

THE DEVELOPMENT OF THE CONCEPT OF GROUP

Lloyd A Taylor, Phillips University, Oklahoma

INTRODUCTION

Human infants do not play competitive games, do not enter primary relations, and do not interact meaningfully beyond the dyadic state (DeFleur 1966; Parten, Newhall 1943; Baldwin 1955; Maier 1965). There is no agreement on a chronological age when complex abstract concepts of social relations begin to develop. Some say it is from ages 6 to 8 (DeFleur 1966; Vinacke 1954) or 8 to 10 (Sullivan 1953). Piaget believes that conceptual development in children occurs in ordinal rather than interval stages (Flavell 1963). If there is movement in conceptual development, it may be possible to measure it and to indicate its direction. Persons may be arranged along the continuum of no concept to complete concept in relative positions based on such limiting factors as chronological age, mental age, social expectation and social opportunity.

METHODOLOGY

This is an exploratory study of the development of the concept of the social group. 1) It was necessary to create a term to symbolize the primary human condition regarding groups — the absence of the concept of group. Young children perceive individuals, but not group relations. Without a group concept the individual sees persons but not interactive patterns. I propose the term, *aprasia* for this condition, coming from the Greek word, *prasia*, meaning ordered rows of objects or persons, as soldiers in battle formation. With the negative prefix, *a*, it refers to the lack of perceived order in primary social relations. *Aprasia* means perceiving persons as separate entities but not perceiving them in meaningful or significant interaction in groups. Our purpose is to measure movement away from *aprasia*, and toward group concept development.

2) To make measurements, we must find a definition of a group that can be operated to yield quantifiable results. Fichter (1957) listed 8 group characteristics:

1. a unit identifiable by members and outside observers.
2. a social structure

3. individual roles
4. reciprocal relations
5. norms of behavior
6. common interests and values
7. goal direction
8. relative permanence

A person who has a concept of a group coordinates these defining characteristics in varying degree as part of a concept of group, and the characteristics exist on a lower level of abstraction. Each of these concepts can be sought in the individual, measured to its relative extent, and quantified on a relative scale. If most concepts of a group were lacking, *aprasia* would be relatively complete.

3) To explore the possibility for movement, it was necessary to find a population where the differences would probably be highly visible. If the child starts forming a group concept at about age 8, then respondents below this level, at age 6 and those over the level, at age 12 should yield contrasting results. If mental age were a defining factor, then both normal children and retarded children should be in the population.

Social expectations and social opportunity differ in familial and institutional settings. Thus, it seemed well to examine children in both contexts. Male subjects were used to eliminate the effects of gender differences in maturation rate. To match the mental age of the normal 6-year olds, and the chronological age of the normal 12-year olds, I included retardates whose mental age was 6, and whose chronological age was 12. The two types of setting were: 1) family; 2) institutional. The 6-cell research design is reflected in the format of Table 2.

4) The chronological and mental ages of the respondents imposed special conditions. Any type of testing had to be within the possible experience of all children tested. Problems and questions had to be well within the comprehension range of the respondents. Four social conditions were common to all respondents in the design: home, play, work, and school. These common situations were used as the basis of inquiry.

5) Persons in interaction analyze existing groups and synthesize possible groups. The

abilities for these two activities may differ, so both were included.

Twenty male respondents were chosen to populate each of the six cells of the design. They were selected by an availability sampling technique: children in the family setting were from Enid, Oklahoma public schools; retarded institutionalized children were from the Enid State School for the Mentally Retarded; institutionalized normal children were from three children's homes in Oklahoma. Generating 8 measures per respondent provided 480 measures for analysis.

The tests were based on structured situations using quasi-projective methods with toys. Hsu (1963) used two Thematic Apperception Test (TAT) protocols with children with acceptable results, and Sarason (1963) found the projective method applicable to retardates. Tests for *analysis* and for *synthesis* in the four conditions, *home*, *play*, *work*, and *school* provided the eight group defining characteristics.

The protocols were pretested on subjects in a like population to conform to the abilities of the subjects to comprehend and respond. Two female senior sociology majors were trained in administering the tests until they achieved near uniform results, though working individually. Each child was interviewed for about an hour in congenial and familiar surroundings at a time when he would not feel deprived of time for individual pursuits. Interviews were recorded on tape to provide reference to check interviewer observations.

There were six hypotheses in null form postulating no difference between group test means at the .05 probability level:

H_{0,1} Between family setting and institutional setting in summations of group concepts.

H_{0,2} Between normal 6-year olds, normal 12-year olds, and retardates in summations of group concepts.

H_{0,3} Between situational variables in summations of group concepts.

H_{0,4} Between family and institutional settings and normal 6- and 12-year olds and retardates in summations of group concepts.

H_{0,5} Between family and institutional settings and situational variables in summations of group concepts.

H_{0,6} Between normal 6- and 12-year olds and retardates and the situational variables in

TABLE 1: ANALYSIS OF VARIANCE FOR SUMMATIONS OF GROUP CONCEPTS
(2 x 3 x 8 design)

Source	df	Mean Square	F	p
A: Setting ¹	1	1006.6	38.48	.001
B: Ability ²	2	9567.4	365.73	.001
C: Situation ³	7	380.9	14.56	.01
Interaction				
AxB	2	60.2	2.30	n.s.
AxC	7	42.9	1.64	n.s.
BxC	14	159.8	6.11	.01
AxBxC	14	21.4	0.82	n.s.
Within	912	26.2		

¹ Family, institutional.

² Normal 6- & 12-year olds and retardates.

³ Analysis & synthesis: home, play, work, school.

TABLE 2: RESEARCH DESIGN: DATA BY ABILITY LEVEL AND TYPE OF SETTING

(Responses per cell, n = 160; higher means indicate poorer comprehension of concepts)

Setting	Ability		
		Normal: 6-year	12-year Retarded
Family	Mean	21.5	11.9
	Sigma	6.5	3.1
Institution	Mean	24.1	14.3
	Sigma	5.5	4.5

summations of group concepts.

FINDINGS

Each child in each area was rated on a 1-5 scale to accumulate raw scores for analysis of variance. The results are shown in Table 2. Each source of variance yielding a critical F-ratio was partitioned, and the variance of each component was successively removed to isolate the specific contributory sources. Fisher's *t-test*, was applied as shown in Table 3. Each source of variance that yielded a critical *t-ratio* was partitioned as shown in Table 4 where results are collapsed in summary analysis for comparison. Each part was tested by Fisher's *t-ratio* for difference between uncorrelated means in two samples of equal size (Guilford 1956 183).

TABLE 3: VARIANCE ANALYSIS FOR SETTINGS, ABILITIES AND SITUATION VARIABLES IN SUMMATIONS OF GROUP CONCEPTS

(Probability criteria: $t_{.05} = 2.09$; $t_{.01} = 2.86$; $t_{.001} = 3.88$)

Operation	Components	Family		Institution	
		t-ratio	p	t-ratio	p
1. School analysis: Normal 6 yr — normal 12 yr		3.69	.01	4.38	.001
2. Work synthesis: Normal 12 yr — Retardate		7.55	.001	8.21	.001
3. School synthesis: Normal 6 yr — normal 12 yr		2.91	.01	4.27	.001
4. Normal 6 yr: Work synthesis — work analysis		3.25	.01	0.62	n.s.
5. Normal 12 yr: Work synthesis — work analysis		3.08	.01	0.41	n.s.
6. Retardates: Work synthesis — work analysis		1.00	n.s.	4.86	.001
7. Analysis, normal 6: Family — work		0.19	n.s.	0.61	n.s.
8. Analysis, normal 12: Family — work		2.17	.05	1.04	n.s.
9. Analysis, retardate: Family — work		0.29	n.s.	1.96	n.s.

TABLE 4: SOURCES CONTRIBUTING MOST TO RESEARCH DESIGN ELEMENTS

(Figures are t-ratio frequencies)

Contributing element	Level of confidence			
	NS	.05	.01	.001
Identifiable	2	1	2	5
Structure	4	0	2	4
Role	2	1	1	6
Reciprocal relations	5	0	3	2
Normative behavior	2	3	3	2
Common interests	2	2	1	5
Common goals	5	0	3	2
Continuity	4	0	3	3
Totals	26	7	18	29

DISCUSSION

I assumed in the research design that both chronological age and mental age were limiting factors in the ability to perceive a group. The data support the premise. There is a significant difference between retardates and normal children of the same chronological age, as shown in Table 2. Normal 12 year olds also differ significantly from retardates. The standard deviation values show that there is more homogeneity among the normal 12-year olds than among retardates.

When the significant sources of variance were partitioned there were no retardate versus normal 6-year olds differing significantly. The mean scores for the two populations are about the same (22.2 versus 22.9). The com-

petence level of the two groups seems similar.

The data demonstrate similarity when mental age is the defining factor between normals and retardates. There are differences when chronological age is the defining factor. Therefore, the degree of aprasia is related to mental age as a conditioning factor in the similarity of retardates and normal 6-year-olds. It is related to chronological age as shown in the difference between the normal 6-year-olds and 12-year-olds.

It was assumed in the design that social opportunity and social expectation were conditioning factors. It was also assumed that both the expectations to act and opportunities to observe and participate in social activity would be greater in the family setting than in the institutional setting. The data support these premises. The mean score of institutionalized respondents, 20.4, indicates the greater degree of aprasia than the mean score, 18.4, of children living in families. Though the responses of the institutionalized were more homogeneous, they lacked skill in comprehending the group concept as measured by the instruments. In Table 2, in each cell the family respondents scored nearer the high group than did those in the institutional setting in corresponding cells.

The wisdom of testing children in both settings was indicated in the data. If chronological age and mental age were similar, the differences must be accounted for in the social expectations and social opportunities which were greater for children in

TABLE 4: DIFFERENCES: ABILITY VS SETTING IN GROUP CHARACTERISTICS

Group characteristic	df	Chi ²	p
Unit of analysis	2	219.4	.001
Structure	2	354.7	.001
Role	2	109.0	.001
Reciprocal relations	2	202.4	.001
Normative behavior	2	136.1	.001
Common interests	2	240.0	.001
Common goals	2	232.2	.001
Continuity	2	450.4	.001

the family setting. The institutional bias reflected here was not the effect of the institution policies. In the population of the institutionalized were children from homes sponsored by Catholics, Baptists, the American Legion and the Oklahoma Department of Public Welfare. Consistently, the data indicated that the family was the better socializing agent, as shown by Goldfarb (1943, 1947). At each level of comparison, aprasia was greater in the institutional than in the family setting.

The statistics in Table 5 demonstrate significant differences on scores for all 8 group characteristics comparing ability and setting. Respondents demonstrated significantly greater ease and competence in examining existing group situations and understanding them, than they did in putting the components of groups together to form answers to problematic situations.

CONCLUSION

The findings indicate that the basic inferences about the growth of group consciousness from aprasia toward group concepts are valid. More important, the movement can be measured by definitive characteristics of the group and by determining the respondent's grasp of them. The human individual begins conscious life in relation to others without the group concept, in the condition of aprasia, which is slowly reduced as a result of four conditioning factors: chronological age, mental age, social expectation and social opportunity. From the standard deviations, I infer that this change follows an ordinal scale rather than an interval scale. And we note that

persons vary in their degree of aprasia.

For future research, late socialization and aprasia could be fruitful. Older persons who move to rest homes may find adjustment difficult or easy, depending on their degree of aprasia. Soldiers unable to adjust to the demands of military training and service, and students having serious problems adjusting in school may have excessive aprasia. Perhaps studies could show tolerance limits for many situations where one must conceptualize or analyze the existing group, and synthesize new groups. Birth order is very likely related to the level of aprasia and the rate of progress in reducing it. Leadership potential is probably related to the degree of aprasia, since the leader usually excels in group formation.

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