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Authors
McKee, Rachel L
Johnson, Kristen
Marbury, Nathie

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Attention-Getting Strategies of Deaf Children at the Dinner Table

Rachel Locker McKee
Kristen Johnson
Nathie Marbury
University of California, Los Angeles

This study investigates one facet of the language socialization process of Deaf children with Deaf parents, specifically, how they learn to get attention as a speaker in order to participate in an American Sign Language (ASL) conversation. The database consists of a videotape of an hour-long dinner attended by three Deaf children (aged 3-6 years), their two Deaf mothers, and a Deaf researcher. Small segments of the interaction, transcribed from the videotape, show not only successful and unsuccessful attention-getting strategies used by one Deaf child in the group but also adult and peer responses to her novice-like efforts. This child's attempts at getting attention demonstrate that while she could perform many culturally appropriate attention-getting behaviors (e.g., tapping, hand-waving, eye-gaze), she was still in the process of developing awareness of the relative impact of the various strategies and the ability to judge pragmatic conditions appropriate to their use. The mothers' and peers' cooperation helped to facilitate the child's participation, by modelling specifically Deaf discourse strategies for communication in a multi-party setting. This study shows that such modelling enables Deaf children in a Deaf context to become autonomous partners in interaction with their parents and peers at an early age.

OVERVIEW OF THE STUDY

In this small scale study, we will investigate one facet of the language socialization process of Deaf[1] children interacting with their Deaf mothers and peers: how they learn to get attention as a speaker in order to participate in American Sign Language (ASL) conversation. Vision, rather than hearing, is the main communicative channel for Deaf people in an interactive context. Thus, Deaf mothers cannot simultaneously gaze at their children and

carry out their other tasks in life all of the time. Deaf children must therefore learn to master appropriate non-auditory attention-getting strategies in their interaction with their mothers. The situation we have chosen to analyze is that of Deaf children ages 3-6 in an everyday activity setting for conversation: the family dinner.

Schieffelin & Ochs (1986) define language socialization as "both socialization through language and socialization to use language" (p. 2). According to Schieffelin & Ochs (1986) "sociocultural information is generally encoded in the organization of conversational discourse and discourse with children is no exception" (p. 3). We will show that the children in this study are participating in and learning about multi-party discourse and how to communicate according to the sociolinguistic norms of Deaf culture. This area of inquiry is of particular interest since the majority (about ninety percent) of deaf children are born to normally hearing parents. In that situation, the lack of access to a common language and modality for communication between parents and child impedes expected language socialization processes. On the other hand, when deaf children are born to Deaf parents, native language aquisition and socialization into the parents' culture usually proceeds quite normally. We are interested in investigating the language socialization experience of this smaller group of deaf children. First, we want to better understand how attention-getting strategies specific to the norms of the Deaf community are appropriated by these deaf children in their interactions with their mothers and others at the dinner table. Second, we are interested in how their experience parallels the development of conversational competence by hearing children in hearing families.

This investigation draws on concepts of activity theory (Vygotsky, 1978; Leont'ev, 1981; Smith, 1990), particularly how humans master sign systems and then use those sign systems to organize their activity. In language socialization, the gradual acquisition of linguistic "tools" allow social activities and social interaction to be increasingly understood and mediated by the child. In this process, novices "appropriate" linguistic tools while participating in social activities with more competent members of their society. Getting attention is a necessary tool for organizing discourse. This study examines two brief examples of a Deaf child appropriating socially developed ways of using gestural and eye-gaze channels as interactional tools, focusing on strategies for getting attention and taking the floor in conversation.

Another perspective we borrow from activity theory is that activity, as opposed to action, is jointly constructed and that tools,

as we have defined them, are only effective in a cooperative social context. Because the child has to learn to coordinate joint action with adults, "the facts of language acquisition could not be as they are unless fundamental concepts about action and attention are available to children at the beginning of learning" (Foster, 1980, p. 8). We see in our data how the process of attention-getting has to be jointly achieved by children and adults, using and refining culturally appropriate tools for initiating interaction. Indeed, all the examples of participation by novices and experts in our data show how participation is collaboratively structured; that is, the adults' attending behavior can be viewed as the flip side of children's attempts at getting attention or taking the floor.

The Significance of Attention-Getting as a Social Tool

Because attention-getting and topic initiation are intertwined, some definitions of what constitutes topic initiation are relevant to this discussion. Keenan & Schieffelin (1976) point out that the first and necessary step to initiating a topic in conversation is that the speaker must secure the attention of the listener. This step involves the use of some sort of attention-getting strategy to gain or verify the attention of the listener. Hearing children use devices such as pointing (often interpreted as "look," "see") to indicate objects they want the listener to focus on. If both participants focus on the object then it can be assumed that both the listener's general attention and his attention toward the object/tool has been achieved successfully.

Foster (1980) discusses the various channels available to the child for getting attention and initiating topics, labeling them: *vocal*, *gaze*, and *movement*. The *vocal channel* refers to utterances that are part of the adult linguistic system, the child's own version of linguistic forms not recognizable as adult forms, and sounds involved in communication but unrelated to emerging linguistic systems such as cries, laughing, etc. In ASL, the vocal channel is replaced by the gestural modality, in which both non-linguistic gestures and lexical signs are produced.

The *gaze channel* is typically used by hearing children in two ways: checking for the mother's attention and gazing at the topic of interest. Beginning with the second year of age, children check to see if they have their mother's attention and will react accordingly. For example, if they discover that their mother is not attending to them, then they may choose to implement any one of several attention-getting strategies that they have learned. The second use of the gaze channel is gazing at the topic of interest until the

addressee's attention is directed at it. Both of these strategies are also evidenced in our study. However, the use of gaze as an attention-getting strategy is developed somewhat differently in the case of Deaf children, in response to their mothers' visually oriented interaction behaviors. Erting, Prezioso, & O'Grady-Hynes (1990) observe that Deaf mothers display strategies suited to a visual-gestural environment for getting and maintaining an infant's attention and for focusing its attention on signing as an activity. These strategies include physically orienting the infant so it can attend to signed communication, moving signing into the infant's visual field, and gazing directly at the infant. Thus, the model for later social language behavior in a visual-gestural language, using gaze as a principal tool, takes a culturally specific form in the early stages of life for Deaf children with Deaf parents (Erting et al., 1990).

Foster's *movement channel* has three possible uses: 1) gesture and facial expression, which are usually used in culture-specific ways; 2) action/gestural use of movement, in which there may be no clear distinction between action and gesture; and 3) non-communicative actions, such as those used to manipulate an object. Foster (1980) shows that actions used gesturally (e.g., pointing, showing, giving) emerge at the beginning of the second year and coincide with the genesis of language development, suggesting that there is an involved, emerging capacity for symbolic communicative behavior which is underlying both developments. As language begins to develop, gestural communication becomes secondary to it yet still continues to be an important part of the child's communicative system. In the Deaf context, a similar process develops, but the child's gestures typically become either refined as socially meaningful conversational signals or redefined as lexical signs in the child's grammatical system, since there is a modality overlap between gesture and language in the case of ASL (Pettito, 1983). Next we will turn to a brief description of strategies used by Deaf adults for getting attention and taking the floor in ASL conversations.

GETTING ATTENTION IN THE DEAF COMMUNITY

Conversation Regulators in ASL

Deaf conversational competence requires an awareness of where the eyes are looking, for both speaker and addressee, and where the hands are located. The single most important regulator in conversation is eye-gaze, because it determines the boundaries of when one can "speak" and be "heard." This is quite distinct from speech acts in spoken languages, where at least audition, if not active attention, can be assumed just by the act of speaking. The other important factor in ASL conversation is the position of the hands in relation to the signing space (the neutral space immediately in front of the signer's torso between waist level and the top of the head). Moving one's hands into the signing space shows a desire to begin or continue talking.

Baker & Cokely (1980) describe certain acceptable ways to get attention in Deaf culture. When an addressee is close by, a small wave of the hand in his direction or a light tap on his arm or shoulder is appropriate to get his attention. If participants are seated at a table, the potential speaker can knock or lightly bang on the table and the vibrations will let the addressee know that someone wants his attention. When speaker and addressee are farther away from each other (e.g., across a room), a larger hand-wave (either up and down or sideways) is used to attract the addressee's attention. In a setting with many participants, such as at a party or in a classroom, flicking the light switches on and off rapidly is a widely understood signal for everyone to stop conversing and direct their eye-gaze to a speaker.

Another strategy that is frequently used is to get the attention of a third party nearer to the addressee and request that person to tap or wave at the addressee and direct his attention (by pointing) to the person who wants to speak. This kind of facilitation is very common behavior in multi-party situations in the Deaf community, even where the physical distance between participants is not great (e.g., around a table). It is an efficient system to cooperatively ensure that the necessary eye-gaze is achieved between potential interlocutors, a task which could otherwise be complicated in many situations.

Once a speaker has the floor, the addressee is expected to maintain eye-gaze in the direction of the speaker. The speaker may prevent the addressee from interrupting by averting his eye-gaze

while signing, thereby holding the floor, since the addressee may only start signing after establishing eye contact. One way that the addressee can signal that he wants to interrupt or talk is to move his hands up into the signing space, even to wave, point to, or touch the speaker if he refuses to end his turn (Baker & Cokely, 1980). An aggressive way to get the floor is to simply start signing, repeating the first few signs until the speaker looks and gives up the floor, much the same way that hearing speakers "shout each other down" with overlapping turns in a discussion or argument.

Turn-Taking and Eye-Gaze

In Deaf interaction, communication is conducted in a visual medium; consequently, the rules for conversational interaction are constrained principally by direction of eye-gaze. In spoken languages, strategies for turn-taking and discourse organization tend to depend on vocal signals, such as rising or falling pitch at the end of a clause, elongation of a final syllable, or the use of stereotyped chunks such as "you know" to indicate the end of a turn. Goodwin (1981) has investigated the functions of eye-gaze in the facilitation of speaker-hearer cooperation in spoken language. He argues that "gaze is not simply a means of obtaining information, the receiving end of a communications system, but is itself a social act . . . the gaze of a speaker toward another party can constitute a signal that the speaker's utterance is being addressed to that party. Similarly, the gaze of another party toward the speaker can constitute a display of hearership" (p. 30).

This observation is even more significant in relation to Deaf culture. Mather (1987) emphasizes the point "that signed discourse differs from spoken conversation in that a Deaf speaker cannot initiate signing until the specified addressee is looking at the would-be speaker. A person cannot say something and be heard if the other person is not watching. This constraint makes eye-gaze one of the most powerful regulators in sign language, because it categorically determines when a speaker can sign" (p. 13). The distribution of eye-gaze in a Deaf communication situation differs in both form and meaning from that found in American hearing culture (Baker, 1977; Baker & Cokely, 1980). For example, Mather (1987) distinguishes between two eye-gaze signals: *I-Gaze* and *G-Gaze*. I-Gaze is a mutual eye-gaze between the speaker and an individual addressee. This gaze is held until the speaker finishes or until the addressee replies. G-Gaze, on the other hand, is a "group-indicating gaze" whose purpose is to signal a group of two or more

participants that the speaker is treating them as a unit. Additionally, Prinz & Prinz (1985) identify three types of eye-gaze between speakers and addressees used during Deaf conversations: rapid, sustained, and prolonged. These are used in the getting/giving of attention and maintaining conversational turns.

Discourse Violations by Novices

The strategies described above are normal conversational conventions of Deaf adults who are a part of Deaf culture. They are often violated by hearing people learning sign language who are not aware of discourse rules, particularly the subtleties of ASL turn-taking. This situation is not unique to ASL learners; as Gumperz (1982) points out, it is usual with second language speakers that sociocultural knowledge such as discourse structures lags behind linguistic knowledge, causing numerous misunderstandings in cross-cultural communication. The kinds of mistakes typically made by hearing learners of ASL include: beginning to sign without ensuring that the audience has directed its eye-gaze to the speaker, using exaggerated waving or waving too close to someone's face, stamping or banging inappropriately, touching the addressee in the wrong area of the body (for example on the leg, which is reserved for those who are close or intimate friends). Novices are also sometimes impatient about waiting for the addressee to be ready or able to pay attention, since hearing people are not used to the constraint of not being able to easily talk and do other things at the same time. Interrupting is also difficult for hearing learners of ASL to accomplish appropriately, i.e., to know when and how it is acceptable to enter into a conversation.

Such inappropriate conversational behaviors in learning signers are readily observable in cross-cultural encounters between Deaf and hearing individuals. What is more interesting, as evidenced by the data in this study, is that young Deaf children with their parents make very similar mistakes, even though they appear to have a basic grasp of the range of strategies involved in initiating conversation. In a cross-sectional study of 24 Deaf children's peer interaction, Prinz & Prinz (1985) found that Deaf children at play between the ages of 3;10 and 11;5 years exhibited a range of conversational behaviors which appropximated those of Deaf adults to varying degrees. They reported evidence of a parallel process of development to hearing children aquiring increasingly sophisticated strategies for getting attention and negotiating turns and interruptions. In Prinz & Prinz's (1985) study, the youngest

children exhibited rudimentary attention-getting behaviors, such as tugging and pulling the addressee's clothing, which appear comparable to young hearing children's tendency to repeat themselves persistently or yell inappropriately until they gain the desired attention.

Timing of Attention-Getting and Taking the Floor

Sacks, Schegloff, & Jefferson (1974) discuss the importance of timing in conversational organization. They find that minimal overlap in conversation seems to be a preferred norm in discourse and that gaps which do occur between speakers are as brief as possible. Sacks, Schegloff, & Jefferson call this phenomenon "precision timing" and claim that it is possible only if speakers can anticipate each other's termination points. They show that overlap normally occurs at "transition relevant points," that is, listeners usually overlap with speakers at points which would be plausible stopping places in the talk of speakers.

Mather (1987) mentions that the proper timing of turn-taking exchanges is also important in ASL and requires signers' ability to read and respond to another's conversational regulators. Prinz & Prinz (1985) found specifically that overlap in the timing of utterances in conversations of older Deaf children was much smaller than overlap observed in the talk of younger Deaf children, demonstrating a progression of discourse skills found with hearing children. Our data show instances of young Deaf children struggling with the boundaries for overlap and interruption when trying to get attention in a conversation.

DATA COLLECTION

Our data base for this study consists of a videotape of a dinner conversation lasting approximately an hour, with three Deaf children, their two mothers, and a Deaf researcher. The mothers in this study are white, Deaf, college-educated Americans whose primary language is ASL. The participants are Sue (3 years), Ben (5 years), their mother Pam, Kim (4 years), her mother Jill, and Nathie, the researcher. (The names of all participants except Nathie have been changed.) The two families know each other well and share in many activities, including school, work, and social activities. The researcher is also a friend of both families. The
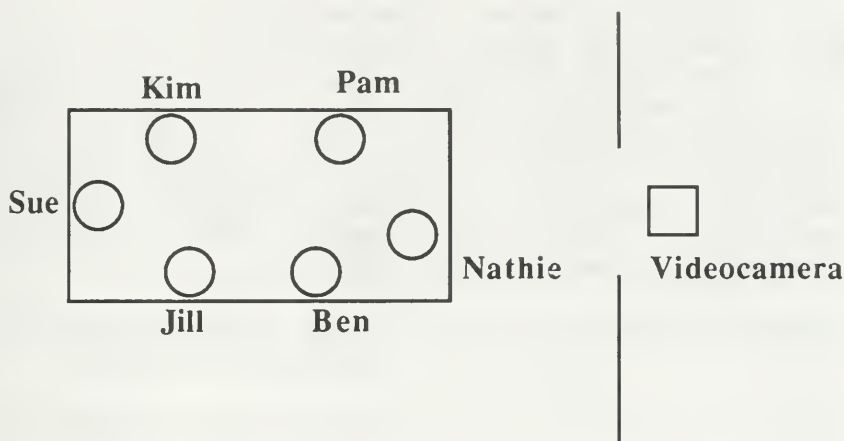
examples given in our discussion are drawn from two very short segments of interaction during the dinner, both of which focus mainly on Sue, the youngest child, and her attempts to get attention as a speaker (the segments appear in full in the Appendix). We chose to focus on these segments, totaling less than one minute, because they are rich in a variety of behaviors in which we were interested: the use of eye-gaze and other conventionalized attention-getting signals in ASL. Furthermore, these particular segments show both successful and unsuccessful use of these strategies by the child as well as the consequences in terms of adult and peer responses.

The following diagram shows the spatial arrangement of participants at the dinner table:

Transcription Notes

The transcription system used in this study is adapted from Foster's (1980) representation of verbal and non-verbal interaction between young children and their mothers. All of the examples used in this analysis[2] show the interaction of at least two participants, with four channels of communication shown for each:

E = eye-gaze
S = signs (lexical)
G = gesture
M = movement

We use gesture here to mean an action with communicative purpose (e.g., tapping on the shoulder), as opposed to movement which includes non-interactive actions and other behaviors, such as eating.

The transcription should be read from left to right, representing the passage of time. When read vertically, the transcription shows speech, actions, etc. occurring in relation to each other as time goes on. According to published transcription conventions for ASL (see *Sign Language Studie* journal), the following code is used to represent ASL signs:

YUMMY (capitalized)	=	an approximate gloss (English equivalent) for a sign
+	=	a reduplication or repetition of the sign, (e.g., YUMMY +++) where the same sign is repeated three times (in this case to show degree of intensity)
_____q (above sign glosses)=		(facial) grammatical marking for a yes/no question
_____wh-q (above sign glosses)=		(facial) grammatical marking for a Wh-question

DATA ANALYSIS

Timing of Interruptions

In our data, three-year-old Sue's attempts to take the floor cause overlaps but usually not at timely transition points in the conversation (Sacks et al., 1974). In Example 1, Sue attempts to get the attention of Jill (the other mother) when she is already engaged in an ongoing conversation with Pam, Sue's mother. A more timely transition point for an interruption would have been at a natural pause in the conversation, signalled by lowered hands or the disengagement of the participants' mutual eye-gaze:

Example 1

Jill and Pam already engaged in conversation about their work. Gazing directly at each other.

```
    E-----on Kim---------------------------------------------------------|on plate------------------
S
U   S                                      YUMMY++++++
E
    G      touches Kim's hand with left hand                     waves/bangs table----

    M      lifts fork to mouth              wriggles body and head

    Translation:                           Yum yum I like this!


    E--on plate------------------------------------------------|on Sue--|on plate----------------------
K
I   S
M
    G

    M      eating  ..................................................................................................
```

Jill and Pam still in conversation, mutually gazing. Jill has a fork in hand.

```
    E---to right on table----|on Jill----------------------------------------------|on Kim--------
S
U   S                       YUMMY++++         YUMMY+++
E
    G      bangs table----|    pats Jill's hand 2 times              bangs table----

    M

    Translation:    Yum yum yum!        Yum yum yum!


    E--on plate------------------|on Sue--|on plate----------------------|on Sue------------
K
I   S                                                                        SEE CAN'T
M
    G                                              waves hand         bangs table---

    M

    Translation:                                                       She can't see you.
```

As described earlier, according to Deaf conversational norms the floor can only be taken by a new speaker if eye-gaze is granted by the current speaker, even though minimal overlap may still occur between turns (Baker & Cokely, 1980). In Example 1, Sue goes ahead with her interruption and does not succeed immediately in getting the desired attention, Jill's eye-gaze is fixed on another speaker and the other speaker is still signing. An incompetent speaker, according to Ervin-Tripp (1979), "would not gaze at or orient to partners, would display random gaps and overlaps in conversation, and would talk about objects and thoughts at whim without any regard to what has just been said" (p. 391). Like hearing children of the same age studied by Ervin-Tripp (1979), many of Sue's contributions while attempting to take the floor are quite irrelevant to other talk or redundant, e.g., Sue's comment here, *Yum yum yum*, which is relevant to the context of eating but not related to the adults' discussion at the table about their work. Sue's attempts at entering the conversation do not qualify as competent, despite her ability to command attention using culturally acknowledged signals, since there was no reciprocal gaze available initially, nor any relation between Sue's comment (*Yum yum yum*) and the ongoing conversation.

We observe however, that unlike hearing children whose attempts to get attention may be heard, evaluated, and ignored because of their lower status or irrelevance (Ervin-Tripp, 1979), the Deaf children in these data were rarely ignored in their attention-getting acts. It may be that Deaf parents (at least those observed by us in the United States) are less likely than hearing parents of hearing children to ignore their children's attention-getting signals, since in a visual modality one must physically pay attention by looking at the speaker in order to judge whether the child's utterance is relevant or worthy of attention. Presumably there are mechanisms other than being ignored which enable the child to evaluate the relevance of his/her contributions, since eye-contact is essential to show attention or noticing but doesn't always ratify an attempt to take the floor. The patterns of caregivers' attending signals with young Deaf children in a range of activity contexts would be an interesting area for further study.

Matching Strategies to Situations

Throughout these interactions, Sue uses a range of strategies in attempting to take the floor, including directed eye-gaze, banging the table, arm tapping, hand waving, and vocalizing. Problems

arise, however, when her strategies do not match situational factors, such as the distance of addressee, the current direction of the addressee's gaze, or other competing actions in progress at the time, (e.g., eating).   As outlined previously, in Deaf culture (as elsewhere), the choice of attention-getting strategies depends on several factors in the situation, including, for example, familiarity, location of participants, or the relative formality of the situation. Within each context, there are usually several choices which have varying degrees of impact, parallel to the way hearing people can raise or lower the volume of their voice to get attention if first attempts to get the attention of an addressee do not succeed. In the context of a Deaf dinner, there is a conventional range of possible ways to get attention which are tried in ascending order from least conspicuous, such as eye-gaze, or discreet hand wave, to the most conspicuous, such as a large hand wave or banging on the table until a response is achieved.   Sue's attempts at getting attention demonstrate that while she can perform many of these behaviors, she may not be fully aware of the relative impact of the different strategies or be able to judge the pragmatic conditions appropriate to their use. In Example 2, instead of making a subtle wave or light tap on the shoulder or arm of her addressee, she bangs on the table in her first attempt to get Jill's attention even though she is right next to her. This type of behavior recurred in our data and suggests that Sue favors using the "loudest" strategy as an effective, if not sanctioned, method of getting immediate attention. (Both adults tell Sue to stop banging the table for attention on several occasions throughout the dinner.):

Example 2

Kim and Pam are engaged In conversation. Jill is eating and watching Kim and Pam.

```
      E-----on Kim--------------------------|on  Jill----------------------------------------------
  S
  U   S                          MEAT                     MEAT
  E                                                             ( Pam and Kim end conversation)
      G     bangs table near Jill-----|          taps Jill on hand      points to open mouth

      M

      Translation:                                 The meat. (Look at the meat in my mouth.)


      E     on Pam and Kim-----------------------------------------|on Sue------------------
  J
  I   S
  L
  L   G

      M      eating------------------------------------------------------------------------
```

In effect, Sue uses a high-impact strategy (banging table) rather than first trying a low-impact one. Sue demonstrates this again when she taps Jill's hand as Jill lifts her fork to her mouth, when it would have been less obtrusive (and more successful by adult norms) to wave slightly in Jill's line of view or to wait for her to put her fork down before talking. Nevertheless, her second try using the tapping strategy is clearly more successful than the intitial banging one, since Jill does grant her attention after this.

Another case of not matching the situation with the strategy is Sue's banging on the table to get Nathie's attention from the opposite end of the table, in Example 3. In this case Nathie's attention would have been more politely and successfully engaged by a large hand-wave at eye level or through the assistance of a third party. Sue achieves her goal of getting attention, but not from her desired recipient; only through assistance offered by a third party was the desired attention received. It should be noted that directly naming a person (as in calling someone's name in English) is not a normal means of gaining attention in a Deaf conversation. The use of a name sign of the desired audience usually accompanies gaze at a third person who is already attending to the speaker, as a cue for that person to help attract the attention of the desired recipient. It is possible to interpret from this incident that, when her own efforts fail, Sue either independently attempts or is guided into this behavior for getting attention:

Example 3 (The three segments following are contiguous)

Kim and Pam are eating.

```
         E-----on  Jill----------------------------------------------on  Nathie------------------
  S
  U      S
  E
         G      nods head                          bangs on table near Jill-------

         M


         E      on  Sue----------------------|on  plate------------------------------------------
  J
  I      S                             GOOD
  L
  L      G

         M

         Translation:                  That's good!
```

Pam, Jill , Kim and Nathie are eating.

```
        E      on  Nathie-------------------------------------------------------------------------
 S
 U      S                      ME WANT
 E
        G         bangs  table-----------------(4th  bang)----------------------(6th  bang)----------------

        M

        Translation:        I want ...

        E         on  plate------------------------|on Sue-----------------------|on  plate--------------------
 J
 I      S
 L
 L      G

        M       eating  ----------------------------------------------------------------------------------
```

Kim and Pam continue to eat and glance occasionally at Sue and Jill.

```
        E      on  Nathie-----------------------|on  Jill-----------|on  Nathie----------
 S
 U      S                           NATHIE              WANT
 E
        G      bangs  table----(9th  bang)-|                    waves  hand

        M

        Translation:              (Get)  Nathie ('s  attention). I  want...  (meat?)

        E         on  plate---------|on  Sue---------------------------------|on  Nathie----
 J                                 _____q
 I      S                        WANT NATHIE  WANT NATHIE   Index Sue
 L
 L      G

        M

        Translation:              Do you want Nathie?                (Look  at  Sue)
```

Getting and Assessing Attention

In all of these interactions, Sue displays basic conversational savvy through her tenacity in attempting to secure the attention of an audience (but not necessarily the desired one) before she proceeds to talk. Atkinson (1979) notes that this is one of the earlier communicative competencies to emerge in young children, even at and before the one-word stage, by "using the name of the object and paralinguistic gesture in order to make sure that the adult is attending to what he, the child, is interested in. Only when this condition

254 McKee, Johnson, & Marbury

obtains will he go on and say something about the object in question" (p. 240).

Sue seems to be able to gauge the necessity of getting attention before talking, as in Example 4, where she works to get 4-year-old Kim's attention before starting, by tapping her hand. This segment occurs at the very beginning of an interactional sequence (see Example 1). Sue is trying to get Kim's attention in order to comment on the food they are eating:

Example 4

Jill and Pam already engaged in conversation about their work. Gazing directly at each other.

```
     ┌──  E------on  Kim--------------------------------------------------------|on  plate------------------
     │  S
     │  U   S                                        YUMMY++++++
     │  E
 SUE │      G        touches Kim's hand with left hand                        waves/bangs  table----
     │
     │      M        lifts fork to mouth            wriggles body and head
     │
     └──    Translation:                            Yum  yum  I  like  this!


     ┌──  E--on  plate--------------------------------------------------|on  Sue--|on  plate----------------------
     │  K
 KIM │  I   S
     │  M
     │      G
     │
     └──    M        eating  ---------------------------------------------------------------------------------
```

However, these data suggest that what is yet to be fully developed in her conversational repertoire is judgment about when she has secured the full attention of an addressee. Sue's difficulty in monitoring the attention signals (i.e., gaze) of others might account for her tendency to use overly emphatic strategies for getting attention and taking the floor, as she tries to ensure that she will be "heard" without the competence to assess when she legitimately has the floor. In Example 4, after tapping Kim's hand and establishing mutual gaze, Sue extends her attention-getting behavior to hand-waving after she already has Kim's attention. Similarly, in Example 5, after being assisted by Jill when trying to get Nathie's attention from the opposite end of the table, Sue continues to wave at Nathie after she has her direct gaze rather than begin her turn at talking:

Example 5

Kim and Pam continue to eat and glance occasionally at Sue and Jill.

```
      E    on Nathie----------------------|on Jill-----------|on Nathie--------------------
 S
 U    S                          NATHIE         WANT
 E
      G    bangs table----(9th bang)-|                     waves hand

      M

      Translation:              (Get) Nathie('s attention). I want... (meat?)
```

```
      E    on plate---------|on Sue--------------------------------|on Nathie-------------
 J                                                       q
 I    S                     WANT NATHIE  WANT NATHIE   Index Sue
 L
 L    G

      M

      Translation:          Do you want Nathie?              (Look at Sue)
```

```
      E    on Nathie-----------------------------------------------|on plate-----------------------
 S
 U    S                        ME points to open mouth MEAT points to plate    ME WANT
 E
      G waves hand at Nathie---|

      M

      Translation:               I want more meat.
```

```
      E     on Sue----| on plate------------------------------------------------------------
 J
 I    S    NATHIE (index to right)
 L
 L    G

      M                        picks up fork and eats

      Translation: There's Nathie.
```

```
 N    E on Sue-----------------------------------------------------------------------------
 A                  wh-q
 T    S             WHAT
 H
 I    G
 E
      M
      Translation: What? (I'm paying attention)
```

Such redundancy (in the sense that the hand-waving is continued beyond the minimum necessary point) is not unusual in a novice but would definitely be considered unusual if exhibited by a Deaf adult.

Selecting Specific vs. General Recipients for Attention

Sue appears to have several attention-getting devices at her disposal (directed eye-gaze, waving, tapping, banging), but, as shown above, her attempts at getting attention indicate that she is still learning how to select these devices effectively for the context. The data also suggest that she is not always able to coordinate different channels, such as eye-gaze and waving in the same direction to a specific addressee, as was seen in Example 2, where she is banging the table to her right and gazing to the left.

An alternative interpretation of this behavior is that Sue is not sure whose attention she wants; she knows that in general she wants an audience, but has not made the recipient explicit. Keenan & Schieffelin (1976) point out that this is a problem which can also face hearing adults in multi-party situations, but it is more acute for children who "(n)ot only must . . . learn to secure the attention of the listener, but when several potential respondents are available, they must select explicitly" (p. 357).

In this study we see Sue being socialized into this skill of recipient selection, both by a peer and by adults. In Examples 4 and 5, in her efforts to get Nathie's attention and address her specifically, Sue's first strategy is ineffective as it is not clearly directed towards a specific person, even though she is attracting general attention to herself by her large hand-waving. Sue is then assisted by Jill who by this time is gazing at Sue because of her undirected attention-getting behavior. Jill apparently interprets from Sue's focused eye-gaze who her intended addressee is, checks on that person's (Nathie's) availability, and then signs her name and points to her while looking at Sue. In other words, Jill is cueing her to go ahead and start her talk to Nathie, which Sue then does. This particular incident raises the notion of "guided participation" (Rogoff, 1989) evident in the interaction between Jill and Sue.

Guided Participation as a Speaker

Rogoff (1989) discusses the collaborative structuring of problem solving in the interaction of mothers and their children, proposing that mothers or caregivers in various cultures structure children's activities to help them achieve their goals, according to their level of competence in a particular situation. In the sense that talk is an activity, and getting attention to take the floor is a goal within it, we see examples in these data of adults and children structuring or modifying the activity to help Sue become a

conversational participant. Rather than ignoring Sue's efforts to assert her speaking rights, regardless of the timeliness or relevance of her contribution, she is actually assisted and monitored in her attention-getting attempts by adults and an older peer. This observation is consistent with Schieffelin & Ochs' (1986) contention that middle-class American parents' interaction with young children shows a high degree of accommodation to the less competent participant (unlike some non-Western societies in which the child is expected to accommodate). Data in this study suggest that Deaf and hearing American parents are somewhat similar in their orientation to socializing young children.

In the interaction in Example 1, Sue tries unsuccessfully to get Jill's attention to make a comment, and she is quickly guided by an onlooking peer. The slightly older child, Kim, informs her that Jill can't see her. Kim has apparently ascertained who Sue's intended addressee is by her eye-gaze, checked the gaze of the intended recipient, and gives Sue an explanation as to why her strategy is ineffective.

In Example 5, third-party assistance to Sue in taking the floor is offered in the form of monitoring and modelling. In this case Jill is guiding the child towards an alternative means of initiating conversation with an addressee through the facilitation of a third party. The child at age 3 may already know that she cannot begin to talk until eye-gaze is established but is not yet proficient in attaining that goal by her independent actions. Normally, in using the aid of a third party to get the attention of an addressee, a Deaf adult would specify to the facilitator exactly whose attention was desired by pointing to or naming the addressee (e.g., "please tap Nathie for me" or "I want to talk to the person next to you please"). In Example 5, the child shows an incomplete command of this strategy simply by demonstrating (by undirected hand-waving) that she wants attention, fixing her eye-gaze on Nathie (the intended addressee), and signing her name. Jill is able to infer the child's intention to speak to Nathie and asks her if she wants Nathie. Jill then checks on Nathie's eye-gaze and directs Nathie's attention to Sue by pointing at the child. Finally, Jill looks at Sue and points to Nathie, in effect giving the floor to Sue. Presumably, the child is learning that it is acceptable to seek assistance in establishing reciprocal eye contact to initiate a conversation. Sue is encouraged to learn the appropriate sequence by the adult's expansion of her incomplete cue. Ochs & Schieffelin (1984) note the frequent role of adults in facilitating children's participation in verbal activities in general, including expansion of the child's utterances into an event-

appropriate contribution. In this context, the adult facilitates the child's participation by becoming a tool in the child's interaction, and thus the attention-getting attempt becomes a joint activity (Leont'ev, 1981). The adult's cooperation also models a specifically Deaf discourse strategy for achieving successful communication between speakers and addressees in a multi-party setting.

CONCLUSIONS

The interactions examined in this study reflect Rogoff's (1989) notion of guided participation of novices and an activity theory perspective on the collaborative nature of talk. We observed that in the process of socializing Deaf children to get attention and take the floor in conversation, there are at least two main tasks or sets of tools to be appropriated by the child. The first is simply to have control of culturally recognized behaviors in gaze, gestural, and linguistic channels (i.e., gazing, tapping, waving, signing). Our main subject, Sue, appeared to have a basic command of all these signals although this repertoire alone wasn't enough to enable her to always get attention as she intended. The second and more complex task is for the child to be able to select an appropriate attention-getting strategy for each interactional context she encounters, taking into account pragmatic factors such as the number, placement, proximity, relationship, and other activities of participants. The main indication of Sue's novice status as a conversational participant was her use of attention-getting strategies which were more emphatic than those considered appropriate by adults, a practice which might be true of children in other cultural contexts as well. Sue appears to be in the "zone of proximal development" with respect to this competency (Vygotsky, 1978). By this we mean that she can sometimes achieve her goal of getting attention independently, but her efforts are more successful when assisted by more expert participants. The collaboration between novice and experts in these interactions suggests a guided process of development in which Sue is learning to use and assimilate more adult-like strategies for social interaction. In any society, members have to acquire strategies to communicate in a wide range of contexts; this example of Sue acquiring the skills of getting attention and taking the floor as a speaker in Deaf culture is no exception.

The socialization of attention-getting as demonstrated in this study involves monitoring, guidance, and ratification by other participants with respect to Sue's efforts at getting attention.

Our second point is that this study allows us to see how similar communicative resources available to the young child may be appropriated and shaped differently as interactional tools in different cultural settings. By this we mean that young children in all cultures have channels such as eye-gaze and gesture available to them (with the exception that in a Deaf context the vocal channel is not usually available as a resource). Our data show that when communicating in ASL through a visual-gestural modality, the use of eye-gaze and gesture evolves into conversational behaviors which have specific significance as strategies for participating in conversation (i.e., getting attention, in this case). In addition, the modality or social context also determines what assumptions can be made by speakers about attending or ignoring. For example, in Deaf culture, attention must be attained and expressed explicitly through directed eye-gaze, and this may often be accomplished cooperatively between a prospective speaker and other participants who are not the intended recipients but are active "bystanders" (Goffman, 1981).

This description of the joint socialization of novices into culture-specific attention-getting strategies brings us back to Leont'ev's concept of tools as socially developed ways of using forms. In a similar vein, Engeström (according to Smith, 1990) contends that tools allow us to act productively and that people empower themselves through developing productive capabilities. This idea seems especially applicable to a study of language socialization, where we can see a Deaf child acquiring the productive language skill of entering or initiating a conversation, a skill which allows her to engage with others in her social environment.

Finally, we believe this study of how Deaf children are socialized as conversational participants has relevance to the issue of empowering them as communicators. Since this situation of native socialization is the exception rather than the norm for Deaf children, children such as those in this study probably have a more empowering start to life than most Deaf people. The children in this study are encouraged to take their place as competent participants in everyday talk and are learning to expect that they can manipulate linguistic tools to communicate and be responded to in reciprocal ways. Deaf children in hearing families, on the other hand, usually interact less with their mothers and are much less likely to initiate communication than either Deaf children with Deaf mothers or hearing children with hearing mothers (Meadow, Greenberg, Erting,

& Carmichael, 1981). Furthermore, the language they experience is frequently directed *at* them and is controlling rather than dialogical (Schlesinger, quoted in Sacks, 1989, p. 68). This pattern seldom enables Deaf children of hearing parents to acquire the tools for becoming autonomous partners in interaction with their parents or siblings as pre-schoolers.

In view of this reality, it seems important to examine the details of how these competencies are successfully acquired by Deaf children in a native signing context, so that such insights can be shared with those who interact with young Deaf children as agents of language socialization (such as hearing parents and educators). Hopefully, a better understanding of how talk is organized in a Deaf context (according to the constraints of a visual-gestural medium) will contribute to the process of empowering other Deaf children who are without the benefit of native socialization experiences.

NOTES

[1] *Deaf*, with an upper-case "D," refers to people who are members of a community sharing the language of ASL and a set of cultural values, practices, and perceptions about the world. *Deaf*, then, infers cultural and linguistic identity, whereas lower-case *deaf* refers only to the audiological status of having impaired hearing (Padden & Humphries, 1988). Subjects in this study are *Deaf* in the cultural sense and use ASL as their primary language.

[2] See Appendix for a complete transcript of the two (non-continguous) interaction episodes used in this study. Examples represented in the text are mini-segments taken from within each of the two interaction episodes.

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Rachel Locker McKee is a doctoral student in Applied Linguistics at UCLA, from where she also received an M.A. in TESL. She has worked as a sign language interpreter in her native New Zealand and in the United States and is currently employed under a federal grant at California State University,

Northridge as a curriculum developer for interpreter education. Her research interests are in descriptive and discourse analyses of signed languages, the acquisition of sign language, and the interpreting process.

Kristen Johnson received an M.A. in English at California State University, Northridge and a second M.A. in Anthropology at UCLA. She is currently collecting data for her Ph.D. research in Anthropology at UCLA. Her interest focuses on culturally-related issues of deafness, such as miscommunication between hearing and Deaf people in classroom settings, Deaf socialization practices in the home and school, and narratives in family interaction.

Nathie Marbury, a doctoral student in Applied Linguistics at UCLA, holds two M.A.s: one in Special Education and one in Educational Administration and Supervision. She has taught American Sign Language and English at Kendall Demonstration Elementary School in Washington, DC and is now the ASL specialist at the California School for the Deaf in Fremont. Her research interests are the acquisition of ASL and English by deaf children of deaf parents, discourse analysis, and storytelling techniques.

APPENDIX

INTERACTION 1 (19 seconds)

Jill and Pam already engaged in conversation about their work. Gazing directly at each other.

```
   ┌     E-----on  Kim--------------------------------------------------------|on  plate----
   |---------------
   |  S
   |  U  S                                    YUMMY++++++
   |  E
   |     G       touches Kim's hand with left hand
   |     waves/bangs  table----
   |
   |     M      lifts fork to mouth            wriggles body and head
   |
   |     Translation:                          Yum  yum  I  like  this!
   |
   |
   |     E--on  plate----------------------------------------------|on  Sue--|on  plate-----
   |-------------------
   |  K
   |  I  S
   |  M
   |     G
   |
   |     M      eating  ----------------------------------------------------------------------
   |-------------------
   └
```

Jill and Pam still in conversation, mutually gazing - Jill has a fork in hand.

```
┌      E---to right on table----|on Jill----------------------------------------|on
|Kim--------
|   S
|   U   S                    YUMMY++++              YUMMY+++
|   E
|       G    bangs table----|            pats Jill's hand 2 times              bangs
|table----
|
|       M
|
|       Translation:    Yum yum yum!         Yum yum yum!
|
|       E--on plate------------------|on Sue--|on plate----------------------|on Sue----
|--------
|   K
|   I   S
|SEE CAN'T
|   M
|       G                                              waves hand          bangs
|table---
|
|       M
|
└       Translation:                                                          S h e
|can't see you.
Now Jill turns her gaze to Sue.
Kim and Pam eating and watching interaction between Jill and Sue.


┌      E-----on Kim--------------------on Jill------------|on plate------|on Jill-------
|--------------
|   S
|   U   S    YUMMY+++              YUMMY++++++
|   E
|       G                bangs table----------------
|
|       M
|
|       Translation:  Yum yum!         Yum yum yum!
|
|       E     on Sue----|on Kim----|on Sue----------------------------------------------
|--------------
|   J
|   I   S
|   L
|   L   G
|
└       M
```

Pam is eating. (Kim's interaction is blocked on the camera by Pam.)

```
    ┌─     E---on Nathie---|on Kim----------------------------------------------------
    │ S
    │ U    S    YUMMY++
    │ E
    │      G
    │
    │      M
    │
    │      Translation:  Yummy!
    │
    │
    │      E---on Sue---------------------------------------------------------------------
    │ K
    │ I    S
    │ M
    │      G       bangs table
    │
    └─     M
```

Kim is eating and watching the whole interaction.

```
    ┌─     E---on Jill------------|on Pam---------------------------|on plate---------------
    │ ..
    │ S
    │ U    S      "CHOKE"-------holds the sign---------
    │ E
    │      G                                                                 nods
    │
    │      M
    │
    │      Translation: Yuck!
    │
    │      E---on Sue------------|on plate------|on Pam----------------------|on Sue----------
    │ .......
    │ J
    │ I    S
    │ L
    │ L    G
    │
    │      M
    │
    │
    │
    │      E---on Sue-------------------------------------------------------------------------
    │ .........
    │ P                                          _____q
    │ A    S                                     YOU LIKE+  INDEX plate
    │ M
    │      G      waves hand at Sue
    │
    │      M
    │
    └─     Translation:                      Do you like it?
```

INTERACTION 2 (Later in the dinner, 16.7 seconds)

Kim and Pam are engaged in conversation. Jill is eating and watching Kim and Pam.

```
        E-----on Kim--------------------------|on  Jill------------------------------------
-----------
  S
  U    S                       MEAT                    MEAT
  E                                                      ( Pam and Kim end
conversation)
        G      bangs table near Jill-----|        taps Jill on hand        points to
open  mouth

        M

        Translation:                                    The meat. (Look at the
meat  in  my  mouth.)


        E      on  Pam  and  Kim----------------------------------------------|on  Sue------------
-------
  J
  I    S
  L
  L    G

        M      eating------------------------------------------------------------------------------
----
```

Kim and Pam eating and watching interaction between Jill and Sue.

```
        E-----on Jill-----------------|on  plate------------------------|on  Jill------------
.-
  S
  U    S    ME EAT MEAT      WANT ME WANT
  E
        G

        M

        Translation: I am eating meat.  I want some more.


        E      on  Sue-------------------------------------------------------------------------------
  J                                                     _____q
  I    S                                       points to plate EAT  MEAT  LIKE  YOU?
points  with  thumb
  L
  L    G

        M

        Translation:                    Do you like that meat?
```

Kim and Pam are eating.

```
┌──      E-----on  Jill----------------------------------------------on  Nathie-------------
│····
│  S
│  U    S
│  E
│       G       nods head                        bangs on table near Jill---------
│
│       M
│
│
│       E     on Sue----------------------|on  plate-----------------------------------
│·····
│  J
│  I    S                              GOOD
│  L
│  L    G
│
│       M
│
└──     Translation:            *That's  good!*
```

Pam, Jill , Kim and Nathie are eating.

```
┌──      E     on  Nathie----------------------------------------------------------------
│···········
│  S
│  U    S                   ME WANT
│
│  E
│       G      bangs table-----------------(4th  bang)----------------------(6th  bang)-----
│···········
│
│       M
│
│       Translation:      I want ...
│
│       E     on  plate----------------------|on  Sue----------------------|on  plate------
│·············
│  J
│  I    S
│  L
│  L    G
│
└──     M      eating  -----------------------------------------------------------------
 ·············
```

Kim and Pam continue to eat and glance occasionally at Sue and Jill.

```
        E     on Nathie------------------------|on Jill-----------|on Nathie-----------------
 S
 U    S                         NATHIE            WANT
 E
      G     bangs table----(9th bang)-|                      waves hand

      M

      Translation:          (Get)  Nathie ('s  attention). I  want... (meat?)


        E     on plate---------|on Sue--------------------------------|on Nathie----------
 J                                   _____q
 I    S                         WANT NATHIE  WANT NATHIE   INDEX Sue
 L
 L    G

       M

      Translation:          Do you want Nathie?                 (Look at
Sue)
```

```
      E    on Nathie----------------------------------------------------|on  plate----------
--------------
 S
 U    S                          ME points to open mouth MEAT points to plate
ME WANT
 E
      G waves hand at Nathie---|

      M

      Translation:                    I want  more  meat.


      E    on Sue----| on plate-----------------------------------------------------------
---------------
 J
 I    S   NATHIE (index to right)
 L
 L    G

       M                  picks up fork and eats

      Translation: There's Nathie.


 N    E on Sue--------------------------------------------------------------------------
--------------
 A               wh-q
 T    S                  WHAT
 H
 I    G
 E
      M
      Translation:  What do you want? (I'm paying attention.)
```