10-1-1980

Vocabulary Acquisition During Elementary and Post-Elementary Years: A Preliminary Report

Martha Rapp Haggard
Northern Illinois University

WESTERN MICHIGAN UNIVERSITY

VOCABULARY ACQUISITION DURING ELEMENTARY AND POST-ELEMENTARY YEARS: A PRELIMINARY REPORT

Martha Rapp Haggard

NORTHERN ILLINOIS UNIVERSITY, DEKALB, ILLINOIS

Variables which contribute to language learning have been the subject of a great deal of research interest and study. Generally, research has concentrated on preschool language acquisition and, until the past decade, has supported the conclusion that language development is very nearly mature by about age six. Growing numbers of researchers, however, are acknowledging the need for research concerning language acquisition beyond the preschool years (C. Chomsky, 1969; Ruddell, 1976; Wardhaugh, 1976). Of specific interest are the developmental processes through which elementary and post-elementary children gain grammatical and lexical control of their language. Embedded in this larger concern are questions dealing with vocabular acquisition which Manzo and Sherk (1974) have identified as being singularly important, but relatively unresearched; specifically, (1) what condition or conditions precipitate the acquisition of new words? and (2) what strategy or strategies are used to incorporate new words into the speaking vocabulary? A third, and just as important concern, is whether the conditions and/or strategies change developmentally, and if so, what relationship this change has to current theories of cognitive development.

Elementary and post-elementary age cognitive development, according to Piagetian theory, includes the periods of *concrete operations* (ages 7-11) and *formal operations* (ages 11-16). Progress through these stages, which follow the *sensorimotor* period (birth-2) and period of *preoperational thought* (ages 2-7), is marked by qualitative changes in thinking which have to do with a person's "way of knowing" (Ammon, 1977; p. 160).

As the organism proceeds from one stage to another, three factors interact to regulate rate of progression: (1) maturation, (2) physical experience, and (3) social interaction (Piaget, 1967). Flavell (1977) emphasizes the organism's active search for selection and interpretation of environmental information, and neo-Piagetian theorists (Ammon, 1977) have attempted to specify more clearly those factors which account for individual differences in the selection of environmental stimuli. Pascual-Leone, for example, has suggested that of all the schemes which could be active in an organism at a given moment, those

which are active are determined by the activation weights of "scheme boosters." These scheme boosters may originate with forces inherent in the environment (F Operators); they may depend on affective or emotional factors (A Operators); or they may regulate the amount of mental energy available to perform mental transformations (M Operators). By attaching weight to various environmental stimuli, the scheme boosters determine not only which stimuli will be attended to, but the amount of mental transformation which will occur as well (Pascual-Leone, *et al.*, 1978).

This paper presents the results of two introspective studies designed to examine how and why elementary and post-elementary children learn new words. The original study will be summarized, and data from the subsequent study will be presented. Results will then be discussed.

THE ORIGINAL STUDY

Method

The study was conducted with a population of twenty-six college seniors enrolled in a reading methods class. The students were presented with three questions to determine if they could recall specific instances when new words were learned, and if so, what strategies were used. The questions were asked prior to discussion of language/vocabulary acquisition, and with no preliminary information given. The questions were:

1. Can you remember an incident when, as a child (between first and seventh grade), you incorporated a new word into your speaking vocabulary? If so, identify the word and describe the incident as fully as possible.
2. Can you remember an incident when, as a teen-ager or young adult, you incorporated a new word into your speaking vocabulary? If so, identify the word and describe the incident as fully as possible.
3. What personal strategy or strategies do you use for incorporating new owrds into your speaking vocabulary?

Results

The results yielded four major types of precipitating conditions for both the elementary and post-elementary years: (1) the word was said by an adult or older sibling and was appealing because of its sound or its "adultness;" (2) the word was learned as the result of an incident involving strong emotions; (3) the word was learned because it had immediate usefulness; and (4) the word was learned as a result of peer usage. The major differences which occurred between the elementary and post-elementary responses were the response frequencies for each category. At the elementary level, the most frequent response was category one — the word was appealing because of its sound or "adultness." Only one response was in the "peer group usage" category. At the post-elementary level, "peer group usage" was the most frequent response,

with only one response in the "appealing sound" category. Incidents involving strong emotion were all negative—embarrassment and shame— and responses in that category decreased with age. "Immediate usefulness" responses were generally school related at the post-elementary level, with only two responses indicating that the word was learned as a result of direct teaching.

Analysis of the responses to the strategies question revealed that, generally, a two-part procedure for learning new words is followed: first, meaning is obtained and then the word is rehearsed through repeated usage. The importance of rehearsal was stressed and, in most responses, emphasis was placed on the active search for both the meaning and the opportunity to rehearse.

STUDY II

Because of the small number and the homogeneous nature of the original study population, a second study was conducted to examine the same questions with a population different from the original one.

Method

Two sub-populations were chosen for the second study: Group A was comprised of twenty-three freshman students enrolled in a required English course; Group B was made up of twenty-one graduate students enrolled in a secondary reading methods course. The questions asked in this study were the same as those in the original study. They were asked with no preliminary information given and prior to discussion regarding language development.

RESULTS

Responses to the three questions were analyzed and tabulated for each group separately. Two responses at the elementary level (Group A) could not be categorized because the word was remembered but not the condition; one elementary response (Group A) related to learning English as a second language. There were a total of nine "no responses" (5 elementary; 4 post-elementary) which were spread evenly between the two groups.

PRECIPITATING CONDITIONS: ELEMENTARY

Four major categories of precipitating conditions were found.

I. *The words was said by an adult or older child and was appealing because of its sound or its "adultness."* (Group A, 5 responses; Group B, 9 responses). Parents, teachers and older siblings were listed most frequently as the source of the new word, with only one response stating explicitly that the word was learned in order to "feel big." Similarly, only one response stated directly that the sound was appealing ("I learned the word 'fickle' because it rhymed with pickle."). Implicit in the responses, however, is that acquisition is stimulated by an interaction between appealing sound and wanting to feel grown up. The words themselves attest to this (deign, foibles, lewd, fickle, pyrotechnics, in-

corporated, exhibitionist) and one response characterizes this relationship.

> My 5th grade teacher said to another teacher, "You look lewd in that dress!" I looked up the word since I was rather curious.

II. *The word was learned as a result of an incident involving strong emotions.* (Group A, 6 responses; Group B, 5 responses). Most of the responses here indicated that the emotion was acute embarrassment; however, differences were noted regarding the source of the embarrassment. Four of the six college freshmen recalled the shock of their first encounter with obscene words. Graduate students, on the other hand, reported that the source of their embarrassment was mispronounciation of words. Among those listed was the venerable pitfall "fatigue."

III. *The word was learned because it had immediate usefulness.* (Group A, 4 responses; Group B, 4 responses). Five of the responses were school-related (roommother, multiplication, amen, characterize, perturbed), with only one (perturbed) reported as learned through direct instruction.

IV. *The word was learned as a result of peer usage.* (Group A, 3 responses; Group B, 0 responses). Two responses were similar to type I responses, except that the source of the new word was a peer instead of adult or older sibling. The other respondent learned the word "wretched" because the neighborhood group of children called one member "Wretched Ritchie."

PRECIPITATING CONDITIONS: POST-ELEMENTARY

I. *The word was learned because of its appealing sound or "adultness."* (Group A, 1 response; Group B, 3 responses). Two of the responses indicated that phrases were learned because of their appealing sound (Aurora Borealis, reckless abandon). The word "malicious" was learned by one student because ". . . it was really great to know long words that no one else knew."

II. *The word was learned as a result of an incident involving strong emotion.* (Group A, 0 responses; Group B, 5 responses). All of the responses identified embarrassment as the emotion, with obscene words listed twice and mispronunciation once. One word, "ignominy" was learned in an unforgettable manner.

> During an English class, I was talking with another girl. We were reprimanded lightly and stopped, but then continued. (Our teacher was very easy-going and liked to goof around and get off the track, so I suppose we figured we weren't missing anything.) Suddenly, he stopped and pointed at us bellowing, "Ignominy! Ignominy!" That stopped us for sure. I never forget the meaning, and it became our class catchword that year, though it didn't stop the talking.

III. *The word was learned because it had immediate usefulness.* (Group A, 9 responses; Group B, 7 responses). Thirteen of the responses in this category were directly related to classroom experience. Of these, two words were identified as having been learned through word list study.

IV. *The word was learned as a result of peer usage.* (Group A, 12 responses; Group B, 4 responses). Slang words and expressions comprised the majority of responses in this category (10/16), with eight of these identified by the College Freshman group. Such expressions as "cool your jets," "all right!" and "yo" were included. Supplied also by the College Freshmen were the terms "What a rush!" and "bong." Enter the drug culture.

The propensity of adolescents to play with language, mentioned earlier with "ignominy," was reported by both groups. The words "loquacious" and "dysmenorhea" became classroom or school catch-words, and apparently acquired many properties indigenous to cultural allusions. This phenomenon, along with the longevity of the allusions, is demonstrated by the comments concerning "dysmenorhea."

> This became an "in" joke in high school because it was our school nurse's fancy word for cramps. We just had our 20th reunion and the Mistress of Ceremonies incorporated it into her jokes.

One final subcategory related to peer usage was identified. The words "infatuation," "facade," "loathe," and "remiss" were learned through conversation with friends. Comments indicated that these words were supplied as labels for known concepts.

Total response frequencies for Precipitating Conditions: Elementary and Post-Elementary are summarized in Table 1.

TABLE 1

Total Response Frequencies for Precipitating Conditions:
Elementary and Post-Elementary

Category	Study II		Original Study	
	Elementary	Post-Elementary	Elementary	Post-Elementary
I. Sound/Adultness	14	4	9	1
II. Strong Emotion	11	5	4	1
III. Immediate Usefulness	8	16	4	7
IV. Peer Usage	3	16	1	12

Comparison of these frequencies reveals that, for each category, an inverse relationship exists between elementary and post-elementary

levels, and that the pattern of frequency increment from one category to another changes inversely between the elementary and post-elementary levels.

STRATEGIES FOR VOCABULARY ACQUISITION

The vocabulary acquisition strategy reported most frequently was to find the meaning of the word (Group A, 7 responses; Group B, 10 responses), and the method reported by most subjects was to look words up in the dictionary. A two-part strategy was identified by thirteen respondents (Group A, 4 responses; Group B, 9 responses) which involved obtaining meaning first and then rehearsing by trying the word out on family and friends. Ten responses (all College Freshmen) told *where* new words were found, e.g., school, home, watching T.V., etc., rather than how they were learned. Three responses could not be categorized.

DISCUSSION

Conditions Which Precipitate Vocabulary Acquisition

One of the most striking findings in this study is the influence of affect on vocabulary acquisition. This influence appears to take various forms and to be either long-term or episodic in nature. Immediately noticeable is the pattern of change which occurs within the identified condition categories between elementary and post-elementary years. This pattern is parallel to, and in fact reflects, the social development considered typical for passage from childhood to adolescence.

During the elementary years, parents, teachers, and older siblings form the group of significant others from whom words are learned. Wanting to "sound big;" i.e., to emulate, important adults evidently is a potent factor in word learning and it accounted for nearly one-half of the elementary responses. "Peer group usage," on the other hand, was the single most frequent response at the post-elementary level, indicating a shift of influence from family and teachers to friends.

The episodic influence of affect on vocabulary acquisition can be explained by the operation of activation weights on environmental stimuli. Informally, students have often described the phenomenon of learning a new word only to discover that, once sensitized to it, they encounter the word everywhere — *even in material recently read or heard*. The word, obviously, was always there, but was simply not attended to until it could serve a functional purpose. This phenomenon undoubtedly is the result of a complex of factors, but can be explained partially by the operation of activation weights upon existing stimuli: "Some schemes are activated more strongly, or weighted more highly, than others. Those schemes with the highest *activation weights* will be the ones that actually apply to (i.e., assimilate) the situation" (Ammon, 1977, p. 177). As was mentioned earlier, this weighting can be the result of A Operators (affective schemes), F Operators (forces inherent in the field), or M Operators (mental energy available), but whatever the

source of the weighting, it serves as the "final arbiter" in the selection of stimuli to attend to (Ammon, 1977).

Teachers were mentioned as a stimulus for vocabulary acquisition at both the elementary and post-elementary level; their influence, however, was almost always that of a *model* for vocabulary usage rather than as a resource for vocabulary study. Students heard and incorporated into their vocabularies many of the words used by teachers, but rarely remembered learning words as the results of direct teaching. Evidently, the A Operators (e.g., liking the teacher; wanting to sound adult) attached greater activation weights to those words than the F Operators (e.g., unknown words) could attach to word lists or other widely used teaching materials. The A Boosted words were therefore "selected" to be learned.

Selective attention resulting from the activation weights of A Operators appears to influence acquisition when words have particularly distinctive or pleasing sounds. Students reported that, especially as children, they often learned a word for no other reason than its sound — they liked rolling it around in their mouths and hearing themselves say it. This attraction to the sound of a word was often closely linked to the further positive feelings of sounding big, adult, grown up. Somewhat associated with this is the indication that adolescents enjoy playing with words which are unusual or exotic-sounding to their ears.

Strategies for Vocabulary Acquisition

The most noticeable finding with regard to strategies for vocabulary acquisition is that, at least for some words, acquisition is a conscious, deliberate, *active* learning process which follows a strikingly singular pattern. Students reported that they first demand meaning and then actively seek opportunity to apply the newly obtained knowledge.

Study II results do raise questions, however, concerning the importance of rehearsal in the process of vocabulary acquisition. It may be that deliberate rehearsal is not necessary for acquisition; on the other hand, it may be that implicit in the process of "getting the meaning" is a form of rehearsal which simply was not articulated by the respondents. Further questions are raised by the number of College Freshman responses which told where new words were found but not how they were learned. Although data were not collected for age, this was the youngest group, and their responses could represent a stage of metalinguistic awareness which is still developing during late adolescence.

CONCLUSIONS AND RECOMMENDATIONS

The major conclusion which can be drawn at this time is that social affect plays an important role in the process of vocabulary acquisition. Conditions which precipitate acquisition, (appealing sound/adultness, strong emotion, peer usage) are closely associated with both affect and social environment. Furthermore, the potency of these conditions

changes developmentally from childhood to adolescence in a manner which is consistent with social/emotional changes which occur during that same time period. This pattern suggests a reciprocity between the organism and its environment which is closely in line with the Piagetian view of the organism as an active participant in learning, as well as the influence of social factors on language development. Neo-Piagetian explanations of individual differences serve to identify further those factors operating within this reciprocal construct.

A second conclusion concerns educational attempts to assist in vocabulary development. Although many classroom-related words were identified in the "Immediate Usefulness" category, rarely were they learned as a result of traditional teaching methods. Generally, words were not learned from lists, but from teacher usage within the classroom. In addition, new vocabulary was most potent when words had particular significance for the individual, or could be applied to immediate experience or need. It appears that if educators are to be successful as facilitators of vocabulary acquisition, methods must capitalize upon the role of the teacher as a model of language proficiency and upon the needs and interests of the students themselves.

REFERENCES

Ammon, P. R. Cognitive development and early childhood education: Piagetian and neo-Piagetian theories. In H. L. Hom & P. R. Robinson (Eds.), *Psychological process in early education.* New York: Academic Press, 1977.

Chomsky, C. *The acquisition of syntax in children from 5 to 10.* Cambridge, MA: The M.I.T. Press, 1969.

Flavell, J. H. *Cognitive development.* Englewood Cliffs, NJ: Prentice-H, Inc., 1977.

Manzo, A. V. & Sherk, J. K. Some generalizations and strategies for guiding vocabulary learning. In L. Hafner (Ed.), *Improving reading in middle and secondary schools.* New York: MacMillan Publishing Co., Inc., 1974.

Pascual-Leone, J., Ammon, P., Goodman, D., & Subelman, I., Piagetian theory and neo-Piagetian analysis as psychological guides in education. To appear in J. M. Gallagher, & J. Easley (Eds.), *Knowledge and development* (Vol. 2) *Piaget and education.* Plenum Publishing Company, 1978.

Piaget, J. The genetic approach to the psychology of thought. In J. P. DeCecco (Ed.), *The psychology of language, thought, and instruction.* New York: Holt, Rinehart and Winston, Inc., 1967.

Ruddell, R. Language acquisition and the reading process. In H. Singer & R. B. Ruddell (Eds.), *Theoretical models and processes of reading* (2nd ed.). Newark, Del.: International Reading Association, 1976.

Wardhaugh, R. Theories of language acquisition in relation to beginning reading instruction. In H. Singer & R. B. Ruddell (Eds.), *Theoretical models and processes of reading* (2nd ed.). Newark, Del.: International Reading Association, 1976.