

아동의 언어발달에서의 모방의 역할 : 각 이론에 따른 연구절차 분석

THE ROLE OF IMITATION IN CHILD LANGUAGE DEVELOPMENT : DISCUSSION OF RESEARCH METHODS

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아동의 언어습득 과정에서의 모방은 흔히 볼 수 있는 현상이지만 한편 인간의 독특하고 신기한 일면이기도 하다. 이 모방에 관하여 그동안 많은 연구들이 되어왔으나 그 중요성이나 역할에 대한 연구들의 결론이 모두 일치하는 것은 아니다. 본 논문에서는 이 모방현상에 대한 그 동안의 연구들을 이론별로 분류해 보고 각 이론들이 모방의 역할을 밝히기 위하여 사용해 온 연구방법, 절차들을 분석해 보았다.

행동주의와 사회학습이론에서는 언어습득에서의 모방의 역할을 특히 강조하고 있으며 이 모방의 효과를 입증하기 위하여 다른 어떤 이론보다도 훨씬 조직적인 실험연구를 해 왔다. 이와는 대조적으로, 언어심리학적 접근에서는 언어습득에서의 생득성과 창의성을 강조하므로 모방의 역할은 중시하지 않으며, 모방의 정의를 엄격하게 규정하고 자연적인 관찰 중심의 연구를 주로 하여 언어습득에서의 모방의 역할이 미비하다는 결론을 내리고 있다. Piaget 중심의 인지발달적 접근에서는 모방을 인간의 전체 발달의 한 측면으로 보아 모방은 인지발달과 함께 점진적으로 발달되는 것으로 설명하고 있다. 특히 언어발달에서의 자연모방의 중요성을 강조하고 있으며, 대부분의 연구는 자연적인 관찰연구를 통하여 모방의 발달과정을 밝히고 있다.

언어발달에서의 모방의 역할에 대한 지금까지의 일치하지 않는 연구 결과들은 각각의 이론들이 나름대로 달리 모방을 정의하고, 언어의 다른 측면들을 다루어 왔기 때문으로 밝혀 졌다. 앞으로 언어발달이 아동의 발달 전체의 맥락 속에서 연구되어지고, 언어습득과정에서 보이는 아동들의 개인차까지도 고려되어지는 포괄적인 연구가 이루어지면 모방의 역할도 좀더 명백하고 일관성 있게 밝혀지리라 본다.

Introduction

Imitation is a common yet fascinating aspect of human behavior. It has been a popular subject for psychological inquiry,

and, as a concept, it has been assigned significant explanatory power in theories of both socialization and language development. Uzgiris (1981) suggested two functions of imitation: 1) it can serve to enhance a child's

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social relationship with an adult by “communication mutuality and shared understanding with another person”, and 2) it can function as a cognitive strategy for mastering new or incompletely understood behaviors. The role of imitation in language development has been the focus of both theory and research (Tager-Flusberg & Calkins, 1990). The prevailing assumption has been that a child needs to repeat the speech that s/he hears in order to learn it. Jespersen (1922, p. 135) argued that, “one thing which plays a great role in children’s acquisition of language and especially in their early attempts to form sentences is Echoism: the fact that children echo what is said to them”.

Although the importance of imitation in language acquisition has been dictated more by theoretical orientation than empirical observation, some recent research has yielded important findings. Ramer (1976) showed the potency of imitation as a process supporting lexical acquisition. Other researchers showed the effect of imitation on the acquisition of syntax and morphology (Bloom, Hood, & Lightbown, 1974; Clark, 1974; Whitehurst & Vasta, 1975). McTear (1978) demonstrated the effectiveness of imitation as a device for maintaining conversational exchange. Many studies have used the children’s imitation to assess their language (Berry, 1976; Rodd & Brain, 1970; Schwartz & Daly, 1978; Slobin & Welsh, 1973). Slobin (1973), for example,

suggested that through the use of controlled, elicited imitation the investigator can discover the child’s underlying linguistic competence. However, there have been many contradictory findings and the precise function of imitation in children’s language development is still debated (Tager-Flusberg & Calkins, 1990). As Snow (1981) pointed out, most of the different findings result from the application of different theories and different definitions of imitation. The different theories and the methods used to investigate the role of imitation will be discussed in the following sections.

Imitation in Language Development

Behaviorists and social learning theorists have especially stressed the role of imitation in language learning. The behaviorist view of language learning expects new behaviors to be imitated before they can be incorporated into an individual’s repertoire of behaviors. Skinner (1957) said that the establishment of echoic behavior (imitation) is useful in the process of language acquisition because it allows the short-circuiting of the process of progressive approximations. This theory suggests that the child initially imitates a model by chance. When this is reinforced, behavioral matching in general becomes rewarding and acquires the status of a secondary drive. Social learning theorists contend that imita-

tion is a unique process for the acquisition of novel behavior. They model behavior which the subject responds to, in order to facilitate the development and use of linguistic skills. Many treatment programs for language handicapped children have been administered using this approach (Berry, 1976b; Coggins & Morrison, 1981; Greeson, 1981; Haniff & Sieger, 1981; Lamberts & Burns, 1979; Schwartz & Daly, 1978).

The psycholinguistic approach in early 1960s gave us new conception of language and language acquisition process. The research of this approach did not suggest a significant role of imitation in the language acquisition process, but rather stressed the innateness and creativity of language acquisition. This research was influenced by Chomsky's transformational grammar and argued that what had to be acquired were deep structures and transformational rules. Neither deep structures nor transformational rules were thought to be recoverable from surface forms but imitations were based upon these surface forms. In the 1960s research based on transformational grammar revealed that a child's imitations were not grammatically progressive, but instead, reflected the child's productive language ability (Ervin, 1964; Fraser, Bellugi, & Brown, 1963; Rodd & Braine, 1970). Nevertheless, the use and function of imitation in child language has been a continuing concern of modern psycho-

linguistic research.

Cognitive developmental theorists have viewed imitation as an aspect of an individual's total cognitive functioning. Piaget (1962) showed that the imitative function undergoes transformations as the individual develops, and the level of structural organization of the individual directly influences her/his imitation. The individual therefore only imitates models according to the cognitive structure s/he has available. He said, "Two conditions then are necessary before imitation can occur. The schemas must be capable of differentiation when confronted with the data of experience, and the model must be perceived by the child to be analogous to results he has himself obtained, i. e., the model must be assimilated to a circular schema he has already acquired"(p. 8). He stressed deferred imitation for language development, which is no longer dependent on the actual action; i. e., the first reproduction of a model's behavior does not necessarily occur when the model is present, but may occur when the model has been absent for some considerable time. He argued that the child becomes internally capable of imitating a series of models in the form of images. Then the imitation begins to reach the level of representation. Many cognitive investigators, like Piaget, have demonstrated developmental changes in imitation (Clark, 1977; Masur & Ritz, 1984; Stine & Bohannon, 1983; Uzgiris, 1972;

Yando, Seitz, & Zigler, 1978).

Overview of the main methods used for data collection

Different theories have required different methods for data collection. As explained above, many theories concerned with the imitation of children have defined imitation differently according to their theoretical perspectives.

As imitation is a very important mechanism for learning theorists to explain language acquisition, their studies have been more structured than other studies to ensure the effect of imitation in language learning. Greeson (1981), for example, prepared two programs to demonstrate a significant increase in verbal expression in black preschool children from poverty backgrounds. Eighteen subjects were equally divided between two experimental language development programs which were based on the modeling of specific language responses to be learned by the children. Both of the programs had an identical first stage of training (simple labeling or naming skills) and a different second stage of training (basic descriptive and expressive language skills) by different modeling. He administered the ITPA verbal expression subtest and the short form of the Stanford-Binet intelligence Scale prior to, and upon completion of, participation in the

experimental language programs in addition to the language performance measure designed for use in this study.

Psycholinguists have attempted to restrict their use of the term *imitation* to the process in which there is actually a functional link between the behavior of one individual (model) and the subsequent similar behavior of a second individual (the observer). They have conducted observational, non-experimental studies and adopted an operational definition of imitation that seeks to lower the probability that matching verbalizations observed between two individuals are only accidentally related. Thus, imitation in these studies is the immediate and exact duplication of behavior. Ervin (1964) compared five 2-year-old children's imitated utterances with their spontaneous utterances confining the definition of imitation as an overt, immediate repetition of the model which showed no deviation from the model except perhaps a reduction in linguistic complexity. While the children in her study were asked to imitate, she felt that the real test as to whether imitation was significant as a source of progress in grammar should be based on spontaneous imitations, for children might imitate selectively. To compare the grammar of an imitative utterance with a spontaneous utterance, she investigated the grammar of a child who was one of her five subjects. On this basis, she concluded that there was no evidence to sup-

port a view that progress toward adult norms of grammar arises merely from practice in overt imitation of adult sentences.

Using data of their own child, Moerk and Moerk (1979) demonstrated contradictory but stronger evidence than Ervin suggested. The imitative utterances of Moerks' child were found to surpass quantitatively spontaneous ones on the dimensions of grammatical and semantic complexity. With few exceptions, new structures appeared first in imitative utterance and only later in spontaneous ones. Both the higher complexity and the prior appearance of new constructions in imitative utterances suggested that imitation fulfilled a progressive function in their child's language. Bloom and her colleagues (1974) defined an utterance as imitative (1) if it occurred in a natural situation (that is, without the child being asked or prompted to imitate); (2) if it repeated all or part of a preceding model utterance from someone else; (3) if it did not add to or change the model other than to reduce it by leaving something out; and (4) if no more than five utterances (from the child or others) intervened after the model. They observed six children in a natural setting periodically with a tape recorder (one of them was a video recorded in an audiovisual studio). Slobin and Welsh (1973) prepared 1000

sentences to analyze a 2-year-old child's grammar through elicited imitation for about three months. They defined elicited imitation as the child's repetition of a model sentence presented in a context calling for imitation, as opposed to the child's spontaneous imitation of adult utterances.

The cognitive developmental approach explains imitation in the context of total cognitive development. The description of development in imitation during infancy given by Piaget has constituted the main reference point for most of the recent research on infant imitation. Since Piaget related changes in imitation to reorganizations in sensorimotor intelligence, most studies have attempted to determine the types of behaviors that infants of different ages are capable of imitating. Stine and Bohannon (1983) support this position with their naturalistic observation of a single child. They collected 651 intelligible utterances of the child. This child interacted with 21 adults during two different ages: 2; 8 (MLU=3.5g) and 3; 0 (MLU=3.73).¹⁾ Three adults were assigned at a time to interact with the child, to take contextual notes, and to operate the tape recorder. This research presented evidence of the progressive nature of imitation to aid in the language acquisition process and the social, conversa-

1) MLU is the mean length of utterance which reflects the average duration of a child's utterances.

tional role played by imitation in discourse. Kellen and Uzgiris (1981) divided their subjects into 7-, 10-, 16-, and 22- month-old age groups to see the progressive nature of imitation of children. They found that older infants imitated a greater range of behaviors with better accuracy than younger infants. Clark (1977) and Snow (1983), like Piaget, suggested the importance of deferred imitation by the child in language acquisition as well as well as of imitated sequences and sentence frames stored in memory for several hours or days before being used. Snow (1983) explained that an imitation occurs to the child when the utterance expresses a meaning s/he wants to convey. Snow used diary data of her own son to show the importance of deferred imitation in language development.

Advantages and limitations of these approaches

Most empirical investigations of young children's imitative abilities are difficult to compare because of methodological differences such as whether elicited or spontaneous imitation is being investigated, how imitation is defined and measured, who serves as the model, and where testing occurs. As examined above, different researchers have used different methods according to their theories and definitions of imitation

in child language. In general, the research can be divided into two categories according to the methods they applied to collect data: naturalistic and experimental.

Naturalistic research includes data from diaries and spontaneous utterances. Diary data may lack objectivity, though it is accompanied by tape recording, because it is written by the subject's caretaker, usually the researcher her/himself. However, in terms of encompassingness, accessibility, and knowledge of input and output phenomena, it is optimal for the purpose of detailed explanation. Snow (1983) used this method in explaining deferred imitation of her son's utterances. It might be hard to think of other methods than diary data for collection of deferred imitations. Moerk and Moerk (1979) also used their own child as their subject and argued the importance of imitation in their child's language acquisition.

Though the research in natural situations shows various aspects of language, sometimes it is not sufficient for the study of imitation. The children do not imitate all the time during observation, but they imitate selectively and nobody can anticipate the exact time when imitation will occur. The number of subjects used for this method is usually very small. Many using only one child as their subject as in Moerk and Moerk (1979), Rodd and Braine (1970), Slobin and Welsh (1973), Snow (1981, 1983), and Stine and

Bohannon (1983). Moerk (1977) had two children as his subjects. Ervin's subjects (1964) were five children, Bloom and her colleagues (1974) used six children, and Ramer (1976) used seven children for their studies. The subjects were very small in number and were not randomly assigned, so, it is hard to say much about the internal validity of these studies, and we should be cautious in generalizing the findings.

Experimental research on imitation has been more structured than naturalistic study in order to ensure the role of imitation in language development. As mentioned above, the behavioristic approach usually used this method to show the importance of imitation in language learning (Greenson, 1981). Berry (1976b) conducted an experiment with 108 severely mentally handicapped children. He analyzed the elicited imitations to identify the performance characteristics of their language. The children were tested individually over a period of two and a half months in the school which they attended. All imitations were tape recorded and transcribed at a later date into English orthography. The imitation test consisted of four sets of language material: (1) words, (2) simple sentences, (3) complex sentences and (4) words strings and the subjects were required to imitate. The responses of the children were scored in two categorization systems. according to their responding levels, taking into account the fol-

lowing responses: (1) correct, (2) addition of function words, (3) addition of bound-morphemes, (4) order changes, (5) deletions and (6) parroting responses. Chronological age, and Vocabulary Age (measured by the English Picture Vocabulary Test) were taken in addition to imitation data. This study indicates that such an assessment technique is useful in identifying language ability levels in this population and can complement other more traditional epidemiological data. The results also have implications for the design of language intervention programmes in particular areas of deficiency.

To lessen the weakness of both naturalistic and experimental research, some investigators combine the two approaches and make their study semi-experimental. Rodgon and Kurdek (1975), for example, did an experiment with twenty-four subjects in the subjects' homes and provided modeling by the children's mothers. They used a tape recorder for accuracy in transcription. They raised some basic questions concerning the nature of both vocal and gestural imitation; (a) what are the age and sex differences in the quantity and quality of 8-, 14-, and 20-month-old's vocal and gestural imitation; (b) do children at each age level differ in the types of behaviors they imitate; (c) what is the relationship between vocal and gestural imitation; and (d) how are vocal and gestural imitation related to linguistic maturity? Their

findings were that various types of vocal and gestural imitation were not significantly correlated with each other and vocal imitation was positively correlated with estimated vocabulary for both 14- and 20-month-olds. They suggested that imitation is not a unitary ability and that vocal imitation may be one strategy useful in vocabulary building. As this study showed, the use of a child's mother as a model to elicit more response from the child is frequent, but there is no evidence that a mother actually elicits more response. It is not easy to collect experimental data from young children. Especially, the transcription of utterances is a major problem in the study of child language. The difficulty of transcribing child utterances limits the number of subjects in experiments. However, this semi-experimental design is a prevailing one for early child language (Killen & Uzgiris, 1981; Masur & Ritz, 1984).

Discussion

Language is not an easy subject to explain. Imitation in child language development cannot be explained by some experiments. If we follow one or two theories to study such a complicated issue like language, we might miss many important facts.

Investigations of child language have had an almost cyclic movement in their approach to gathering data (Fox, 1983). The studies on

imitation of child language development have been performed in this context. Initially researchers often kept diaries of their own children or had some diary data which were written by other children's mothers. In the 1960s, theories that treat language as a system of rules, and attribute internal structure to children's sentences, rejected imitation as a mechanism and confined the definition of imitation in a strict sense. Their concern was with the structure of language but not semantics, and they collected children's utterance to see the difference of grammar between imitated language and spontaneous speech.

Later, large volumes of data could be collected as techniques for organizing the information became more sophisticated and the advent of recording devices appeared. The recording equipment maintained the momentum of volume, but finally questions appeared which required more refined, subjective divisions to be made about language. Small numbers of children were then studied in greater detail. And now, once again, the diary-videotape style of collection is reoccurring as investigators take interest in not just language alone, but in the metalinguistic system and context in which the language appears (Killen & Uzgiris, 1981; Masur & Ritz, 1983).

As discussed above, the definition of imitation and its role in language development have changed according to the various

theories, and different theories have used different research methods for their purposes. Even in the same theoretical frame, the researchers have shown contradictory findings (Ervin, 1964; Moerk & Moerk, 1979; Tager-Flusberg & Calkins, 1990). Although there has always been considerable disagreement about the importance of imitation for language development, it does not mean that the role of imitation in language development is changing. Rather, it means that different theories and different methods have looked at different aspects of language; e. g., syntax versus semantics, or grammar versus meta-linguistic abilities. Hence, we now need to intergrate the different findings to explain the role of imitation for language development in different age groups and in different subgroups of language disordered children. When individual differences in language acquisition process are considered and a child's imitation is examined within the context of his/her whole development, we can have better understanding of the role of imitation in language development.

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