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ABSTRACT

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The Origins of Concept Formation : Object Sorting and Object Preference in Early Infancy

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ABSTRACT

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Studies of concept formation in infancy have demonstrated that certain experimental settings can elicit spontaneous behavior from infants which has been called "sorting" or "object grouping". This study pursues the issue of early sorting with infants as young as six months, and with a broader range of stimuli than has been used previously. Forty-eight infants, eight male and eight female at 6, 9 and 12 months were presented with eight sets of small, manipulable objects. Each stimulus set consisted of two groups of four objects each, the groups differing in size, color, form or some combination of these dimensions. Stimuli thought to be of high salience were included. Variables coded were: which object touched first; the order in which objects were touched; grouping together of objects. At both 9 and 12 months, infants showed a high level of sorting activity. At 9 months, 94% showed sequential touching of like objects, while 100% did so at 12 months. 13% at 9, and 44% at 12 months demonstrated at least primitive object grouping. At 6 months selective manipulation was conspicuously absent, leading the author to conclude that this activity must emerge sometime between 6 and 9 months.

The Origins of Concept Formation: Object Sorting and Object Preference in Early Infancy

When young children are confronted with the task of forming groups of objects based upon a single, common attribute from a diverse collection of objects with overlapping attributes such as the "Vygotsky blocks", they are typically incapable of doing so (Vygotsky, 1962; Piaget, 1964). They are said to lack the "concept" of a group or category which can be defined by a specific set of objectively determined features. According to these researchers, it is not until early adolescence that a child has sufficient understanding of the relationships between category and sub-category to successfully complete a complex sorting task.

In spite of the results of these classic studies, it would be a mistake to assume that the young child, because s/he cannot perform an advanced cognitive task requiring what Piaget calls "formal operations", is not actively engaged in making category distinctions. Recent research has shown that children as young as age two readily make category distinctions, although these early categories are formed without the planning and self-monitoring which is characteristic of the classificatory activity of older children and adults. Rossi and Rossi (1965) found that their two year old subjects used clustering almost exclusively as a means of recall, and they assert that associative clustering is a basic and automatic activity in verbal organization at this age. In a similar vein, Goldberg, Perlmutter and Myers (1974) presented short, two word lists to 2½ - 3 year olds and concluded that lists of related items were recalled more readily than lists of unrelated items. Both of these studies suggest that young child-

ren make use of verbal categories at what is virtually the onset of language use. Other data may indicate that categorization can be found at an even earlier age.

Using a greatly simplified version of the classic sorting task, Katherine Nelson (1973) carried out a study in which infants aged 1½ to 2 years were presented with collections of 8 objects. Each grouping of 8 could be sorted into 2 subsets of 4 objects each. Nelson used "realistic" objects, including toy airplanes, model cars, and small plastic animals. She concluded that the children did indeed categorize the objects, and did so primarily on the basis of function. While the infants in this study were not preverbal, neither did they demonstrate a specific knowledge of the appropriate category labels. Nelson argued that young children form primitive conceptual categories based upon functional usage, and only later are these categories given verbal labels. This position contrasts sharply with the traditional view that language is a necessary precursor of concept development (Whorf, 1940; Brown, 1956).

A second study to utilize a simplified version of the sorting task with infants was done by Riccuiti (1965). He observed the spontaneous object manipulation of 12, 18, and 24 month old infants who were given 8 objects that could, as in Nelson's study, be sorted into two distinct groups. Riccuiti's stimuli consisted of geometric forms. One group of objects could be categorized on the basis of size, another by form, a third by size and color, and the fourth by size, color and form. Riccuiti looked at both sequential touching and object grouping. He found that some degree of sequential touching was performed by approximately 40% of the 12 month olds, 80% of the 18 month olds, and 70% of the 24 month olds. Object grouping occurred with less frequency, but was still present at all

ages. Kiccuiti argued that the infants were more likely to sort those sets which had the greatest number of dimensions of difference between them. Thus a set in which items differed in size, color and form would be sorted more often than one with a size difference only.

The present study attempts to answer several questions raised by the research of Nelson (1973) and Riccuiti (1965). First, their data reveal that even the youngest infants studied (one to one-and-a-half year olds) demonstrated some sequential touching and object grouping. This leaves open the possibility that even younger infants will actively categorize groups of small, manipulable objects (Fagan found passive recognition of categories using looking preference at four to six months (Fagan, 1973)). This study tests infants of 6, 9 and 12 months to search for the first occurrence of object sorting. A second question relates to choice of stimulus objects. If stimuli of greater salience than those previously used could be found, might this not increase the amount of sorting done by young infants? The present study utilizes highly salient stimuli in order to test this hypothesis. The third and final question concerns Riccuiti's statement that infant sorting can be predicted simply by counting the number of dimensions of difference between two groups of stimuli. This study investigates the possibility that another factor, i.e. the relative salience or attractiveness of the two object groups in a stimulus set, may influence the amount of observable categorizing behavior demonstrated by young infants. These three issues motivate this work on infant sorting.

Method

Subjects

A total of 48 infants, 16 each at the ages of 5, 9, and 12 months completed the study. In addition, the data of 6 infants were not used in analyses because of failure to complete all sorting trials (2), and equipment failure (4). 8 infants in each group were male, and 8 were female. The criterion for placement in an age group was ± 2 weeks of the targeted age (S.D. = ± 6.7 days). All were of white, middle-class parents who were recruited by advertisements placed in local, suburban newspapers. Parents were paid for their participation.

Materials and Apparatus

The stimuli were all small, easily manipulable objects consisting of eight sets of eight objects each. The sets could be sorted into two subsets of four objects each, with only one logical division possible for each set. The sets were composed of:

Set A: Four yellow, cubical plastic "pillboxes" measuring 3/4 inches on a side; paired with four blue clay balls of about the same size. The clay was malleable, and could be altered by biting and striking. The two groups differ in color, shape, and texture.

Set B: Four red squares of hardened clay measuring approx. 3/4 inch by 1/2 inch, which were nonmalleable; paired with four red "hooks" (two arms of clay 1 inch long and 3/4 inches in diameter joined by a right angle) of the same material. These stimuli differ slightly in size, and greatly in form.

Set C: Four brightly colored plastic "people" figurines measuring 1 1/2 inches in height by 3/4 inches in diameter. Among this group there were marginal, and we assume nonsalient differences in color and shape. These were paired with four yellow ovals (2" by 1 1/2") made of 1/4 inch masonite. These groups differ in size, color, and form.

Set D: Four metal bottle caps measuring 1 1/2" in diameter, and painted with black and white stripes. The caps were 1/4" in height, and could easily be stacked on top of one another. These were paired with four yellow cubes as described in Set A. The two groups differ in size, color, and form.

Set E: Four large (1" by 3") red ovals of 1/4" masonite; paired with four small (1" by 1/2") red ovals of the same material. These groups differ only in size.

Set F: Four "people" figurines as described in Set C above , paired with four red "broom handles" consisting of hollow cylanders 1 1/4" tall by 1" in diameter. The cylanders were flat on one end and rounded on the other. These groups differ slightly in size, but greatly in form and color.

Set G: Four bottle caps as described in Set D above, paired with four "broom handles" as described in Set F above. These groups differ in size, color, and form.

Set H: Four flat, yellow ovals as described in Set C above, paired with four flat yellow rectangles of the same thickness and surface area. These groups differ in outline shape only.

Sets A, E, and H were adopted from the study by Riccuiti (1965). His fourth set, which elicited very little interest from his subjects and our pilot subjects, was not used in the present study.

The apparatus for presenting the stimulus materials to the 9 and 12 month olds consisted of a plain, white masonite tray 1/4" thick and measuring 10" by 18" in surface area. The tray had two recessed containers 3" in diameter, one on the lower left, and one on the lower right hand side, to stimulate sorting. A tray of the same materials, but smaller in size (5" by 10") was used to present the stimuli to the 6 month olds. This reduction in size was necessary to accomodate the shorter reach of the younger infants. In addition, this tray had no recessed containers, both because a tray of this size did not allow room, and because trials with the 9 and 12 month olds, which were run first, showed that these infants made very little use of the containers.

Procedure

Each infant was seen for one laboratory session lasting about forty-five minutes. The 9 and 12 month olds were seated in a high-chair, and the 6 month olds in an infantseat. The infant's parent (usually the mother) sat to the infant's left, and was instructed to remain passive and not to initiate interaction with the infant during a trial. The tray with a set of stimulus objects was placed in front of the infant without verbal instructions or modelling. The stimuli were arranged on the tray in a prescribed "random" order used by Riccuiti (1965) as shown in Figure 1. The placement of object groups was varied systematically so that half the infants received a group of stimuli placed on the "x's", and the other half received the same group placed on the "o's". The infant's spontaneous manipulation of the objects was recorded on videotape. The order of presentation of the eight sets of stimuli was determined by an 8 x 8 Latin Square design (Fisher and Yates, 1963) which produced 16 different orders. One male and one female in each age group were assigned to each order. Each presentation lasted not more than three minutes. If the infant showed little interest in an object set, the trial was terminated at the end of two minutes. If the infant sorted the objects into separate groups, or knocked or threw most or all of the objects from the tray, the objects were again placed in their original positions on the tray. This procedure was repeated until the end of the three minute period.

Dependent Variables

The following dependent variables were coded by two observers from the videotape record made of each infant's behavior.

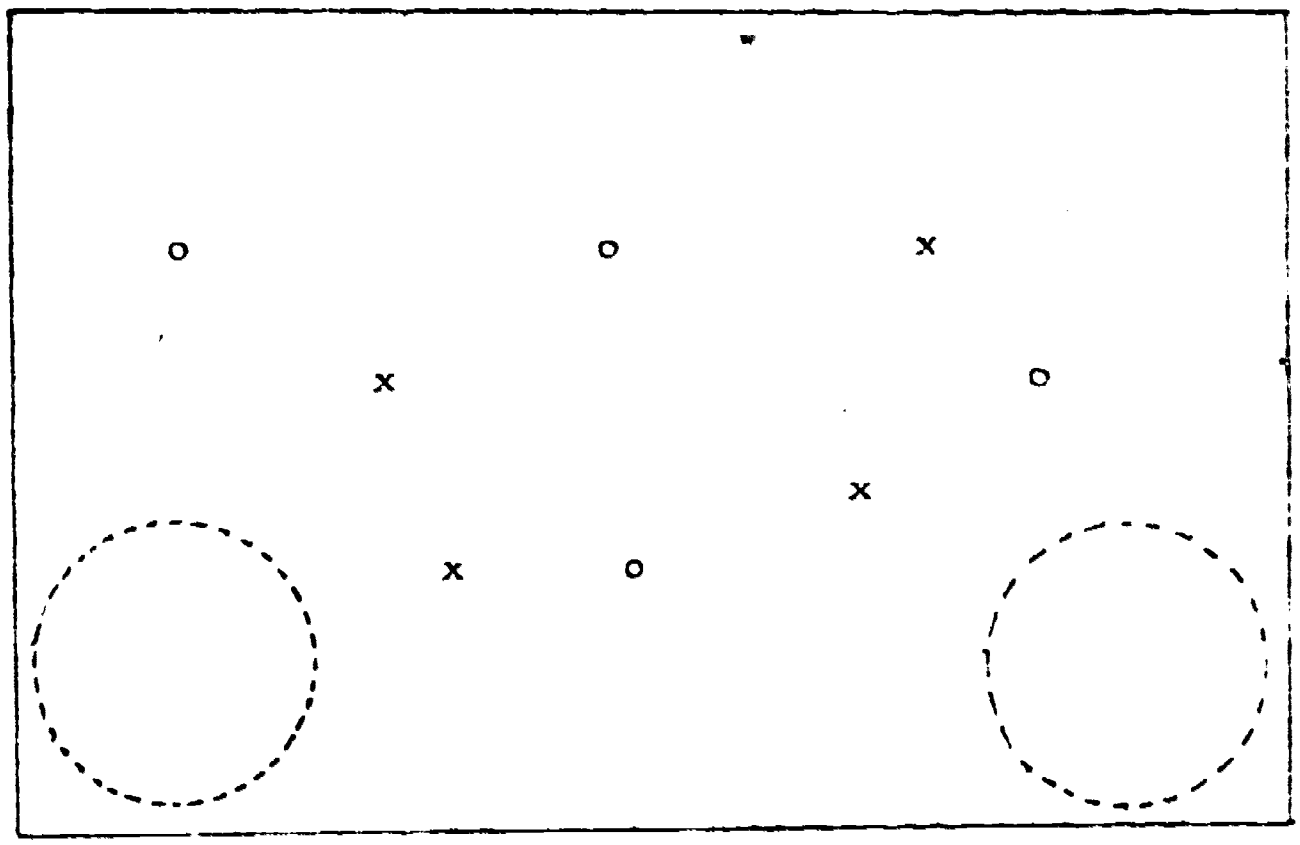

Figure 1 : Position of stimulus objects on tray. x marks the location of one group of objects, and o marks the location of the second group. Circles represent recessed containers on tray presented to 9 and 12 month olds.

Reliabilities for these variables were high, ranging from a low of .90 to the maximum of 1.0 .

Sequential Touching: Picking up or touching like objects in sequence. Four levels of sequential touching were coded, representing different degrees of proficiency in sorting the objects.

Level 1: All four of one kind of object followed by all four of the other kind are touched in sequence.

Level 2: All four of one kind and three of the other, or three of one kind and three of the other are touched in sequence.

Level 3: All four of one kind of object are touched in sequence.

Level 4: Three of one kind of object are manipulated sequentially.

Object Grouping: Putting like objects into a pile or physical grouping. Four levels of object grouping were coded.

Level 1: Three or four objects of each kind are constituted as a group and separated from the other objects.

Level 2: All four objects of one kind are constituted as a group and separated from the other objects.

Level 3: Incomplete or partially correct groups are formed and separated from other objects (three of one kind or four of one kind plus one other).

Level 4: Two similar objects are placed or held together and separated from remaining objects.

While Level 4 of both sequential touching and object grouping is not considered as a demonstration of awareness that all four objects in a group belong together, it is seen as an indication of the discrimination of a particular object type. This necessary preliminary to sorting was coded to see whether and to what extent its occurrence preceeded the more rigorous criteria for object categorization.

Attention to task: a. The amount of time an infant spent looking at the test stimuli. b. Time spent looking away for each of the eight trials.

Additional information which was recorded included the type of object touched first in each object set.

Results

The test for order of presentation effects and effect of position of stimulus objects was done with the nonparametric sign test. Analyses were performed on frequencies of sequential touching and object grouping across age and sex. The sequential touching data required a nonparametric analysis due to lack of homogeneous data (Cochran's C= 0.553 , p =0.02). Two-group comparisons within and collapsed across levels were made with the Mann-Whitney test. All other analyses were done by parametric analysis of variance. The Neumann-Keuls was used for post-hoc comparisons, and t tests for two-group within-level comparisons.

Order and position effects: There were no effects for position of stimulus objects. A sign test yielded a nonsignificant Z of 0.71. Likewise, no effects for order of presentation of stimulus sets were found (sign test, Z = 0.65).

Sequential touching: Preliminary analyses revealed no sex differences at any of the three age groups. The data were collapsed across sex and the Kruskall-Wallace One-Way Analysis of Variance by Ranks yielded a significant effect for age (H = 6.8 , $p<.05$ for 2 d.f.). The frequency of sequential touching tended to increase

with age at all levels, as can be seen in table 1. Figure 2 gives this information in graphic form. Sequential touching is also more common at the higher numbered levels which represent less rigorous sorting. The most dramatic differences occurred between infants of six months and the two older age groups. At 6 months, sequential touching was rarely observed. Only three infants (19% of those tested) performed Level 4 sequential touching, the most primitive type coded. This compares with 15, or 94% of the 9 month olds, and 16, or 100% of the 12 month olds. The differences between 6 months and the two older age groups were significant at the .01 level.

The results for Level 3 sequential touching are similar to those found for Level 4. At 6 months, no infant touched four like objects sequentially, while 50% of the 9 month olds, and 69% of the 12 month olds did attain this level of proficiency in sorting the stimuli. These differences were significant at the .05 and .01 levels respectively.

Levels 1 and 2, which necessitated sequential touching of both groups of objects in a stimulus set proved too difficult for the great majority of infants tested. The first occurrence of Level 2 came at 9 months, and of Level 1 (sequential touching of both groups with no errors) at 12 months. No 6 month olds spontaneously performed at these levels. Only 1 infant at 9, and 7 infants at 12 months comprised the totals for Level 2. Level 1 appeared a single time, and this at the oldest age group. As can be seen in table 1, there was a significant difference between 6 and 12 months ($p < .05$) and between 9 and 12 months ($p < .05$) at Level 2, while the totals for Level 1 were all so small that no significant differences occurred.

In contrast to the sizeable differences in instances of sequential touching and in the number of infants accounting for these changes between 6 months and the two older age groups, there was only 1 significant difference between 9 and 12 months, which occurred at level 2. This happened in spite of the fact that at every level the number of instances of sequential touching increased from 9 to 12 months. In part this must be due to the fact that at 9 months a large percentage of infants are already showing Levels 3 and 4 type sorting, and large changes in these totals either cannot be expected or are not possible. At Level 2, however, it seems that for the 9 month olds the sequential manipulation of two groups is still not within their grasp, while by 12 months this ability has undergone substantial development.

Object grouping: Since no sex differences appeared in the preliminary analyses at any age group, the data were collapsed across sex. A One-Way Analysis of Variance yielded a significant effect for age ($F = 4.96$, $p < .05$ for 2,45 d.f.). The pattern of results for object grouping was similar to that described above for sequential touching. The frequency of object grouping increased with age, and the higher numbered levels, which indicate less sophisticated object grouping, appeared most often. The data for object grouping is presented in quantitative form in Table 2, and in graphic form in Figure 3.

An examination of the frequencies of object grouping found in table 2 reveals that object grouping does not occur at 6 months. Even the activity represented by Level 4, of pairing 2 similar looking objects and separating them from the other objects on the tray, which is preliminary to object grouping, occurs only 5 times,

for 31% of the 6 month olds. This is in contrast to the behavior evinced by the 9 month olds, who formed these two-object groupings 32 times, involving 81% of all 9 month olds. The 12 month olds form two-object groupings even more often, with 57 instances observed involving 98% of this age group. The difference between 6 and 9 months is significant at the .05 level, and between 6 and 12 months at the .01 level. The increase between 9 and 12 months does not reach significance.

None of the first three levels of object grouping, which involve separation of at least three objects of one kind, appeared at 6 months. At 9 months, only 13% of the infants tested made partial or incomplete groupings (Level 3). At 12 months the percentage rose to 44, a significant increase ($p < .05$). Neither Level 1 nor Level 2 , both of which require physical separation and grouping of both groups of objects in a set, are found until 12 months. At this age 43% (7 of 16) of the infants make two groups, but only 1 infant does this perfectly, with no omissions or incorrect inclusions.

Attention to Task: A One-Way Analysis of Variance revealed no significant differences in the amount of time infants at the three age groups spent attending to the stimulus objects ($F = 2.075$, $p = 0.135$ for 2, 45 d.f.). The younger infants however, do have a tendency, which does not reach significnace, to look longer than the older infants. The average time a 6 month old spent looking at one of the eight stimulus sets was 99.4 seconds. The 9 month olds spent somewhat less time, averaging 94.5 seconds. At 12 months looking time again decreased to 90.7 seconds.

Effect of stimulus differences on object manipulation: The eight sets of stimuli used in the study differed greatly in their ability to elicit categorizing behavior from the infants. The frequencies for which either sequential touching or object grouping occurred relative to a given stimulus set appears in Table 3. These frequencies include Levels 1-3 of both sequential touching and object grouping for 9 and 12 months (6 month olds did not reach these levels which involve active touching or separation of at least one complete group of objects from a two-object set). Other information provided in Table 3 includes the number of dimensions of difference between objects in a given set, and the number of times each type of object in a set was touched first. The latter provides a measure of object preference or salience. The more often one type of object is touched first in a two-object set, the more preferred or salient it is to the infants in the study.

As can be seen from Table 3, dimensions of difference between the objects in a stimulus set can be used as a general predictor of how much categorizing/sorting behavior will occur for that set. Stimulus sets with objects that differed on three dimensions (sets C , A , D , G , and F) elicited more sorting than sets that differed on only one or two dimensions. Likewise, the set that differed on two dimensions elicited more categorizing behavior than sets that had only one dimension of difference.

Table 3 also provides us with the amount of sequential touching and object grouping that occurred among object sets for which number of dimensions of difference are held constant. It can be seen that the degree to which one object in a stimulus set was preferred over the other, as indicated by the first touch ratio, correlated highly with amount of categorizing behavior. Set C,

a stimulus set with 3 dimensions of difference, had one object type that was touched first by 28 of 32 infants. The other object in the set was touched first by only 4 infants. This set was separated into groups more often than stimulus sets which contained objects of more equal salience. With one exception, involving sets D and G, this type of comparison holds true for all sets used. In the case of sets D and G, whose first-touch statistics were highly similar (20-11, and 19-13) the frequency count was a tie , or 14 grouping behaviors for each set. If a tie were to be predicted, it would be for sets for which the first touch frequencies were close to one another. On the other hand, where the first touch frequencies were widely divergent for object sets with the same number of dimensions of difference (sets A and F, for example), there occurred a parallel divergence in amount of sequential touching and object grouping. This was found for object sets of both three and one dimensions of difference. Since the stimuli utilized only one set with two dimensions of difference, no comparison of sorting for this stimulus type could be made.

Discussion and Conclusions

The primary purposes of this study were to investigate the development of infant sorting/categorizing of two-group sets of stimulus objects, and to explore some of the factors that influence the frequency of this phenomenon. Particular attention was given to 6 and 9 month olds because spontaneous sorting had not previously been observed at these ages. The results of this study indicate that infants of 6 months do not recognize, as evidenced by their object manipulation, that four stimulus objects of one kind are part of a group. They do not physically separate or sequentially touch

any four like-object group in any of the eight stimulus sets. An infant's ability to make this kind of distinction did not appear until 9 months. By 12 months, object grouping and sequential touching had become common phenomena, occurring at all levels of proficiency, and observed in the great majority of infants.

Even though the 6 month olds did not engage in what could be called "sorting" or "categorizing" of the stimulus objects, they did distinguish between types of objects, as shown by the fact that two-object pairs were constituted five times, and sequential touching of three objects of one kind occurred on three occasions. These examples are not considered to be random phenomena because they involve active visual comparisons between objects on the part of the infant. It should be noted, however, that these frequencies are far below those found at 9 and 12 months.

Given that at least some of the 6 month olds did distinguish differences between the stimulus objects, it becomes possible to ask why they did not actively distinguish between object groups, as did the older infants. One possible explanation could involve the amount of time the 6 month olds spent attending to the task. If they failed to attend to the stimulus objects, they could hardly be expected to sort them with any degree of skill or consistency. However, the attention data rule out this explanation. The 6 month olds attended to the stimuli slightly more than the two older age groups (the difference was not statistically significant- see results section for full description). This leaves us with the possibility that the object manipulation of the 6 month olds differed qualitatively from that of the older infants. An examination of the video-tape records supports this conclusion.

Two factors seem to enter into the 6 month olds' lack of object sorting. The first factor has to do with motor skill. At six months the young infant's motor skills are not highly developed. While they did pick up the stimulus objects with effort, they did so clumsily and with frequent mishaps. Reaching and grasping has yet to be perfected at 6 months, and the infants often seemed to reach for one object and end up with another, or none at all. They also had difficulty grasping more than one object at a time, a talent which is very useful for object grouping. Even if the 6 month olds had wanted to engage in the behaviors described here as "sorting", they would probably not have had the motor ability to do so.

The second factor contributing to the 6 month olds' lack of object sorting consists of what might be called "distractability". It was very common to observe a 6 month old reaching for an object, beginning the arm movement with a direct, unhurried motion so that his goal was obvious, only to see his hand veer off at the last moment because another object on the periphery had caught his attention. There were many instances when a 6 month old touched two objects of one kind in sequence, and started to reach for the third, only to change his/her mind before completing this Level 4 series. To some extent this may be attributable to the complexity of the stimulus array. Eight objects may be too many for this age infant to deal with in a planful manner. Much of the 6 month olds' object manipulation might be described by the adjective "disorganized".

Another observation arising from the object manipulation data concerns the infants' ability to sort both object groups of the two-group stimulus sets. No 6 month olds performed sorting of this kind,

and at 9 months only 1 instance appeared (see Table 1, Level 2, for 9 months). By 12 months the sequential manipulation of both object groups in a set could be seen in 44% of the infants, and physical separation of both object groups had occurred. This suggests that the infants' ability to sort and categorize the stimulus sets consisting of two groups of four objects each followed a pattern. At 6 months infants paired two like objects. By 9 months infants were able to sort out one complete group from the two-group stimulus sets. Not until 12 months could infants regularly sort both groups of four objects. This progression implies an increase in the infants' ability to deal with a complex stimulus arrangement in an organized, consistent fashion.

A final observation relates to the properties of stimulus sets that influence the frequency of sorting behavior. As noted in the results section, the number of dimensions of difference between the two object groups within a stimulus set acts as a good predictor of the frequency of sorting behavior. This is in agreement with the conclusions drawn by Riccuiti (1965). The present study asserts, in addition, that a more finely tuned prediction of the amount of spontaneous sorting to be expected can be made by taking account of the relative salience of the two object groups within a stimulus set, when dimensions of difference are held constant. This adds a new tool for use in understanding the spontaneous object manipulation of young infants.

This study has left many aspects of infant sorting behavior unexplored. Two in particular seem worth mentioning. First, it seems possible that given a simpler stimulus array, 6 month olds might engage in a type of sorting behavior not unlike that seen in the older infants. The use of two two-object sets might test

this possibility. Secondly, the effect of dimensions of difference between object groups on overall sorting frequency has not been fully explored. While stimulus sets of three dimensions of difference were well represented here, those of two and one were not. Much more could be done to test the robustness of the relationship between dimensions of difference, salience of stimulus groups, and sorting behavior described in this paper.

To conclude, this study supports the findings of Riccuiti (1965) and Nelson (1973) that infants do have the ability to discriminate between and categorize objects at an early age. It adds to the data from previous research the findings that categorizing behavior as evidenced by object manipulation makes its appearance sometime between 6 and 9 months, and that it is firmly established by 12 months. In addition, it is suggested that the amount of spontaneous sorting activity that can be expected from a given stimulus set can be predicted by the number of dimensions of difference between , and the relative salience of the two object groups.

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Table 1

Number of instances of sequential touching for 6, 9, and 12 months. Numbers in parentheses indicate no. of infants accounting for total

	6 months	9 months	12 months	Statistical significance * ** 6-9	6-12	9-12
Level 1	0	0	1	n.s.	n.s.	n.s.
Level 2	0	1 (1)	7 (7)	n.s.	*	*
Level 3	0	18 (9)	37 (11)	*	**	n.s.
Level 4	3 (3)	58 (15)	69 (16)	**	**	n.s.
Total	3	77	114			

* p .05
** p .01

Table 2

Number of instances of object grouping by age and sex. Numbers in parentheses indicate no. of infants accounting for total.

	6 months	9 months	12 months	Statistical* ** significance		
				6-9	6-12	9-12
Level 1	0	0	1 (1)	n.s.	n.s.	n.s.
Level 2	0	0	8 (6)	n.s.	*	*
Level 3	0	2 (2)	12 (7)	n.s.	*	*
Level 4	5 (5)	32 (13)	57 (14)	*	**	n.s.
Total	5	34	78			

* p .05
** p .01

Table 3

Dimensions of difference, frequency of categorizing, and first touch data for all stimulus sets.

Stimulus Set	C	A	D	G	F	B	E	H
Dimensions of difference	3	3	3	3	3	2	1	1
Frequency of Categorizing	20	17	14	14	9	8	4	1
First-touch data. Most preferred vs. less preferred	28-4	27-5	20-11	19-13	18-10	21-9	24-5	20-9

FIGURE 2

Instances of sequential touching for three ages, collapsed across sex.

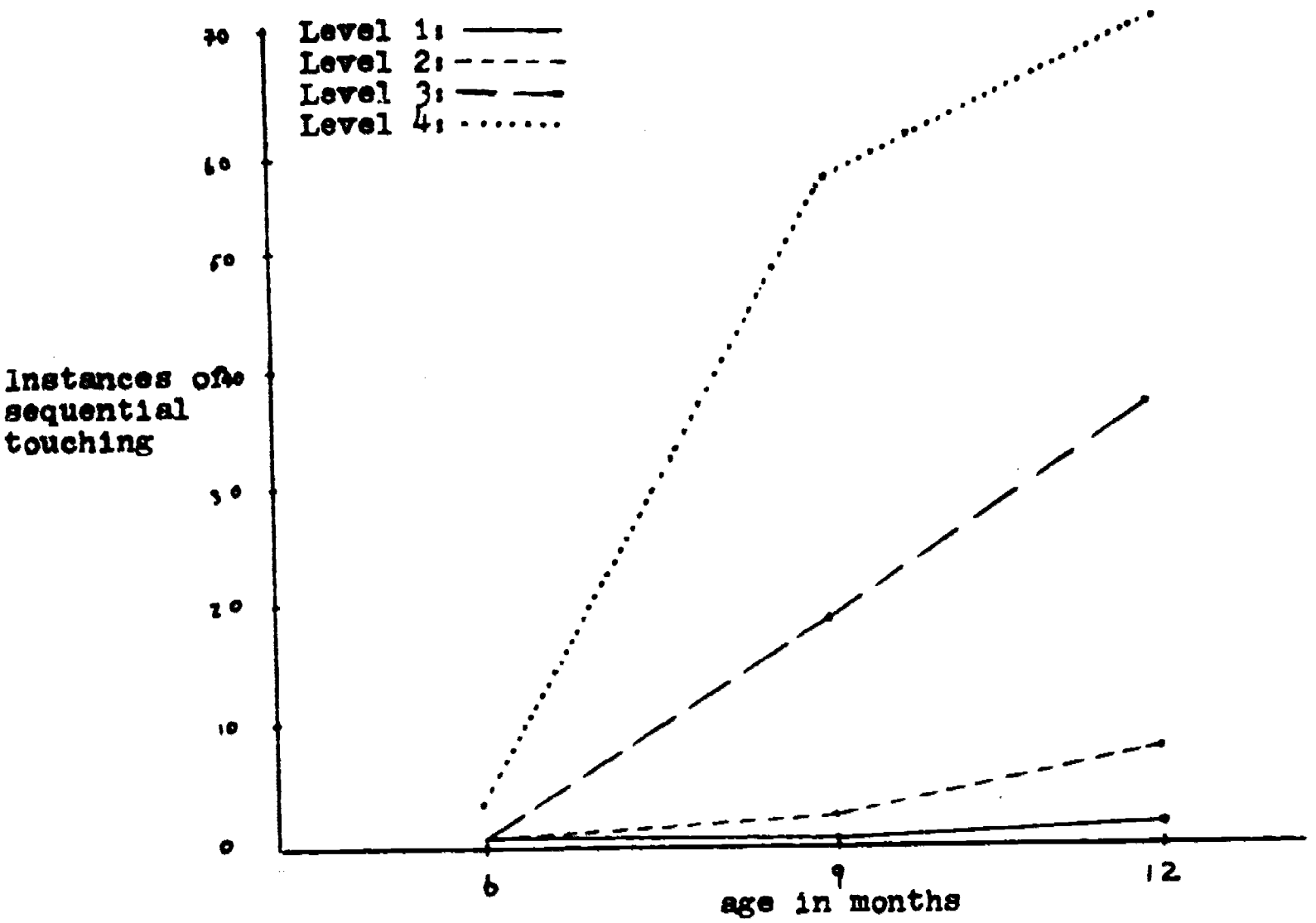
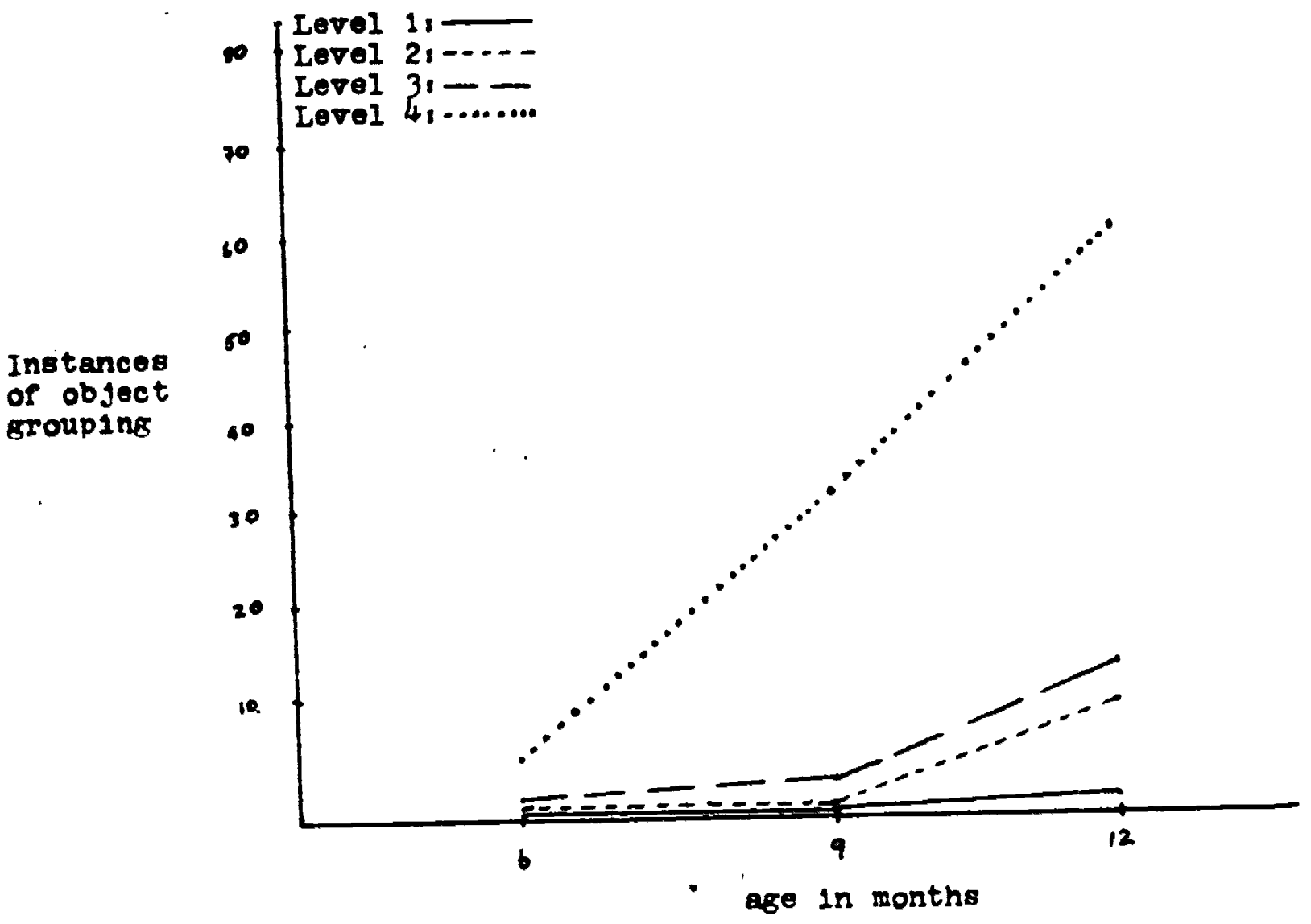
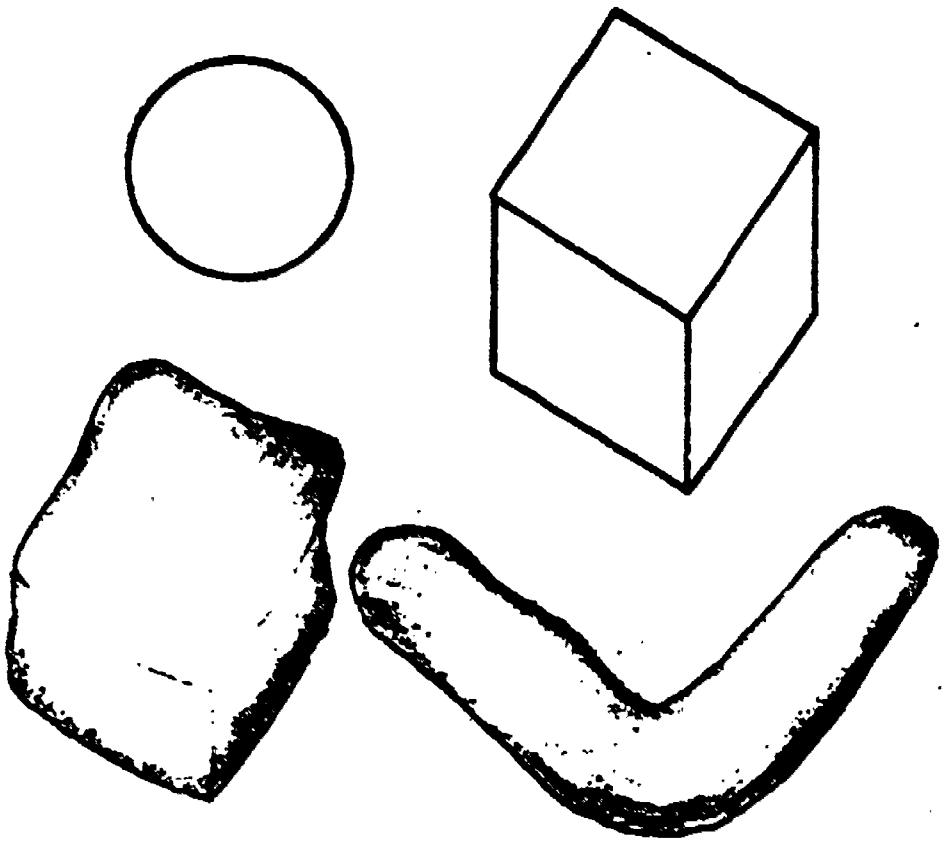


Figure 3

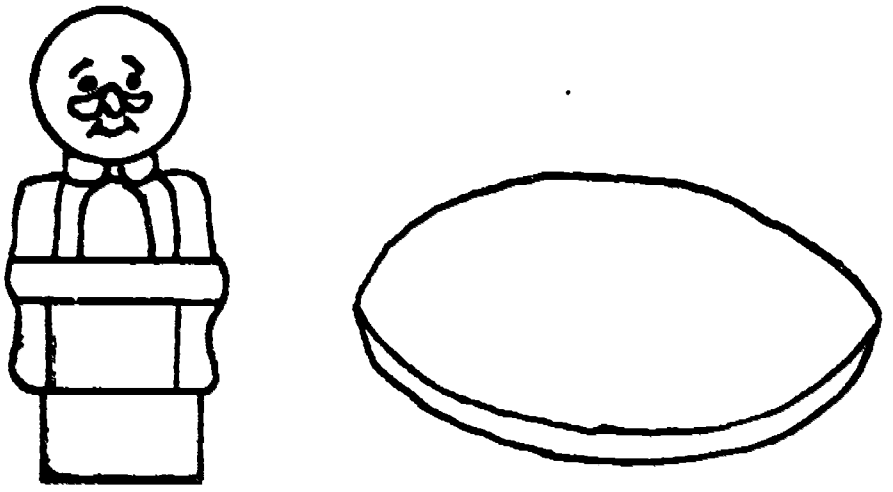

No. of instances of object grouping
Level 1:
Level 2:
Level 3:
Level 4:
Instances of object grouping
90
70
60
50
40
30
20
10
6
9
12
age in months

A. CLAY BALLS / YELLOW SQUARES

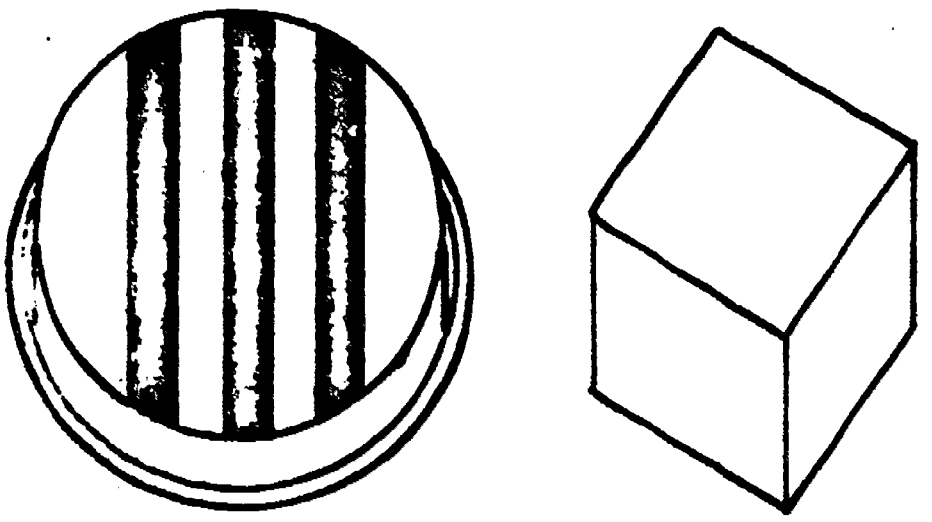


B. RED SQUARES / RED HOOKS

C. PEOPLE / YELLOW OUALS

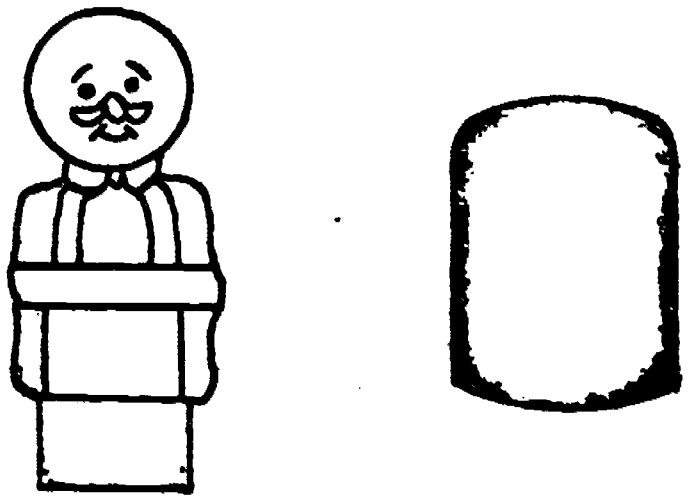


D. STRIPED CAPS / YELLOW SQUARES

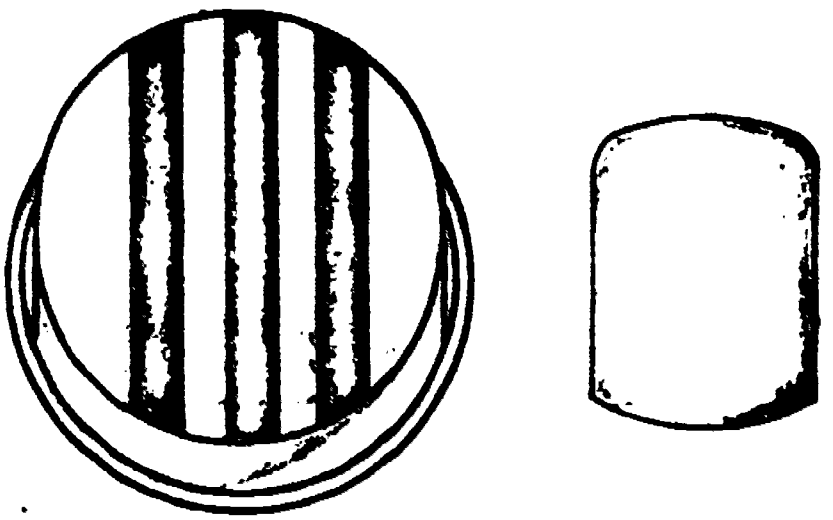


E. LARGE RED OVALS/
SMALL RED OVALS

F. PEOPLE/RED BROOM
HANDLES



G. STRIPED CAPS/BROOM
HANDLES



H. FLAT YELLOW OVALS
/FLAT YELLOW
RECTANGLES