

## A RATIONALE FOR IMITATION IN LANGUAGE INTERVENTION A POINT OF VIEW

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The role of imitation in normal language acquisition and language intervention has been an issue of some controversy (Ruder and Smith, 1974; Rees, 1975). Decisions on how and when to employ imitation in language training seem to reflect theoretical views about the contributions of imitation to the normal language acquisition process (Bricker and Bricker, 1974). For example, Rees (1975) appears to regard imitation as a simplistic tool of the behaviorist view falling somewhat shy of teaching the complex set of rules comprising language. Language learning has been described as a process based entirely on comprehension (McNeill, 1970) and, in at least one current approach to language training, imitation is deliberately avoided (Winitz and Reeds, 1972). The latter is certainly an extreme exception. As Rees points out, most clinicians probably do make some use of imitation although some may feel uncomfortable doing so if they consider imitation not to be critical to language acquisition. The purpose here is to discuss a simple and practical justification for imitation in language intervention, regardless of assumptions about its role in language acquisition. The paper is organized around a distinction in language intervention: learning to imitate and learning by imitation (Parton, 1976).

Establishing imitative behavior in non-imitative children is a slightly different matter from establishing language in imitative children by the use of imitation. Imitation can be product or procedure. Early research on imitation (Baer, Peterson and Sherman, 1967) consisted of demonstrations of how motor and vocal imitative repertoires can be developed in retardates through the use of behavioral principles. A behavior was considered imitative if it temporally followed a modeled behavior and its topography was controlled by that of the model. Baer et al. have been criticized from a Piagetian viewpoint (Snell, 1975) for restricting their definition to only one developmental stage in children's imitative behavior. According to a Piagetian viewpoint (Morehead and Morehead, 1974) the nature of children's imitation changes in accordance with cognitive growth and can range from simple vocal contagion to deferred imitation involving representation. Further, from the recent pragmatic or speech act approach to early language (Bruner, 1975; Dore, 1975) a child's imitation of parental repetitions of the child's vocalizations (i.e. mutual imitation) can be inferred as an emerging pre-speech communication intention. That is, the child's imitations achieve a circular means-ends or causal function that produces adult interactions (Bates, Camaioni and Volterra, 1975; Dunst and Didoha, 1976). Establishing imitation as a basic mechanism is frequently a necessary and important early goal in intervention (Bricker, Dennison and Bricker, 1976). Recent assessment procedures (Uzgiris and Hunt, 1975) and intervention strategies (Bricker et al., 1976; Snell, 1975) emphasize a comprehensive Piagetian developmental progression in the management of imitation.

The use of imitation as a language training technique involves modeling of a correct response by the trainer, a mimicking or exact copy response by a child and some form of reinforcement for correctly imitated responses. A body of literature (Sherman, 1971; Guess and Baer, 1973a) has developed which demonstrates that imitation can be a feasible mechanism for acquisition of rule governed language behavior, contrary to other views (Ervin, 1964). Guess, Sailor, Rutherford and Baer (1968), for example, prompted a language deficient retardate to imitate plural labels for object pairs. Eventually, she produced other plural labels spontaneously. Generative effects of imitation training have

been extended to sentence usage (Lutzker and Sherman, 1974) and to very young normal children in acquiring a simple syntactic form (Whitehurst, 1972).

The process by which children abstract rules from the models they imitate and produce novel exemplars is termed "selective imitation" (Whitehurst and Vasta, 1975). Any part of the model, including complexity, order, length or aspects of structure reproduced by the child is considered imitated without all other aspects included in the child's repetition. For example, imitative prompting of plural labels results in the child attending to the stimulus subset /s/ and eventually combining it with noun labels for untrained object pairs. These spontaneous productions are "selective" imitations because the child has selected the plural label form and they are novel because new content appears in that form. "Selective Imitation" is the result of the imitation training technique. Imitative prompting was employed to direct the child's attention to the subset of the model that was the target of training. The imitation training technique simply served as the input to the child for acquiring new language behaviors.

Whitehurst and Novak (1973) point out that laboratory language training procedures such as the above are probably unlike those used by parents in the natural environment. For example, the truth value of children's early utterances is more likely to be consequted by parents than the correctness of grammatical form (Brown and Hanlon, 1970). Whitehurst and Vasta (1975) suggest that novel productions can appear in a child's speech without prior mimicking if the child has some comprehension of the rule. Bloom, Hood and Lightbown (1974) have observed that not all children imitate under natural circumstances. Moreover, those who repeated parental utterances did so in linguistic categories they already comprehended to some degree. Thus, comprehension seems to be the apparent primary requisite for language acquisition in the normal environment.

Either language training input (that is, imitation or comprehension) should generate language in **both** comprehension and production to be consistent with facts about normal language development. Children learn to **speak and** understand sentences they have never heard before (Slobin, 1968). In a strict sense, imitation training studies did not demonstrate generative or rule governed language. Subjects produced untrained exemplars but their performance in comprehension was not assessed. Learning by imitation does contain implicit comprehension (Ruder and Smith, 1974) because children must relate an abstracted regularity to referents prior to novel productions. Nonetheless, Guess and Baer (1973b) found that language deficient retardates failed to generalize rules across modalities whether comprehension or production (via imitation) was the training modality. Their subjects demonstrated rule-governed performance in the untrained modality only after reinforcement for such responses was introduced. Consequently, learning to produce grammatical regularities by imitation does not insure correct performance in comprehension of those regularities. Moreover, imitation training does not appear to be a prerequisite for comprehension learning of grammatical regularities. Further, the acquisition of grammatical regularities in the comprehension modality does not insure emergence of novel productions of grammatical responses as suggested by a comprehension based view of language development.

Several authors (Dale, 1972; Guess, Sailor and Baer, 1974; Rees, 1975) have suggested that data and assumptions about the normal acquisition process may not be appropriate for children who are failures of that process. Clearly, restricting language training to one input considered primary in normal language learning involves the risk of failing to achieve generative performance in understanding and speaking. Imitation is a necessary

component in language training to insure abstraction of rules for production. Moreover, there is no apparent reason for imitation and comprehension to be incompatible as inputs for language learning. Guess and Baer (1973b) suggest that language training be programmed in both inputs from the outset of intervention. This eclectic approach is employed by Stremel and Waryas (1974) in a language training programme encompassing a wide variety of behaviors in a developmental sequence.

In summary, imitation as a goal and as a procedure in intervention have been discussed briefly. Assessment and training of imitation as a goal should not be restricted to a definition of imitation as a procedure. Imitation as an emerging developmental behavior is a far more complex process. Finally, imitation can be an effective procedure in language intervention even though it may not be necessary for normal language acquisition.

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