

The 'point' of language intervention lessons

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Abstract

There has been a small accumulation of studies of clinician–child discourse. Early work has demonstrated the value of careful description of real lessons as they are carried out by clinicians working with speech and language-disordered children. In this descriptive report the role of non-verbal communication is emphasized, particularly with reference to pointing as a clinical teaching device. Transcriptions of three clinician-led lessons were analysed. The results verified the systematic nature of pointing as an augmentation to remedial control. The need for full descriptions of nonverbal communication as it facilitates lesson applications is discussed.

In the remedial setting, interactions between clinicians and children are centred around the child's acquisition of linguistic skills. Although the selection of intervention techniques may vary (Leonard, 1981), the goal of clinical teaching remains constant, that of aiding the child's more accurate production of various language structures.

The analysis of the discourse characteristics of clinicians and children has been one recent area of study (Bobkoff, 1982; Prutting, Bagshaw, Goldstein, Juskowitz, and Umen, 1978; Ripich, Hambrecht, Panagos, and Prelock, 1984). The goal of these studies is to present an unbiased description of clinical lessons. Audio and videotapes are transcribed and analysed for verbal and nonverbal behaviours carrying out the clinician's goals. Clinicians use a greater number of utterances than language-disordered children, with utterances typically serving a directive function.

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Children use their turns for responses. Although these studies are limited to clinicians, they relate closely to the issues faced by teachers in other instructional situations.

Bobkoff's study examined selected aspects of both verbal and non-verbal components during the language lessons. Nonverbal components serving primarily a directive function, such as pointing, or leaning forward, were used in the analysis. Two types of utterances which characterized the clinician's portion of the interaction were examined for nonverbal accompaniments. A REQUEST FOR PERFORMANCE requested the child to produce a response related to the materials; an EVALUATION provided information as to the quality of the response. The two utterance functions appeared important for structuring sequential aspects of lessons. The requests initiated segments of interaction, while the evaluations completed the segments.

For example:

Clinician: Now can you tell me what they are doing?

(Request for performance)

Child: They are feeding chicks.

Clinician: They are feeding chicks.

Good.

(Evaluation)

Coordination of verbal and nonverbal behaviours within clinical messages may serve to increase the information available to children regarding the specific goals of intervention. Language remedial goals, although often syntactic in nature, are incorporated into patterns of discourse reflecting the pragmatic aspects of clinical interaction. Similar to the conversations of mothers and children, clinical discourse probably delimits information for language learning. Mothers initiate and maintain conversations by directing attention to objects (Bridges, 1979; Collis, 1977; Messer, 1978; Murphy and Messer, 1977). Murphy and Messer (1977), for example, identified several directing behaviours co-occurring with mothers' talk to children. Messer (1978) also noted that the speech of mothers was closely integrated with nonverbal activities during joint play with objects, and concluded 'that nonverbal aspects are not merely used to supplement speech but are finely integrated with it' (p. 786).

The study of nonverbal displays during intervention has been extremely limited to date (e.g. Kaplan and Dreyer, 1974). In this paper, pointing was examined for its occurrence in conjunction with performance requests. Not only was the clinical function of pointing of interest,

but also how, as a nonverbal component, it was coordinated with verbal components.

Discourse sample

Three speech-language pathologists were selected from the original six subjects previously investigated (Bobkoff, 1982). The clinicians were employed in the US public school setting and each held a master's degree. The exact purposes of the study were unknown to the subjects at the time of data collection.

The videotapes were of intervention lessons with language-disordered children, ranging in age from 5;9 to 7;8. They had been enrolled in clinical programmes from 7 to 25 months.

Several factors were considered in the selection of the three dyads to be reexamined. The quality of recordings, variations of materials used, and variations of lesson goals influenced the decision. Variable clinical components were desired so that different aspects of pointing would be available in the data. Findings from previous analyses (Bobkoff, 1982) provided the initial perspective for the study of pointing. The number of pointing behaviours identified during requests are in Table 1.

Table 1 Frequency of pointing behaviours during requests for performance utterances

	Requests for performance	Points
Ann	34	30
Betty	70	28
Carol	20	23

The goal of the analysis was the identification of the aspect of each utterance which was coordinated with the clinician's pointing. Words uttered when the finger(s) came in contact with the task pictures were isolated. A point was a movement of one or more fingers towards the materials. Most requests contained a single point, although some utterances were accompanied by more than one (see Table 2).

Transcriptions of discourse segments containing pointing behaviours were prepared. Samples reflected the topical changes of language lessons (similar to that identified in classrooms by Mehan (1979)). In clinical discourse, each picture used to elicit target structures appeared to supply

Table 2 Frequency of requests for performance containing singular or multiple pointing behaviours

	Requests containing points	Single points	Multiple points
Ann	18	14	4
Betty	24	20	4
Carol	12	6	6

individual topics for lesson activities. As each was shown, the information was requested on that topic, and then changes in the content of questions occurred with each succeeding picture. An example is noted in the following exchange in which the clinician presents a picture of a boy drawing:

- Clinician: What is this boy doing?
 Child: Making the picture.
 Clinician: Right.
 Can you tell me the whole thing?
 Child: The boy is making the picture.
 Clinician: OK.
 What do you think he's drawing?
 Can you tell?
 Child: House.
 Clinician: Can you tell me that in a whole sentence?
 Child: The boy is making the house.
 Clinician: All right.
 Uh huh.

Such segments of the videotaped lessons were examined for pointing. Notations in the transcripts were made to further illuminate functional characteristics of pointing.

Findings

Results of the pointing analysis are presented descriptively for the three subject pairs. The variations of discourse form and lesson goals revealed differences in pointing across clinicians, yet an underlying coordination of verbal and nonverbal behaviours was apparent for each. Descriptions of

the three interactions allowed for an understanding of the nature of the discourse with general conclusions being drawn as to the functions of pointing during clinical exchanges.

Ann

The language goal of the lesson was the child's production of a pre-selected linguistic form. The target was a complete sentence containing a noun phrase, a plural auxiliary, and a verb in the present progressive form, e.g. *They are laughing*. The materials depicted an activity involving two or more individuals. One picture at a time was shown to the child, then moved when a response was completed. Typically, the clinician required one response per picture, although at times multiple request-response sequences were noted. A small number of these requests were not intended to elicit the lesson target, but were focused on content information from the pictured activity. A total of 34 Requests for Performance were presented to the child, of which 18 were accompanied by pointing displays.

The most frequent form with which the clinician requested the child to perform the linguistic task was with a *wh*-question, such as 'What are they doing?' This utterance type was used throughout the instructional portion of the task. The pronoun *they* was consistently included in the child's response when the target structure was produced.

The clinician's pointing was most frequently noted as she produced the *wh*-word of the request. The pattern can be seen in the following exchange:

P

Clinician: And what are they doing?

Child: They are

Clinician: walking

Child: walking

Clinician: OK.

You can do the whole sentence for me.

Child: They are walking.

Clinician: Good.

They are walking.

All right.

In these instances, it appeared that the clinician attempted to emphasize the varying portion of the lesson content, that of the activities being pictured in the materials. The word in the request which referred to the

activity was most often associated with pointing.

Further analysis revealed a second pattern of pointing. Although the clinician had not been instructed to provide a reinforcement for the child's performance, a game was sandwiched in the lesson following several correct productions. When the reinforcement activity was over, a return to the instructional activity was prompted. The initiation was typically in an utterance form similar to: 'Let's do another picture'. With this request type the function of pointing shifted to a 'management' component of the discourse, i.e. a word focusing on the continuation of instructional activity. Further, this first request was often followed by a second that related to the lesson content. The following exchange demonstrates this sequence:

P

Clinician: Let's do another picture.

P

What are they doing?

Talk real nice and loud.

Child: They are petting the dog.

Clinician: OK.

They are petting the dog.

Three instructional sequences contained more than one request per picture. When this pattern occurred, the initial request, as described, included a point along with the *wh*-word in the question form. For the second request, pointing related to the new topic presented in the request. This shift appeared to provide a cue to the child as to the expected response. An example of a two-request sequence is presented in the exchange below. In this case, the second request does not elicit the target structure, but focuses on additional information in the picture. As can be seen, the clinician produced a point with the word in the second request ('big') which she expected in the child's response:

P

Clinician: Oh, what are they doing?

Child: They are cutting wood.

Clinician: Very good.

P

Is that a big piece of wood or a little piece of wood?

Child: Little.

Clinician: You think that's little?

Child: (*nods*)

Clinician: I think it's pretty big.
(laughs)

Thus, Ann appears to be giving cues to the child as to the action or activity, or in this case the most changing focus of the lesson sequences. She also provided information as to the information needed for accurate responses. On occasion, pointing was noted to refocus attention on the instructional portion of the task.

Betty

Betty selected a linguistic goal similar to Ann's. The target response was the child's production of complete sentences with a noun phrase, a singular auxiliary, and a present progressive verb, e.g. *She is swimming*. Although performance requests were typically used to elicit the target response, occasionally Betty also requested responses which did not include the target. There were 70 performance requests of which 24 contained points. Twenty contained single points while four included more than one. Many of the instructional sequences involved only one request per picture, while others included several.

When a request began a therapy sequence, the clinician tended to point as the Noun Phrase of the utterance was produced – that is, the subject of the expected response. The pattern, as seen in the following exchange, was noted throughout the lesson:

P

Clinician: What is she doing?

Child: She is making bubbles.

Clinician: Yeah.

She is blowing bubbles.

Have you ever blown bubbles?

Child: Yeah.

Clinician: It's fun.

In those instances in which a second request was made for the same picture, point tended to be used with words referring to the pictured activity. Although rare, when a third request was produced, Betty's point was again focused on the Noun Phrase of the request. The pattern of pointing in an extended sequence demonstrates changes in focus. In the following example, the clinician shows the child a picture of several children playing in leaves. She requests information about specific children involved in the activity:

P

- Clinician: What is she doing?
 Child: Putting leaves on her friend.
 Clinician: She is putting leaves on her friend.
 You tell me the whole thing.
 Child: She is putting leaves on her friend.
 Clinician: Uh hum.

P

- What is he doing?
 Child: He's in the leaves.
 Clinician: He is in the leaves.
 He is getting buried.

P

- What is he doing?
 Child: Watching.
 Clinician: Yeah.
 Whole thing.
 Child: The girl is burying.

P

- Clinician: Now tell me about this boy.
 Child: The boy is watching.
 Clinician: Uh hum.

In this interaction, both stable and variable factors were noticed. The questions used to elicit the response and the form of the expected response were the same throughout the lesson. In contrast, the person(s) pictured as well as the activity they were involved in continually changed with the pictures.

It would appear that points occurred on varying factors in the lesson content. When a multiple request sequence was used, the focus shifted, and pointing emphasized another aspect of Betty's utterance. She appeared to be providing cues to the child by initially focusing on one of the dynamic aspects of the lesson content, and, if additional requests were provided, she shifted the pointing focus to alternative information.

We also got the impression that Betty used pointing differently in other portions of the lesson. When she described a picture to the child before eliciting the target response, she pointed. During the description, pointing was associated with the content of the picture, namely the people and their activities.

Carol

The linguistic goal of Carol's lesson presented the production of singular and plural past tense auxiliary verbs. In this lesson, she held up an individual picture and described the activity in present form ('Right now he is driving'). She then turned the picture over (either placing it on the table or continuing to hold the overturned card) and asked the child to describe the activity with a past tense verb. Her request typically took the form, 'Can you remember what she was doing?'

At no time throughout the lesson did Carol make a performance request when the pictured activity was visible to her client. Therefore, when pointing occurred, it appeared to emphasize aspects of the co-occurring utterance rather than drawing attention to the picture content.

On close inspection, there were 12 instances of requests containing at least one point. In the first four, Carol turned the card over and placed it on the table, or held it up following her description of the picture. Each point was characterized by finger tapping on the card as she spoke the initial words of the utterance. This pattern is seen in the following exchange:

Clinician: Right now you see the girl and she is pointing, right?

P

Can you remember what she was doing?

Child: She was pointing.

Clinician: That's right.

She was pointing.

Right.

As the lesson progressed, pointing then occurred simultaneously with a word (or words) that was related to the linguistic training goal, singular and plural verb forms. Each was requested during one part of the instruction. During a further part, the child was confronted with requests for both forms. Cues for the correct response came from picture content, as well as from the form of the request. In the following exchange, Carol's finger is extended on the element of the utterance providing the child with cues as to the expected response:

Clinician: Here are two girls.

They are putting their books down.

That's what they are doing right now.

I'm going to turn it over.

P

- Can you remember what they were doing?
- Child: They were putting books on the desk.
- Clinician: Good.
That's what they were doing.
Good.

The pointing behaviour of this clinician may be interpreted as serving two distinct functions, each characterizing separate parts of the lesson. In the initial stage of the lesson, pointing appeared to direct attention to the structuring of the task. As the lesson progressed and the discourse pattern was established, the display of pointing shifted to a more linguistic focus. Pointing occurred as the clinician produced the words which were cues for the correct production of the linguistic target.

Other information regarding pointing was also available from the recordings. As in the other interactions, the behaviour was not associated solely with a request for performance. The clinician was also noted to point to the picture when she provided descriptive information prior to her request. That is, as she was referring to the content of the picture (in the present tense form), she pointed to the picture emphasizing the referential information required in the response.

The functions of pointing

Throughout the interactions the role of pointing was evident. The context of clinical exchanges revealed that points were coded within the structure and content of the intervention lessons. The function of pointing changed along with the discourse structure and goals. The three indentifiable functions were a *NOMINAL OR ACTION* oriented point, a *LESSON* point, and a *DISCOURSE OR MANAGEMENT* point. The points were not restricted to an attentional function in this context. Rather, they often stressed selected linguistic elements of the accompanying utterance.

The nominal point appeared to emphasize the noun portion of the clinician's utterance. Whenever the pictures showed different people engaging in activities, the point appeared to function as a cue to this varying part of the lesson. During the times that the pictures showed a change in the activities, the point was used for stressing this difference. The use of the lesson point occurred when the clinician emphasized a linguistic element in her utterance which was a cue for the expected

response from the child. Finally, the discourse point was used to draw the child's attention back to the lesson.

In contrast to the primitive attentional value pointing seems to have in the interactions with young children, the clinical lessons appear to extend this early function. Within the lesson, the need to attract attention is lessened, and pointing appears to serve as a stress marker, emphasizing specific linguistic highlights of the lesson.

The results of the present study would suggest that clinicians are supplying information to children during remediation which is beyond that prescribed by intervention procedures. The identification of patterns in the displays of pointing indicate that children are exposed to systematic cues not currently acknowledged as components of lessons or specified in plans for intervention. Although limited in scope, the data which are available from current investigation reveal a coordination of the verbal and nonverbal input presented by clinicians during language lessons.

General implications

Several authors in the area of language intervention have addressed issues related to the role which context plays in the design and success of language intervention (Craig, 1983; Leonard, 1981; Panagos and Griffith, 1981; Prutting, 1982). With the findings of this study, the present status of contextual considerations may be one step towards accounting for the many elements which are influential within the clinical context.

Identifying the natural presence of nonverbal behaviours in the intervention setting leads to a number of clinical implications. First, the increased awareness which clinicians experience when introduced to this information has been apparent. Changes in conscious participation in language lessons has resulted from our sharing these findings with working clinicians.

Secondly, thorough descriptions of the clinical process reveal characteristics hidden from typical observation. This analytic strategy may lead to descriptive taxonomies of the clinical process, valuable for work with student speech-language pathologists.

Finally, careful descriptions of clinical discourse could lead to more control over varying lesson strategies. Until an awareness of these characteristics is achieved, several of the decisions made by those who intervene remain largely intuitive. The method of descriptive analysis presented here may therefore help the clinician or teacher to match their

teaching styles to the most appropriate learning context for particular children.

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