

The impact of imitation on language acquisition: A critical review

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ABSTRACT

This critical review investigates the impact of imitation on the language learning process in the developmental stages of infants and young children. From a general perspective, the review aims to figure out how children learn a new language at very early ages and whether the process of imitation brings negative or positive influences on children's language acquisition. To do this, the investigation of four studies was reviewed. The research supportively gives out how children imitate their caregivers (especially their parents) in terms of achieving a language and the consequence of the imitation process psychologically affects the children.

1. Introduction

Imitation is considered a critical step in terms of learning a language and enhancing socialization skills during the developmental stages of infants and young children (Hanika & Boyer, 2019). The investigation of imitation has attracted many linguistic theorists and psychologists with extensive perspectives. Among these, there are more considerations on the relationship between imitation and language acquisition. Ervin (1964) strongly stated that there was no contribution to language development from imitation. On the contrary, according to Skinner (1957) - a father of Behaviorism theory, children learned a language initially through the imitation of their caregivers (normally their parents). Which, they listened to the terms that parents usually talked to one another and then started to mimic the simplest sounds. Specifically, imitation was also defined as the utterances of children which maintained the order of adult utterances and children seemed to produce their speaking in the same tone that they heard and then started repeating one of the last three words which were produced by the adults (Vila & Elgstrom, 1986). From a different viewpoint, the process of imitation played a crucial role to develop motor skills and establish the first vocabulary acquisition in children at young ages as since given birth (Rogdon & Kurdek, 1977), children started to listen to the sounds around them and by which their neurons actively received signal for acquisition.

2. Objectives

The principal objective of this research paper is to critically consider current evidence regarding the impact of imitation on the process of language acquisition and figure out the best way for caregivers to support their children to acquire languages effectively through the imitation process.

3. Methods

The main term for the research is "imitation and language acquisition" which was used to search for relevant articles on ScienceDirect, ERIC, APA PsycNet, and PubMed. The search from the four sources yielded 39 results. After considering the age of the toddlers and the degree of

relevance in most of the journals, there are four chosen multiple-baseline studies which relate to the influence and relationship between imitation and language acquisition.

The author summarizes and synthesizes the background information as well as compares the significant findings of each article to generate an overview regarding the topics. Afterward, there will be some critical reviews with suggestions and recommendations for future research.

4. Results

All of the selected journals for this critical review are multiple-baseline studies that surely face a general issue which is the small sample size may not effectively reflect the population as a whole. In other words, within the boundary of the topic and the sample space chosen, the researchers may find it hard to generalize their experiment to a larger population. On the contrary, although there were not many children taking part in the research, the researcher tried to extend the baseline period with quite a long time for observation which enhanced the validity of the findings at the end of the research.

Despite different methodologies and sample sizes, all four studies concentrated on groups of children at very early ages as children approach social interactions even in the first month of life with diverse tendencies to imitate or not imitate the sound of the actions of the caregivers (Meltzoff & Moore, 1985). With all the gathered data, all four studies provide necessary information about the role of imitation in language acquisition and figure out what factors affect the imitation process.

Pelaez, Borroto, and Carrow (2018) conducted a study named *Infant Vocalization and Imitation as a Result of Adult Contingent Imitation* in which they implemented the observation of three infants. One of them is three months old, one is eight months old and the oldest one is fourteen months of age. The conversations between children and parents were recorded in a quiet room in the house of participants and then each record was listened to by the researchers for data analysis. The design of the study was divided into different stages A-B-C-B-C-B-C in which baseline A was considered an initial stage to gather information about the children's background before any controlled factors. Baselines B and C were intervention stages in which data were gathered; specifically, B represented contingent vocal imitation whereas C stated non-contingent vocal stimuli intervention.

After showing graphs for the frequency of imitation under the adult contingent and the percentage of correct infant vocal imitation, it was noted that the contingent vocal created more frequency in infants' imitation than the non-contingent one. Moreover, the older children seemed to have more vocal imitations than the younger ones. However, the limitation of the sample size in this research and the fact that all of three participants were female have affected the validity of the findings.

Vila and Elgstrom (1986) researched the relationship between imitation on language acquisition. By doing this, they started to investigate the reaction and interaction of three infants in conversational situations with their caregivers or parents at home from they were born until they were 02 years old. The research included five figures in total representing the distribution of the total number of imitations and the relationship of that with the total lexical procedures.

The findings of the research emphasized the importance of adults' utterances towards the process of imitation which was also the critical procedure to develop the first language acquisition of young children. Additionally, it was stated that children rarely express communicative intentions when they imitate adults' utterances because the three infants showed a low number of imitations

related to the global language utilized. Moreover, imitation was a beneficial mechanism to develop vocabulary in the first language as it was demonstrated that the participant who had the most frequency of imitation was also the one who had the most active vocabulary.

In 1974, Bloom, Hood, and Lightbown (1974) published a study named *Imitation in Language development: If, When, and Why* with six participants from the age of 18 months to 25 months old. The six children were from different cultural and familial backgrounds which led to different ways of using a language. All of the conversations were recorded and then transcribed for data analysis including the information of frequency, lengths, number of words that were imitated, and number of different syntactic utterances.

The author stated that children seemed to mimic adults' utterances but they repeated neither the linguistic signals nor the complete structures. After hearing the utterances from people around, all participants created relatively new words or even new structures. In other words, the process could be explained as encoding the information that the children heard from the caregivers and transferring whatever is in their memory. In addition to that, this investigation emphasized the importance of imitation in language development in which the children were passively engaged in conversational environments and they had to process linguistic and nonlinguistic input and produced linguistic output.

De Giacomo et al. (2018) researched socioeconomic status and imitation of language acquisition among preschool children in a public nursery school and a private nursery school. This research provided strong evidence with 60 children from the age of 03 to the age of 05 and some 11-month-old children also attended the research. By comparing the socioeconomic status of the samples, the researchers found the differences in imitation between them during the process of language development. To do this, descriptive statistical analysis was implemented to point out the difference in socioeconomic status, and the U test, as well as the chi-square test, was used to check whether there were any differences between the observed and expected values in verbal and nonverbal groups.

Interestingly, the socioeconomic factors do not matter in the process of imitation but the degree of the mothers and environmental factors both played a crucial part in the development of the first language. The research also figured out the association between the capacity for imitation and verbal skill in the first language used in which children who had some kind of disorder such as autism, seemed to show the absence of spontaneous imitation. Consequently, there was a reduction in the communication skills of such children. Moreover, the main finding of this study was that the failure to develop imitation skills would lead to an adverse impact on the communicative domain.

From different perspectives, the four articles contribute distinct values in terms of the effect of imitation on the language acquisition of young children. All four articles have their own ways of giving the language input to the participants and different ways to measure the language output of the imitation process, but it is clearly seen that De Giacomo et al. (2018) and Bloom et al. (1974) both extensively emphasized on the surrounding environments whereas the other two were more of the frequency of imitations. The inequality of sample sizes and the length of experimental intervention valued the findings in terms of reliability and validity although young children are not always ideal to best fit the research expectation.

5. Conclusion

The four journals included in this review all show the important role of imitation in the process of acquiring the first language in children at a young age which overshadows some early

ideas starting that imitation does not support the stages of language acquisition. It can be understood that imitation is a basic and initial step for children to learn how to talk and by which throughout time by mimicking the utterance of caregivers, especially parents, they enhance their pronunciation and vocabulary. From the four articles, many factors affect the process of imitation including the age of children, the mothers' degree, the contingent of imitation, the ungrammatical and unstructured features of the imitation, etc. These findings should, however, be interpreted noticeably:

- Three over four studies do not mention the role or the status of caregivers toward the children. The status of caregivers is especially important as it affects the way they create their utterances from what they think in their minds. Simultaneously, it also influenced the way children mimic the sounds. For example, in the case of Vila and Elgstrom's study, whether there are any differences if parents are from the North or the south of England.

- Three of the four studies have a very small sample size which may question the validity of the results. Moreover, all of the articles were implemented in a certain geographical area which leads to the fact that the findings may not consistently valuable to children in other aspects of the world.

- Besides linguistic features, the researchers should provide more psychological traits of the children as *language is an aspect of cognition, and its development is one aspect of the development of cognition* (Chomsky, 1983). Indeed, children who are from different cultural and familial backgrounds would have different cognitive capacities when they absorb adults' utterances.

It is evidently stated that there are many external factors influencing the process of language acquisition in young children. However, from a personal perspective, the author believes that internal factors do matter. The infants are born and genetically inherit the characteristics of both mother and father which is also a notable factor that forms the complex neuron systems of the infants from their preborn stages. Indeed, it is emphasized by Schwartzenberger (2020) that an infant's *nervous system development and capacity are set by genes*. By this means, the effectiveness of imitation on language acquisition depends on the structure and function of the brain or neuron system. Moreover, during fetal development, the daily diets of the mother do affect directly the construction of the baby's brain which physically affects the acquisitive process.

The four analyzed articles above chiefly focus on the imitation of infants towards parents' and caregivers' utterances, but at certain ages, young children start to imitate body language consciously and unconsciously. Taking goodbye as an example, normally when people say *bye* to their kids and wave one of their hands simultaneously it results in the children's consciousness of the image of waving hands when saying goodbye. The author does believe that the imitation of gestures is worth to be taken into consideration as some kids imitate the gestures such as waving their hands before knowing to say the word *bye*.

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