What's in a Name? A Study of How Children Learn Common and Proper Names

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Katz, Nancy; Baker, Erica; and Macnamara, John. What's in a Name? A Study of How Children Learn Common and Proper Names. Child Development, 1974, 45, 469-473. This paper studies the processes whereby small children (17-24 mo.) learn common and proper nouns and learn how English distinguishes between them. Our thesis is that within certain classes of objects (e.g., people), the children first discriminate individuals and then learn their names, whereas among other classes of objects (e.g., spoons) they do not discriminate individuals, and learn names only for the class. These two processes enable the children to learn the syntactic distinction between common and proper nouns. The thesis is supported by two sets of experimental data derived from a total of 80 children.

All languages distinguish between two categories of words, the one to refer to classes of objects, the other to individuals. There is great variation across languages in how the categories are treated linguistically. In English, as in most Indo-European languages, there are common nouns and proper nouns. We talk of a “spoon,” “the spoon,” “spoons,” “some spoons,” “many spoons”; with rare exceptions that need not concern us here we do not so qualify and modify proper nouns like “Peter” or “Mary.” Children have to learn such linguistic rules and employ them in their own speech. Presumably they begin by detecting them in other people's speech. This paper deals with how they manage the detection.

Following Macnamara (1972), we hypothesized that the reason children are able to learn the distinction between common and proper nouns and the syntactic marking of that distinction is that they have previously made the relevant distinction among the referents. The individuality of the members of some classes has been thrust upon them, whereas that of the members of other classes has not. One spoon, for example, is usually as good as another. But with people it is different; it must be your own mother you go home with, not just any lady who happens to be about. Children must spot that spoons are not given individual names, one for each, whereas women are. This must afford them the clue they need to notice that there are two types of name which are governed by different linguistic rules. Their task is complicated by the fact that individual women can also be referred to by common nouns, such as “woman” or “lady.” We imagine that the children handle this by observing that individual women have special names which are (at least in the children's world) peculiar to the individual, whereas names such as “woman” or “lady” are shared by all women. That is, women are sometimes to be considered as individuals and sometimes as members of a class, just like spoons.

Reported here are the results of several investigations that test the main line of our reasoning. Our plan is to see if small children tend to treat differently a name given to a doll and one given to a block. Do they tend to take a name given to a doll as particular to that doll and to take the name given to a block as common to many blocks? This is the basis for our first experimental variable, dolls or blocks. We also varied syntax by adding or not adding the articles “a” or “the” before the name given to the doll or the block.

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Experiment 1

Method

Materials and procedure.—Our tests were carried out with a pair of small plastic dolls and a pair of large plastic blocks. The dolls differed only in hair color, one being blonde and the other brunette. The two dolls wore dresses of the same color, shape, and material, and, hair color apart, were identical in appearance. One block was red and one was yellow, but they were the same in shape, size, and texture. To make them somewhat more comparable with the dolls in perceptual complexity, around each block we tied a green and purple ribbon.

Each child was tested only once, either with a pair of dolls or with a pair of blocks. In the test one of the objects was named with a nonsense syllable; the other object was not named. For half the Ss the name was syntactically marked as a common name; for the other half it was marked as a proper name. For example, the first words to a child who was tested in the common-noun condition were: "Look what I’ve brought you. This is a zav." In subsequent conversation the named object was called "the zav." In the proper-noun condition the article was omitted—in the example the named object was simply called "zav" throughout.

There were four conditions: dolls and common noun, dolls and proper noun, blocks and common noun, blocks and proper noun. The particular doll or block named was counterbalanced across children. The following nonsense syllables were used: zav, mef, roz, kiv, per, jop, wug, zon, tiv, vit, neg, cak. Each syllable was employed an equal number of times with blocks and dolls. Any particular child, of course, learned only one nonsense syllable.

Each of the pair of objects was drawn to a child’s attention at least five times. Named objects during this learning period were always called by their name. The other object was called "the other one" or "this one." Then testing began. Both objects were placed within reach of the child and he was asked to perform some action with the named one. If the objects were dolls he was asked to dress, undress, feed, hold, or bring the named doll to his mother. If the objects were blocks, he was asked to take the named block, to give it to E, to show it to his mother, to put it on a pencil, to put it in a house, and the like. The important datum was whether or not the child performed the operation on the named object. Whether he did or not, questions and demands were repeated several times, but in various sequences. Since flexibility is important in dealing with children, a tightly fixed schedule of testing was not followed. The session was terminated when the child indicated lack of interest or weariness, but nearly every child was tested at least seven times and many were tested 10, 12, or even 15 times. The main result for each child was the proportion of times he chose the correct (named) object.

Subjects.—The main group of Ss comprises 30 girls whose average age was just under 22 mo. and 25 boys whose average age was just over 24 mo. As far as possible girls in the different conditions were matched for mean age, but those who were tested with blocks, one of which had received a proper name, were, on the average, 3 mo. younger than the other girls. The boys in all four conditions were closely matched for mean age.

The children were all from middle-class homes in the west end of the Island of Montreal. All were native speakers of English, and all were tested at home.

Results and discussion.—Tables 1 and 2 show the mean results for girls and boys, respectively. Fifty percent correct responses are expected by chance alone, since there were only two stimuli. Thus, with one exception the response pattern in each condition of the two tables is roughly a random one.

However, girls who were tested with dolls tended to choose the right doll provided it had been called by a proper name. A one-way analysis of variance showed that the tendency was significant, $F(3,26) = 44.57, p < .01$. There is no need of further testing to show that the significance is due to the high level of correct responses to which we have just drawn attention.

### Table 1

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<thead>
<tr>
<th></th>
<th>Common Noun</th>
<th>Proper Noun</th>
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</thead>
<tbody>
<tr>
<td>Dolls ($N = 10$)</td>
<td>48 (.10)</td>
<td>75 (.13)</td>
</tr>
<tr>
<td>Blocks ($N = 5$)</td>
<td>44 (.17)</td>
<td>48 (.14)</td>
</tr>
</tbody>
</table>

Note.—Standard deviations in parentheses.
TABLE 2

<table>
<thead>
<tr>
<th>MEAN NUMBER OF CORRECT RESPONSES GIVEN BY BOYS (IN PERCENTAGES)</th>
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<tbody>
<tr>
<td><strong>Common Noun</strong></td>
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<tr>
<td>------------------</td>
</tr>
<tr>
<td><strong>Dolls</strong></td>
</tr>
<tr>
<td><strong>Blocks</strong></td>
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</tbody>
</table>

*Note.*—Standard deviations in parentheses.

On the other hand, boys showed no significant departures from random response patterns, $F(3,21) = 0.71, p > .05$. With so clear-cut a difference between boys and girls, it does not place an undue strain on statistical reasoning to ask why. We have not attempted to locate the reason experimentally, since it is of only marginal interest, but the most likely one is that boys are seldom given dolls as presents and they are seldom encouraged to play with them. The dolls we used were of female figures. Perhaps the expected results could be obtained with boys if they were tested with toys which, while being likely subjects for proper names, are more familiar to boys. Or perhaps boys who were older would reveal the same response patterns with dolls—see McCarthy (1954) for the extensive evidence that boys develop linguistically later than girls.

To return to the single significant result, we asked each mother whether she had taught her child names for dolls. Only eight said yes, and they are randomly distributed over the conditions of both tables. It seems quite unlikely, then, that the significant results are to be attributed to a training in calling dolls by proper names. They seem to arise from the fact that little girls see dolls as surrogates for people; and just as people need proper names, so do dolls.

So far our predictions have been upheld. But why should the children have taken account of the presence or absence of the linguistic markers for a common noun? The girls seem to have taken account of this only in connection with dolls, not with blocks. We will come back to this important fact in the Conclusion because it contains a clue to the direction of development. The fact that the girls did distinguish between the presence or absence of the article before the name of a doll is also important. It suggests that already by 22 mo. they were beginning to take account of the fact that some objects are treated both as individuals and class members. All this, which we will take up again in the Conclusion, argues a surprising knowledge on the part of such young children. The slightly older children studied by Brown and Fraser (1964) and by Miller and Ervin (1966), for example, rarely and fitfully employed "a" or "the" in their speech production. It is interesting that, when they did employ these words, they nearly always did so correctly. Our data reveal the expected advance of comprehension on production. Our second experiment is an attempt to examine the steps by which children learn to treat some objects both as individuals and as class members.

**Experiment 2**

**Pilot study.**—Our thinking at this stage continued to be guided by the view that girls had used their knowledge of objects in the environment to discover the semantic force of the presence or absence of the article before a noun. We hoped that by taking younger girls we would find a stage where a name for a doll would be treated as a proper name irrespective of syntactic evidence. For this purpose we selected five girls whose mean age was 15 mo. and five whose mean age was 18 mo. They were similar in all other respects to the children we had tested in the first experiment, and we employed the same technique. However, as the work was merely exploratory we confined ourselves to working with dolls to which we gave a proper name. Our intention was, if we met with success, to fill in the other conditions of the design we had employed in Experiment 1.

The results were disappointing. The 15-month-old girls responded correctly only 43% of the time, while the 18-month-old girls did so 59% of the time. This meant that the older of the two groups was merely intermediate between the younger group and the still older group of the earlier experiment. It did not seem likely that much was to be gained with these materials by reducing age.

At this point a new idea struck us. We decided to increase the perceptual distinctiveness of the visual stimuli and again see if the younger girls would accept a name for a doll as a proper name irrespective of syntax.

**Procedure.**—We used the same dolls as previously, but we put new dresses of different colors on them. The dolls thus differed in color.
of dress and color of hair, but were otherwise similar. The blocks differed in shape as well as color. The procedure was the same as that of Experiment 1. Twenty-five girls similar to those of Experiment 1 were tested. Of these, 10 were of average age 17 mo. and 15 were of average age 22 mo. The younger girls were all tested with dolls only, five in each linguistic condition. Ten of the older girls were also tested with dolls, five in each linguistic condition, but the remaining five were tested with blocks, one of which was given a proper name. This design, though "incomplete," reveals the main effects of the important factors: the effect of linguistic conditions on both the younger and older girls who were tested with dolls of greater perceptual distinctiveness than in Experiment 1; the effect of increased perceptual distinctiveness in blocks upon older girls.

**Results.**—The results are set out in table 3. Analysis of variance (one-way) again revealed significant differences among means, \( F(4,20) = 2.87, p < .05 \). Clearly this is due to the high level of correct responses from both groups of girls who were tested with dolls when one doll had been given a proper name. In the other three conditions the level of correct responses seems random.

These results are a strong confirmation of the effects obtained in Experiment 1. The level of correct responses rises only when the girls were discriminating between dolls, and then only when one of them had been named with a proper noun. The younger girls performed quite as well as the older ones, and seem to have taken just as much account of the presence of the article. This argues that the linguistic competence discovered in Experiment 1 is to be found even at the age of 17 mo. On the other hand, increasing the perceptual distinctiveness of the blocks seems to have had no effect on responses.

**Conclusion**

Our investigations lend support to our theory. It seems that when children come to learn names for things, they already expect some things to receive proper names and others not to. But how do they proceed from there? We can effectively eliminate the possibility that they are determined by nature to notice definite and indefinite articles on the grounds that many languages, like Latin, do not have them. It would be odd to be equipped by nature to make a linguistic distinction which was not a linguistic universal (or a near universal).

It seems clear that the children we tested had noticed at least three regularities: (1) some individuals receive special names as individuals and some do not; (2) there are two types of names, one for individuals and one for classes; (3) names for individuals are not preceded by the article, whereas names for classes frequently are. By the age of 17 mo. the girls we tested had not only made these observations, but related them to one another. Moreover, rule (1) is quite general; it does not just apply to the individuals a child has happened to hear named, or to their proper names, but can be extended to new objects and new names. The children had never before heard those names or seen those dolls. The other two rules are equally general.

One other point seems clear. The fact that the children made use of the linguistic evidence (that a noun was proper) only in connection with the dolls suggests that their capacity to use that evidence was grounded on a prior classification of objects. If it were the other way around, if the classification of objects were grounded on the linguistic distinction, one would expect the linguistic evidence (that a noun was proper) to apply to both types of object, blocks as well as dolls. From the fact that it did not, we can infer that the linguistic distinction is based on the prior distinction among classes of objects.

Our interpretation, then, of how children learn is this. Among some classes of objects (e.g., people) individuality is salient; among other classes it is not. This is the clue to a distinction between two semantically different types of names. By bearing in mind the semantic distinction, the child is in a position to detect its syntactic markers, that is, among other things, presence or absence of the article "a" or "the."
The degree of mastery is striking because even the 17-month-olds whom we tested had gone further and begun to take account of the fact that dolls could belong in both classes at once, the relatively undifferentiated class as well as the highly differentiated one. The children did not automatically take all names for dolls as proper nouns, but noted the presence or absence of the article to distinguish between common and proper nouns. This ability to accommodate revealed an appreciation that dolls (and presumably people) all share a common name (or even several such) while each may have in addition a special name for itself. How can we explain the ease with which 17-month-old girls handled these two notions? The following suggestion seems highly plausible. What children learn to begin with is that the individuals of certain classes are important as individuals. Thus, individuality is never merely that, but the individuality of a member of a class. The two notions are inextricably related from the start.

References


