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# ***The Role of Directives in Early Language Intervention***

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*The purpose of this paper is to discuss the appropriate role for directives in language intervention. Three types of directives are defined: follow-in, redirectives, and introductions. Two conceptual models for the role of directives in language development are then presented. The research supports the hypothesis that follow-in directives facilitate language development and can play a useful role in intervention. Redirectives are either negatively or nonsignificantly associated with language development and have a less useful role in language intervention. The role of introductions is less clear, and more research needs to be done. Finally, 3 issues, the possible covariation of directiveness and responsiveness, cultural differences in the use of directives, and a useful role for redirectives separate from language development, are discussed.*

The literature on early language intervention reflects conflicting beliefs about how the use of directives has an impact on language development. Some researchers use directives prominently in their intervention programs, whereas others minimize their use or argue they are disruptive to learning. The way directives are encouraged or discouraged reflects researchers' differing views on their value in language development.

The purpose of this paper is to present an argument for the use of one type of directive in language intervention. Our recommendations are based on a review of the literature on the effects of the different types of directives on language development. First, we defined three types of directives. Our intention is to make important distinctions among the three that are related directly to their effect on behavior. The various uses of directives in early language intervention are then briefly

described. Next, two conceptual models for the role of directives in facilitating or inhibiting language development are presented. A review of the empirical research for both typically developing and developmentally delayed children as it is related to the two models is provided. Finally, we discuss three issues relevant to whether directives should be encouraged or discouraged in intervention: (a) assumed negative association of adult responsiveness and directiveness to the child, (b) culturally based differences in adult uses of directives, and (c) other possible reasons for the inclusion of directives.

## **DEFINING DIRECTIVES**

In this paper, we define directives as verbal behaviors that communicate to the child the expectation that they do, say, or attend to something. This includes questions, com-

mands, suggestions, and requests for both verbal and nonverbal behavior. Different researchers have defined directives in a variety of ways. Some researchers (e.g., Mahoney & Robenalt, 1986; Tannock, 1988) but not all (e.g., Maurer & Sherrod, 1987) include questions as directives. Some researchers lump all directives together (e.g., Mahoney, 1988; Mahoney, Finger, & Powell, 1985), whereas others divide directives into categories (e.g., Akhtar, Dunham, & Dunham, 1991; Pine, 1992; Schaffer & Crook, 1979; Tannock, 1988). The categories vary somewhat from researcher to researcher. For example, Pine (1992) used two categories, *behavioral* and *attentional* to classify directives, whereas Schaffer and Crook (1979) used two other categories, *directive* and *prohibitive* to classify directives in their study. The lack of a consensus definition as to what constitutes a directive can make it difficult to compare results of different studies. It also suggests that disagreements about the appropriate uses of directives in language intervention may have more to do with how researchers define them than how specific classes of directives affect children's development.

For the purpose of this paper, we will consider three kinds of directives: those that follow the child's lead (i.e., follow-in directives), those that initiate a new topic (i.e., redirectives), and directives given to an unengaged child (i.e., introductions). Follow-in directives refer to the event, object, or person to which the child is already attending. Directives that initiate a new topic, redirectives, require the child to stop attending to the event, object, or person with which they are engaged and attend to something else. Introductions are given when the child is not engaged with any object, person, or activity.

The role of directives has been conceptualized in a variety of ways in early language intervention programs. Follow-in directives for language use are encouraged in response-

oriented language intervention (Carrow-Woolfolk, 1988; e.g., milieu language teaching, Warren & Bambara, 1989), but redirectives are discouraged (Warren, 1991). Frequent use of directives is discouraged in input-oriented language intervention (e.g., Transactional Intervention Program, Mahoney & Powell, 1988; ECO model, MacDonald, 1989; and responsive interaction, Weiss, 1981).

The empirical data on the effect of directives on language development and therefore their appropriate role in early intervention may appear to be unclear because some research has not distinguished among the various types of directives. Theoretically, follow-in directives may facilitate language development, whereas redirectives and introductions may be neutral or inhibit language development. The next section will expand on these notions.

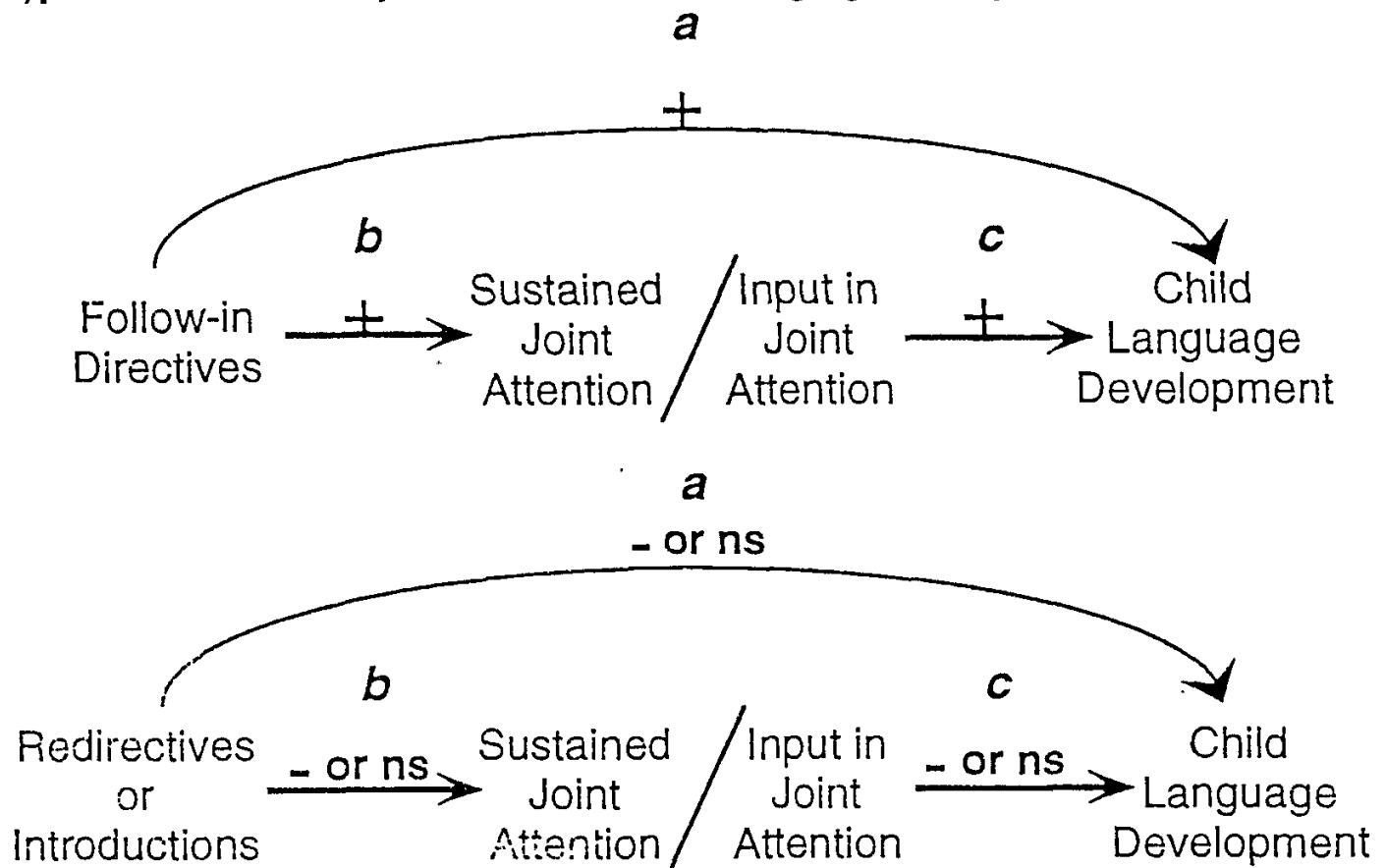
## **TWO MODELS FOR THE RELATIONSHIP BETWEEN DIRECTIVES AND LANGUAGE DEVELOPMENT**

There are at least two models of how directives might be related to language development. Implicit in each of these is the notion that follow-in directives have a different impact on child language than redirectives or introductions. These models are not mutually exclusive and may operate simultaneously. Figure 1 displays the proposed relations between directives, adult language input in joint attention episodes, and later child language development.

The first model posits that follow-in directives may directly facilitate child vocabulary development. Directives may make the connection between words, objects, and events salient because they direct action on the referents (Barnes, Gutfreund, Satterly, & Wells, 1983). Follow-in directives are by definition about objects, activities, or people to which

FIGURE 1.

Hypothesized relationship of directives to child language development.



$\oplus$  = positive relation;  $-$  = negative relation; **ns** = nonsignificant relation

*a* = relationship between directives and child language development

*b* = relationship between directives and joint attention

*c* = relationship between input during joint attention and child language development

the child is already attending, thereby making the task of finding the referent of the adult's speech simpler than if the adult's utterance were referring to another topic (Akhtar, Dunham, & Dunham, 1991). In contrast, redirectives and introductions may be less facilitative of child vocabulary, because the child is not attending to the referent of the adult utterance (Tomasello & Farrar, 1986).

In the second model, follow-in directives may indirectly facilitate child language development. The relationship between follow-in directives and language development is characterized as indirect because it is me-

diated by the amount of exposure to linguistic input children experience in joint attention. In this model, children are thought to engage in sustained joint attention more frequently and for longer periods when adults use follow-in directives to direct the child's action with child-selected objects than when adults do not use such scaffolding strategies (Landry & Chapiesky, 1989). Children who frequently engage in sustained joint attention may attend to many types of adult utterances that facilitate language development, not just directives, more often than do children who engage in joint attention less frequently. This

last assumption is based on the notion that many types of adult utterances may be more likely to facilitate various aspects of language development within joint attention episodes than outside such episodes (Tomasello & Farrar, 1986). In this model, follow-in directives are related to later child language development primarily because they help to maintain sustained joint attention. In contrast, redirectives and introductions are thought to be negatively or not related to sustained joint attention (and thus language development), because the child is required to follow the adult's lead to establish joint attention with the adult. Doing so is thought to tax the child's cognitive abilities, because shifting attention on request is a more difficult task than maintaining the focus of attention (Landry & Chapiesky, 1989; Rocissano & Yatchmink, 1983).

No studies have been done that test all three relationships described in the two models above. We will consider the models in terms of these three component relationships and examine the empirical support for each.

### ***RELATIONSHIP BETWEEN DIRECTIVES AND CHILD LANGUAGE***

The first relationship, which is the one represented as direct in Model 1 and as indirect in Model 2 is the relationship between directives and child language. Both models propose a positive relationship between follow-in directives and child language and a negative or nonsignificant relationship between redirectives as well as introduction directives and child language.

#### ***Typically Developing Children***

In their longitudinal study of typically developing 2-year-olds, Barnes, Gutfreund, Satterly, and Wells (1983) report that mothers' use of directives was positively correlated with later child progress in mean length of utterance, mean length of the longest utterance,

semantic complexity, and syntactic complexity. However, they do not clearly define what they categorized as directives in relation to the child's focus of attention. They coded instructions to the child either to perform an action or to stop an action as directive.

Yoder and Kaiser (1989) conducted a longitudinal correlational study with typically developing children in Brown's (1973) early Stage I and examined the relationships between initial maternal style and later child development. They report that maternal directives were negatively related to mean length of utterance gains. However, they defined directives as requests for nonverbal behavior. From their definition, it is impossible to know what proportion of these directives fit our definitions of follow-in directives, redirectives, or introductions.

In a concurrent correlational study of typically developing 15- to 21-month olds, Tomasello and Farrar (1986) report that within joint attention episodes one type of redirective, redirecting the child's attention, was negatively associated with vocabulary development. They did not report follow-in directives or introductions as separate categories. Therefore, the association of these types of directives with vocabulary development cannot be inferred from the data.

Similarly, for typically developing 13-month-olds, Akhtar et al. (1991) report one class of redirectives, attention devices, was negatively correlated with later measures of nouns and vocabulary. Follow-in directives were found to be positively associated with gains in vocabulary development. Introductions were not coded or specifically measured, so we cannot infer the relationship between introductions and later vocabulary development from this study.

In a longitudinal correlational study, Harris (1994) examined the relation between maternal directives inside and outside joint attention episodes on the expressive and receptive

language development of typically developing children. At the time of initial testing, the typically developing children had a mean chronological age (CA) of 14 months and a mean mental age (MA) of 17.18 months. For the typically developing children, Harris reported significant negative correlations between maternal use of both questions and redirectives outside joint attention episodes and receptive language gains. In contrast, both receptive and expressive language gains were positively correlated with use of commands (follow-in directives) inside but not outside joint attention episodes.

In the five studies above, directives were reported to be both positively (Barnes et al., 1983) and negatively (Yoder & Kaiser, 1989) correlated with some aspects of later language development. The conflict in results is probably due to a definition of directives in the studies above that includes follow-in, redirectives, and introductions. Redirectives have been found to be negatively associated with some aspects of language development (Akhtar et al., 1991; Harris, 1994; Tomasello & Farrar, 1986). Follow-in directives were positively associated with later language outcomes (Akhtar et al., 1991; Harris, 1994).

### ***Children With Down Syndrome***

Mahoney and Powell (1988) and Mahoney (1988) conducted correlational studies with young children with Down syndrome and other developmental disabilities and their mothers. The age of the children in the beginning of the Mahoney and Powell study ranged from 2 to 32 months. The children in the Mahoney study were 1-, 2-, and 3-year-olds whose mean MAs in months were 7.3, 15.1, and 19.3 respectively. The results of these concurrent correlational studies showed that children who were least communicative had mothers who did not respond to their child's communication and instead directed the child's attention to the mother's topic of

interest (i.e., used redirectives). These results suggest that redirectives are negatively associated with communicative development, but no conclusions can be drawn about the association between follow-in directives and communicative development, because follow-in directives were not measured.

In a concurrent-correlation study, Crawley and Spiker (1983) found a positive correlation between high stimulation value and higher Bayley Mental Development Index (MDI) scores for 2-year-old children with Down syndrome. Although MDI and language levels are not synonymous, language skills are a part of the MDI. The children in this study ranged in MA from 14 to 21 months. At 14 months, 40% of the items on the MDI are language related and, by 21 months, 55% of the items are a test of either expressive or receptive language. The high-stimulation cluster included sensitive, directive, and elaborative behavior on the part of the mother. Directiveness by itself was not related to Bayley MDI, nor was sensitivity or elaborativeness. The authors conclude that a combination of the three behaviors provide an optimal, stimulating environment for children with Down syndrome.

In a longitudinal correlational study, Harris (1994) examined the relationship between maternal directives inside and outside joint attention episodes and both receptive and expressive language. Two significant relationships were found between maternal directives and child language for children with Down syndrome (mean CA 36.07, mean MA 24.29): Receptive language was positively correlated with questions inside joint attention episodes, and expressive language was positively correlated with yes/no questions inside joint attention episodes. No significant correlations were found between directives used outside joint attention and language gains.

The results of these four studies indicate

that directiveness when coupled with nonresponsiveness is negatively correlated with child communication skills, whereas directiveness when paired with sensitivity and elaborativeness is associated with higher development. Mahoney's definition of directives, those that directed the child away from his or her own topic to that of the mother fits our definition of redirective. In the Crawley and Spiker (1983) study the two types of directives are grouped together. It is impossible to tell which or what proportion of each kind of directives were included in the stimulation value cluster. However, Harris did make the important distinction between directives and redirectives and found correlations that support the model.

### ***RELATIONSHIP BETWEEN DIRECTIVES AND MAINTENANCE OF JOINT ATTENTION***

Model 2 suggests that follow-in directives are important for language development because they maintain joint attention episodes. In contrast, redirectives and introductions may inhibit or have no effect on children's sustained joint attention. Three studies have examined the relationship between different kinds of directives and joint attention.

Researchers have examined the effects of follow-in versus change of topic questions (Yoder & Davies, 1990; Yoder, Davies, Bishop, & Munson, 1994). The first study (Yoder & Davis, 1990) was a sequential analysis and comparison of follow-in versus topic-initiating questions on the responses given by preschoolers with developmental delays who were in Brown's Stages I and II. Questions, a type of directive, that continued the child's topic were followed by a single or multiword utterance significantly more often than questions that changed topic. Continuing the topic and responding are evidence of joint attention.

Yoder et al. (1994) conducted an experi-

ment to see if topic-continuing questions elicited more verbal responses from children than topic-continuing comments. The mean CA for the group was 58.6, and the mean MA was 31.7. It was hypothesized that this would be true only for the children with lower mean lengths of utterance and that children in the simple and complex sentence stage would not show this pattern. The results indicate that topic-continuing questions (a type of follow-in directive) elicited more verbal response from both groups of children than topic-continuing comments, thus prolonging joint attention episodes.

Only one study has been done to examine the relationship of all three kinds of directives on joint attention. Landry and Chapieski (1989) conducted a sequential analysis study with 12-month-old children with Down syndrome (mean MA 10.50 months) and maturationally matched preterm infants (mean MA 11.25 months) in interactions with their mothers. They report that, for both groups of children, mothers' attempts to maintain the child's attention to the toy with which they were engaged were more likely to be followed by toy manipulation than either introducing a new toy to an unengaged child or trying to redirect the attention of the child. Thus, directives within joint attention episodes encourage higher rates of engagement than redirectives or introducing a topic to an unengaged child.

The results of these three studies indicate that follow-in directives are more effective in maintaining episodes of joint attention than are redirectives, comments, or introductions.

### ***RELATION BETWEEN INPUT IN JOINT ATTENTION EPISODES AND CHILD LANGUAGE***

Our theory suggests a positive relationship between input in joint attention episodes and child language. During joint attention episodes both adult and child are focused on the

same object or event. Many researchers suggest that it is easier for the child to analyze and understand adult utterances occurring in joint attention episodes than those outside joint attention episodes (e.g., Akhtar et al., 1991; Rocissano & Yatchmink, 1983).

### ***Typically Developing Children***

Tomasello and Farrar (1986) conducted a longitudinal correlational study with typically developing children who were between 12 and 18 months at recruitment. They examined the differences in both child and mother language inside and outside joint attention episodes. Inside joint attention episodes, they found a significant predictive relationship between maternal use of object referents that referred to the child's focus of interest and later vocabulary development. They also report a significant negative relation between the use of object references that redirected the child's attention and vocabulary development. Outside joint attention episodes, maternal speech was not correlated with child language.

In a follow-up experimental study of children from 14 to 23 months, Tomasello & Farrar (1986) taught novel object labels by using the object name either when the child was physically manipulating it or when the child was not engaged with any object. They found that the follow-in strategy resulted in significantly greater label learning when measured by comprehension.

### ***Children With Developmental Delays***

Yoder, Kaiser, Alpert, and Fischer (1993) conducted a single-subject experiment to teach three developmentally delayed preschoolers (mean CA 43 months, mean MA 23 months) new vocabulary under two conditions that differed on when the teaching episode occurred relative to the child's focus of attention. They report that all three children mastered more new vocabulary when the teaching

followed the child's lead than when the adult recruited the child's attention to a different object and then taught. The results of these three studies indicate that children were able to learn more when the teaching took place in episodes of joint attention than outside joint attention.

In summary, both models are supported by empirical data for typically developing children and children with developmental delays. For both types of children, follow-in directives are positively associated with some aspects of language development, whereas redirectives and introductions are either negatively or nonsignificantly associated with some aspects of language development. However, there are other issues relevant to whether directives should be encouraged or discouraged in intervention. The next section addresses three of these.

## ***SOME RELATED ISSUES***

Can parents be both responsive and directive, or does directiveness preclude responsiveness? Are there cultural differences in the use of directives, and if so, what implications does this have? Is there a role for redirectives in intervention programs for reasons other than the effect of redirectives on language development? These three issues are discussed below.

### ***Responsiveness Versus Directiveness***

One reason directives are not included in some programs may be a concern that their use reflects a lack of adult responsiveness. This concern is reinforced in a study by Mahoney and Robenalt (1986) comparing mothers' speech to typically developing children to mothers' speech to children with Down syndrome. Two groups of children with Down syndrome (mean CA 24 and 36 months, mean MA 15.5 and 19.4 respectively) were paired with developmentally matched typically de-



veloping children. They concluded that a non-responsive/directive style did not facilitate language development. Mahoney and Robenalt's definition of directives were maternal statements that directed the child's attention, which fits our definition of redirectives. However, because of the pairing of redirectiveness and nonresponsiveness it is difficult to know if the negative effects were due to the redirectiveness of the mother or her unresponsiveness or both. This distinction is important, because understanding which parent behaviors are associated with less favorable developmental outcomes may influence the design of interventions.

In two studies designed to test the relationship between directiveness and responsiveness, both Crawley and Spiker (1983) and Pine (1992) report no relationship between the two constructs. Crawley and Spiker examined the interactions between mothers and their children with Down syndrome (mean CA 24.2 months, mean MA 15.8 months). Pine's subjects were typically developing infants who ranged in age from 11 to 15 months. They found that mothers could be directive and responsive as well as nondirective and nonresponsive. Crawley and Spiker suggest that a directive, responsive, and elaborative environment may be optimal for the development of young children with Down syndrome. Landry, Garner, Pirie, and Swank (1994) also report that mothers' directiveness with their preschoolers with Down syndrome did not interfere with their responsiveness to the children's behavior.

### ***Cultural Differences***

There are also cultural differences in the use of directives with young children. Many language intervention programs implicitly reflect white middle-class American assumptions that children should be encouraged to talk, that children should initiate and direct the conversation, and that adults should

change their conversational style to fit that of the child (vanKleeck, 1994). These are not universally held beliefs. In some cultures children who talk frequently are viewed as less bright (Crago, 1990), impolite (Cheng, 1989), or self-centered and undisciplined (Freedman, 1979). The use of directives is also affected by cultural beliefs. In some cultures children are not supposed to control the topic of conversation. The role of the adult is to issue directives and the role of the child is to follow them (Crago, 1990; Ward, 1971). In short, one reason for individual differences in the use of directives may be cultural differences.

An important question to ask is whether or not follow-in directives have the same effect on development in all cultures. Studies need to be conducted to examine the relationship between directives and development in cultures that encourage either interactive or observational styles of learning. It may be that directives have a different effect on development in different cultures. Rogoff (1993) suggests that children in apprentice cultures learn to be good observational learners while children in child-centered cultures may not. If so, then the value and effect of direct teaching may differ across cultures.

### ***The Role of Redirectives***

Although the relationship between redirectives and language development for typically developing children and children with developmental delays is either negative or nonsignificant, there may be other reasons to use redirectives with children. One reason is to facilitate socially appropriate behavior, particularly in group settings. For children to function successfully in many settings, particularly classrooms, they must learn to follow directions and shift their attention when adults request them to. Children need exposure to redirectives to learn how to respond appropriately.

## CONCLUSIONS

The literature contains varying opinions as to the appropriate role of directives in facilitating early language development. This is accentuated by confusion over the relationship between responsiveness and directiveness. A critical feature of directives is whether they are follow-in, redirectives, or introductions. For typically developing children and children with developmental delays, where clear distinctions among the three categories are made, the empirical evidence is clear. Follow-in directives are positively associated with development, and redirectives and introductions are either negatively or nonsignificantly associated with some aspects of language development.

The research critiqued in this paper has examined the relationship between directives and language development for children who are typically developing and those with developmental delays, particularly Down syndrome. The patterns of results described may be accurate for only those groups of children. It may be that for children with other etiologies other patterns exist. For example, children with autism who engage in stereotypic behaviors may need redirectives and introductions to facilitate their interactions with both objects and adults. For these children the exclusive use of follow-in directives may serve to encourage more repetitive, stereotypic behavior. More research needs to be done with other populations of children to examine the effects of follow-in, redirectives, and introductions on language development.

The timing of follow-in directives relative to the child's behavior influences their effect. Asking the child to imitate a linguistic model for the message being communicated may be a particularly good strategy for teaching language (e.g., asking the child to repeat the name of the object, event, or desired person in response to a child request before comply-

ing). Additionally, using a follow-in directive for nonverbal action may be an effective strategy for sustaining joint attention when the child is becoming bored or frustrated.

The effect of follow-in directives, redirectives, and introductions on language development may partly depend on the aspect of language being learned and the developmental level of the child. Certain aspects of grammar may be more efficiently learned through direct-instruction methods that use directives and introductions than through methods that employ mainly follow-in directives (i.e., milieu teaching; Yoder, Kaiser, & Alpert, 1991). It may be that developmentally older children can deploy their attention on command and still have enough cognitive resources to make the cross-exemplar comparisons necessary for grammatical rule induction, but that the developmentally young child typically cannot. Frequent, systematic examples may help developmentally older children notice the similarities, making it easier for them to understand the rule being taught (Connell, 1987).

For children who are primarily learning vocabulary and early semantic relations, methods that use follow-in directives (i.e., milieu teaching) appear to be superior to methods that discourage use of all directives (i.e., responsive interaction; Yoder et al., in press) or use redirectives and directives after unengagement (i.e., didactic teaching; Yoder et al., 1991). The reason is probably that children who are learning vocabulary and early semantic relations are developmentally younger than those learning grammar. It may be that children who are developmentally younger (e.g., under 2 years developmentally) rely more on adults' use of follow-in directives to remain engaged in the task and to learn the vocabulary contained in the adult input than do developmentally older children (Yoder et al., 1991).

In summary, the confusion over the appro-

appropriate role of directives in early language intervention can be clarified by differentiating among the kinds of directives being examined. Although redirectives do not have a facilitative role in the early language development of typically developing and developmentally delayed children, they may for children with other types of disabilities. Redirectives may be particularly useful for social skills development. The role of introductions is less clear but may serve to reengage a child who is not interacting. Follow-in directives for both language use and nonverbal behavior have a facilitating role in language development and an appropriate place in intervention.

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