

These authors interpreted their results "as consistent with the Machover-Fiedler-Siegel formulation that the face is the social feature of the drawing and that performance in drawing the face reflects the subject's 'ability to form interpersonal relationships.'" However,

they appreciated that there is no certainty that popularity, or social attractiveness, is actually a function of social responsiveness. A child might be attractive to other children because of his appearance while not being socially responsive. Thus they point out that further evidence is required to establish the validity of the construct of "ability to form relationships" (6, p. 150).

The present study was undertaken to replicate the results of Richey and Spotts. At the same time we wanted to maximize the phenomenon they had reported. To accomplish this, our reasoning was: If there is a relationship between drawing the human face and both improvement in psychotherapy and popularity, the common factor must be what the previous authors beginning with Machover had recognized as being reflected in the drawing of the human face. They described the factor as "ability to form interpersonal relationships," "social responsiveness, or ability to accept others." Machover speaks of "the function of social communication" (5, p. 47). All these descriptions refer to the kind of behavior which Adler subsumed under the wider concept of social interest (1, pp. 133-142, 148-161).

With such a conception of the common factor in mind, (*a*) we examined the test variable for "purity," and (*b*) searched for a better criterion variable than popularity.

a. Regarding the test, one can readily accept that the eyes, ears, to a small extent the nose, and certainly the mouth, all parts of the face or head, are organs of communication, and that the person who does well on these in drawing a man would be socially interested and responsive socially. The organs concerned with receiving messages from and sending messages to other people would through their importance for him have become well developed concepts. As such they would find representation in the drawings, especially in children who draw what they know. There is almost no other way of being in contact with other people than through these organs.

By contrast, to the neurotic who has less social interest, according to Adler, and "is always prevented from coming into closer contact with other persons" (1, p. 295), these organs of communication will be less important. They will have become less well conceptualized in him and will therefore be less likely to find good representation in his drawings.

Although the previous authors did explain that the drawing of the face or head is related to social responsiveness and communication,

they did not draw the full consequences from their statement. They did not explicitly differentiate between communication and non-communication aspects of the head. Thus they included as part of the head or face scale all the nonfunctional features, i.e. the chin, hair, the neck, the head itself, and quality aspects of the Goodenough scale.

To obtain a "purer" scale we omitted all these noncommunication items. The new scale we used will be fully described in the method section.

b. For a better criterion variable we searched for an available instrument applicable to ten-year-old children which, on logical analysis of its contents, would seem to afford a quantitative expression of the construct of ability to form interpersonal relations, social responsiveness, or the wider concept of social interest. Such an instrument was selected in the form of two components of the California Test of Personality and will also be described in the method section.

This study was then designed to test the hypotheses:

1. Performance in drawing the communication organs of a man is significantly related to a measure of social interest.

2. The communication-organ score is a better index of social interest than a score based on performance in drawing the entire head, the noncommunication features of the head, the body alone, or all the items of the Goodenough Draw-A-Man Test.

METHOD

Subjects

Ss were 59 children comprising the enrollment, less absentees, of two fourth-grade classrooms in a Catholic parochial school in Burlington, Vermont.¹ There were 35 boys and 24 girls.

Goodenough-Harris Drawing Test

Each child was asked, during a group administration, to draw a man. The instructions and scoring procedure of the Goodenough-Harris Drawing Test (4) were followed. A maximum of 73 points can be attained on a drawing. The drawings were scored by the principal author several weeks before any other data were gathered from the Ss.

In addition to the total score, four subscores were obtained. These are listed below together with the numbers of the specific items that are included in each scale:

1. communication-organ score (items 4-13, 17, 22, and 23),

¹The principal author expresses her sincere appreciation to Sister M. Theophane, principal, and to Mrs. Giroux and Mrs. Noonan, teachers, for their kindness and cooperation.

2. remainder of head, noncommunication score (items 1-3, 14-16, 18-21, 48-50, 66, and 69),
3. head score (items from scores 1 and 2 combined),
4. body score (items 24-47, 51-59, 67, 68, 72, and 73).

The 13 items of the communication-organ scale and the 15 items referring to the remainder of the head, the noncommunication scale, are listed in Table 1. In the old form of the test used by Richey and Spotts only 12 points could be earned for the communication organs and only 10 points for the remaining features of the head, a total of 22 points, against a total of 28 points in the new form of the test.

TABLE 1. ITEMS OF THE COMMUNICATION-ORGAN SCALE AND THE NONCOMMUNICATION SCALE FROM THE GOODENOUGH-HARRIS DRAWING TEST

Communication items (N = 13)	Noncommunication items (N = 15)
4. Eyes present	1. Head present
5. Eye detail: brow or lashes	2. Neck present
6. pupil	3. Neck, two dimensions
7. proportion	14. Chin and forehead shown
8. glance	15. Chin projection shown
9. Nose present	16. Line of jaw indicated
10. Nose, two dimensions	18. Hair: any indication
11. Mouth present	19. not transparent or mere scribble
12. Lips, two dimensions	20. some cut or styling
13. Nose and lips in two dimensions	21. directed lines
17. Bridge of nose	48. Proportion: head I
22. Ears present	49. head II
23. Ears, proportion and position	50. face
	66. Directed lines: head outline
	69. facial features

Social-Interest Scale

As a measure of social interest we selected on purely logical grounds the component tests 2B and 2C from the California Test of Personality (Form AA). Component 2B is entitled "Social Skills." A person is described as socially skillful "when he shows a liking for people, when he inconveniences himself to be of assistance to them, and when he is diplomatic in his dealings with both friends and strangers." It includes "interest in the problems and activities of one's associates" (7, p. 3). It consists of 12 questions of which the following may be considered representative: "Do you help new pupils to talk to other children?" (Yes). "Do you often change your plans in order to help people?" (Yes).

Component 2C is entitled "Freedom from Anti-social Tendencies." By such tendencies is meant being given to bullying, quarreling, getting one's satisfactions in ways that are damaging and unfair to others. Again there are 12 questions of which the following may serve as samples. "Do you often make friends or classmates do things they don't want to?" (No). "Do you often have to make a 'fuss' or 'act up' to get what you deserve?" (No). "Do people often ask you to do such hard or foolish things that you won't do them?" (No).

It can easily be seen that what these two components measure comes close to the kind of behavior Adler included under social interest. They go beyond

social responsiveness by taking in socially initiating behavior (contact readiness), cooperation, and empathy as well.

Actually the entire California Test of Personality was administered, but of its twelve components only the two just described were used. The test was administered several weeks after the Drawing Test.

Measure of Intelligence

Intelligence had been measured by the Primary Mental Abilities Test (PMA) a few months previous to this study as part of the school's testing program.

RESULTS

Table 2 presents correlations between the various Goodenough scores and measures of social interest and of intelligence. Since our first purpose was the replication of the results by Richey and Spotts these are also included in the table for the purpose of comparison.

The correlations of total Goodenough scores with the respective measures of intelligence are very similar in the two studies, .424 for the earlier, and .408 for the present study. The second correlation, between PMA IQ and total Goodenough, is practically identical with one of .41 between the same measures obtained earlier (2), although then the original rather than the Harris scoring procedure was used.

TABLE 2. CORRELATIONS OF GOODENOUGH SCORES WITH INTELLIGENCE AND SOCIAL INTEREST, AND OF INTELLIGENCE WITH SOCIAL INTEREST, AS FOUND IN THE RICHEY AND SPOTTS STUDY AND THE PRESENT STUDY

Goodenough scores ^a	Intelligence ^b		Social interest ^c	
	R & S CTMM	present PMA	R & S popularity	present CTP
Head: communication organs	—	.074	—	.729*
noncomm. features	—	.360*	—	.259
total	.372*	.266	.304*	.474*
Body	.338*	.240	.053	.022
Total Goodenough	.424*	.408*	.180	.288
Intelligence			.299*	.206

*Significant beyond the .01 level.

^aRichey and Spotts used the Goodenough scoring method, the present study used the Goodenough-Harris method (4).

^bRichey and Spotts used the California Test of Mental Maturity (CTMM), the present study used the Primary Mental Abilities Test (PMA).

^cRichey and Spotts used sociometry (popularity), the present study used the California Test of Personality (CTP), components 2B and 2C.

It should be mentioned here that in the present study the mean total Goodenough score was considerably lower than the mean PMA score, 91.8 ± 11.3 versus 106.8 ± 11.8 . We have no ready explanation for this difference.

In both the Richey and Spotts and our studies the correlations with IQ are lowest for the body scores, .338 and .240 respectively, and somewhat higher for total head scores, .372 and .266, respectively. We have no ready explanation as to why the correlations with intelligence are generally higher in the earlier study than in the present study.

On the other hand, the correlations of the Goodenough scores with the social-interest measures are generally higher for the present study than for the earlier one. Our measure of social interest has apparently more in common with the social aspect measured by the Goodenough test than popularity which was used in the earlier study. Specifically, the correlations for total Goodenough scores were .288 and .180 respectively, for total head .474 and .304, and for body alone practically zero, .022 and .053.

To end the comparison between the two studies, in the earlier one the correlation between IQ and popularity was .299, in the present study the correlation between IQ and components of the California Test of Personality was .206.

The main finding is, of course, the remarkably high correlation of .729 between communication-organ scores and the measure of social interest. (The means, standard deviations, and ranges of these two measures were, respectively: 7.56, 1.57, and 3 to 12; and 15.19, 3.53, and 8 to 22.) This stands out against the other correlations with social interest which were .474 for all the head items, .259 for the noncommunication features of the head alone, .022 for the body alone, and .288 for the total of the Goodenough scores. Thus both hypotheses of this study were confirmed.

Intelligence was found to correlate only .074 with the communication-organ scores. On the other hand, noncommunication scores correlated with intelligence .360 while they correlated with social interest only .259. The relatively high correlation between noncommunication and intelligence is plausible if we consider that here the drawing receives credit for such abstractions as proportions, two-dimensional characteristics, etc., which would seem to require more intellectual functioning.

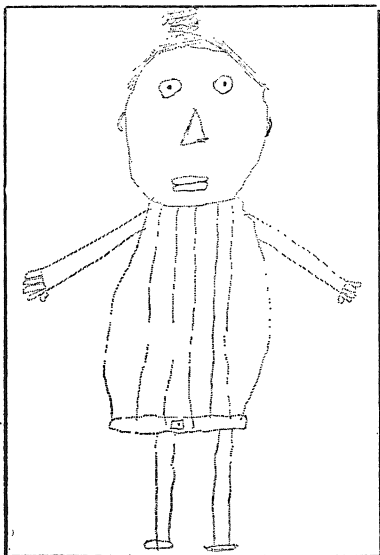


Fig. 1a.

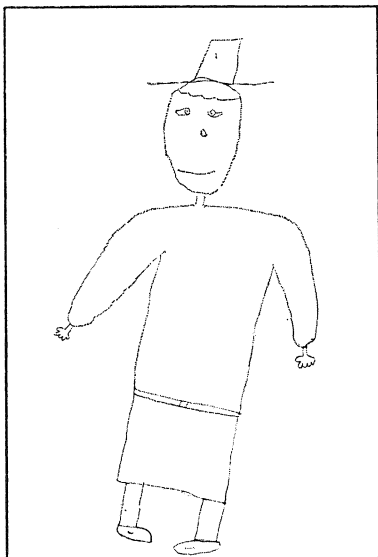


Fig. 1b.

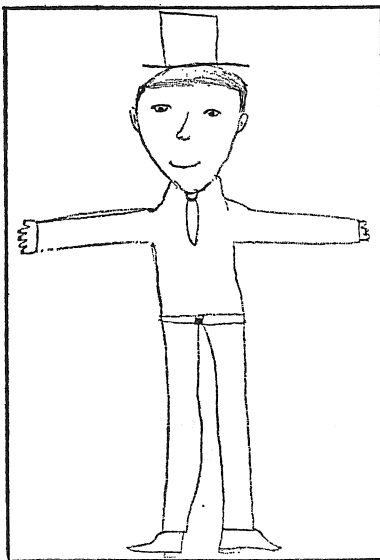


Fig. 2a.

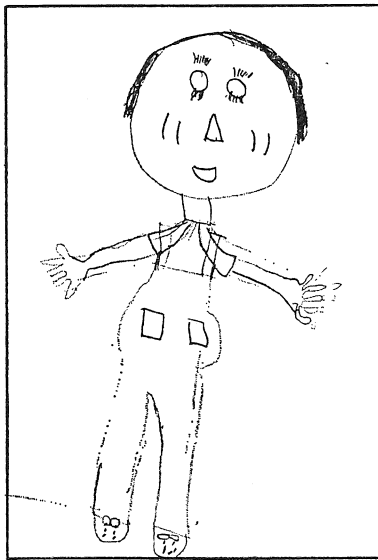


Fig. 2b.

TABLE 3. DATA ON SUBJECTS WHOSE DRAWINGS ARE PAIRED IN FIGURES 1A AND 1B AND FIGURES 2A AND 2B

	Pair 1		Pair 2	
	a	b	a	b
Sex	M	M	F	F
Age	9	9	10	10
Primary-Ment.-Abilities IQ ^a	106	109	103	95
Goodenough-Harris std. sc.	94	100	98	83
Communication-organ pts.	9	5	10	5
CTP social-interest pts.	18	10	19	8

^aIt should be noted that the PMA mean for the present subjects was 106.8, while the Goodenough mean was 91.8.

In Figures 1a and b, and 2a and b we are presenting as samples paired drawings by two boys and two girls who have been matched for age and, as well as possible, for PMA IQ. At the same time the members of both pairs show relatively large differences in communication-organ and social-interest scores. In both pairs the first drawing is relatively high on these scores, the second drawing low. The actual values are given in Table 3. It is particularly noteworthy that the subject who drew Figure 1b received higher PMA and Goodenough scores than the subject who drew Figure 1a, while in the communication-organ and social-interest scores this relationship was strongly reversed.

Impressionistically, the figures show that the lower social-interest scores go with relatively blank faces. The child who drew Figure 2b drew empty eyes which, according to Machover "is often symptomatic of emotional immaturity and egocentricity" (5, p. 49). The same child received on the social-interest scale a score of 8, representing the lower end of the range among the subjects of the present study.

SUMMARY

Previous studies had shown a relationship between drawing the face and certain social aspects of the personality. We assumed that the common factor involved here was social interest as conceived by Adler. Children with more social interest would be more interested in communicating with others, would have conceptualized the communication organs better, and would bring this out in their drawings.

Thus we hypothesized that performance in drawing the communication organs of a man is significantly related to a measure of social interest, and that such performance is a better index of social interest than a score based on the drawing of the entire head or face, or other scores derived from the drawing of a man, following the procedure of the Goodenough-Harris Drawing Test.

Testing 59 ten-year-old children we found these hypotheses supported: The correlation between drawing communication organs and responses to two components of the California Test of Personality selected for their pertinence to social interest was .729. The remaining features of the face correlated with social interest only .259, and the entire head including communication organs correlated only .474. The body alone correlated .022, and total Goodenough scores .288.

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