Chapter 19

Children’s Verbal Turn-Taking

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At the first stage, there is, strictly speaking, no conversation, since each child speaks only to himself, even when he seems to be addressing someone in particular. —Piaget, 1955, p. 72

How competent are young children as turn-takers? What appear to be regularities of turn properties in children’s dialogues, and in what sequence do they appear?

In this chapter, I will summarize some recent work on American adult turn-exchanges, address the question of possible reasons for the development and maintenance of these properties and their implications for cultural and contextual variation, and examine evidence on children’s turn-taking from a pilot study.

It seems rudimentary that conversational competence requires paying attention to what the partner says, and making appropriate replies. Evidence of reciprocity of attention can be gaze, minimal overlap while one is talking, and speech that is contingent on the partner’s in form, in function, and in topic. An incompetent speaker 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.

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Attention to the details of western adult turn-taking has included consideration of nonverbal features and the close timing of adult conversation in focused interaction in American samples. Philips (1975) has summarized more of this research than will be mentioned here.

The most detailed work on verbal turn-taking has been provided by temporal studies of phone conversations (Brady, 1968), and of interviews (Jaffe and Feldstein, 1970), and by careful structural analysis of natural conversations (Jefferson, 1973; Sacks, Schegloff, and Jefferson, 1974). In these studies, adult Americans:

1. Overlap only very briefly. Average overlap lengths in phone conversations of 0.25 seconds (Brady, 1968) and in interviews of 0.40 seconds (Jaffe and Feldstein, 1970) occupied only 4.49% or 3.29% of the speech stream, respectively. That is to say, over 95% of the time adults speak or listen without overlapping.

2. Allow only brief gaps between speakers. Gaps of 0.40 seconds in phone conversations (Brady, 1968) and 0.77 seconds in interviews (Jaffe and Feldstein, 1970) have been reported averages, for orderly conversations between strangers. A quarter of the time in stranger talk there is silence. Sacks, Schegloff, and Jefferson (hereafter SSJ) have called this feature “precision-timing” and point out that it is possible only if speakers can anticipate termination, or are responsive to cues of termination, and if effective devices for next-speaker selection in multiparty conversations exist.

3. Overlap at “transition-relevant points.” SSJ (1974) and Jefferson (1973) have noted that overwhelmingly listeners break in at points which would be plausible stopping places, overlapping, for example, tags or names.

4. Remedy overlap. When important material is overlapped, SSJ found that speakers compensated in a variety of ways, by increasing volume, slowing speech, repeating when the overlap ended, or stopping entirely. Such remedies of course imply that speakers are concerned that the message be fully audible.

This brief summary does not do justice to the richness of the work on turn-taking, but it highlights points relevant to the studies of children.

Why Take Turns?

The speech stream is a resource that can be shared by several speakers at a time. Theoretically all might speak at random. They do not because of an “utilitarian” reason, namely, the interest of participants in the speech of others. Gaze direction of infants towards speakers and bodily orientation to speakers, confirm that speech is an interesting event.

A corollary of the utilitarian argument is that overlaps will increase when people know what others will say. We can expect that speaker overlaps might be maximal at the most redundant point, or at the time when the major point has been made. Jefferson (1973) gives some examples from police phone conversations where overlapping occurs just after a critical informational input, when the listeners provided recognition and acknowledgment. She also points out that overlapping increases in closing sequences in conversations, which tend to be relatively predictable.

Overlapping will increase in speech events that do not require full attention, as might be the case in arguments that are highly repetitive, in concurrent praying or oral reciting, or in shouting during games.

Finally, overlapping should increase when listeners are not interested in the speech of others. Higher status or powerful persons whose messages can be expected to have more impact on the listener would be predicted to be interrupted less. Zimmerman and West (1973) found that men interrupted women more than the reverse, and in our study, we noted that small children are interrupted more than are older children or adults. Of course, it is also the case that the speech of small children is more repetitious and more predictable than that of older speakers.

A second set of arguments about the existence of turn-taking rules turns on “social norms” or etiquette. Just as a rule of turn-taking rather than strong-arm solutions to the sharing of scarce play resources is created in schools, it could be argued that noninterruption is a facet of politeness.

Recent work on politeness has brought to the fore a contradiction in ways of being polite, essentially the problem in erring by either being intrusive or being too cool. Brown and Levinson (1978), drawing on E. Goffman’s and R. Lakoff’s work, have explored the implications most fully. They are concerned primarily with breaches of face, and problems of saving face and making remedies for face-threatening acts. The fundamental contrasts are these (Brown and Levinson, 1978):

- **Negative face**—the basic claim to “territories,” personal preserves, rights to non-distruction, etc., i.e. to freedom of action and freedom from imposition.
- **Positive face**—the positive consistent self-image or “personality” (crucially including the desire that this self-image be appreciated and approved of) claimed by interactants [p. 66]

Their work is focussed on situations in which an actor undertaking a potentially face-threatening act (e.g., a demand) makes a remedy; they claim to find cross-culturally general types of remedy, according to whether positive or negative face is at issue. For example, according to Brown and Levinson (1978), in cases of threats to self-image, positive politeness consists in “communicating that one’s own wants (or some of them) are in some respects similar
to the addressee’s wants [p. 106].” “Positive-politeness utterances are used as a kind of metaphorical extension of intimacy, to imply common ground or sharing of wants to a limited extent even between strangers [p. 108].” Such means would be paying special attention to the other person, exaggerating interest, stressing common ground and identity of viewpoint, using in-group identity markers. Thus, positive politeness is interpreted as at the heart of familiar or joking behaviors. Negative politeness consists in distancings, indirectnesses, hedges, pessimism, “it is the heart of ‘respect’ behavior [p. 134].”

The system described by SSJ for adult Americans has elements of both types of politeness: negative in minimizing and remedying overlaps, positive in reducing gaps.

Variability

While every society probably has evidence of both types of politeness, it is at least a reasonable hypothesis that there are contrasts between societies both in the normal style for stranger talk and in expected styles between friends. That is, one can take the polarity Brown and Levinson postulated primarily for face-threatening occasions and extend it to the case of mutual engagement in talk. A culture that emphasizes negative politeness would, in the extreme, lead to turn rules like those in Congress, in which it is possible to talk without being listened to, and to speak without any contingent relevance to one’s predecessor’s speech. It might be called the “civil rights approach,” where autonomy, a slot in the talk stream, and the right to speak are emphasized. In such a mode the turn to talk is like a territory; gaps would be created rather than overlaps because breaches of talk time would be the violation to be avoided, and signs of interest, such as mutual gaze or immediate topical relevance, might not be expected. Susan Philips’s (1975) description of Warm Springs Indian style is just such a case, from a formal setting.

At the opposite extreme, in a society or interpersonal situation emphasizing more heavily positive affect, we might expect that emotional support and empathy would be emphasized, having as a realization indicators of relevance, acknowledgments, involvement to the point of intrusions, simultaneous completions, accelerating pace, agreements, corrections, repetitions. Interpersonal talk of this type has been described by Arpita Agrawal (1976), in Gumperz’s interethnic studies, for Indian–English colloquial conversations. In this style we would expect intrusions to be common, though they might occur in systematic locations.

When lively, fast-paced interchange is expected, gaps and replies that do not directly address the previous contribution may be regarded as violations, as cold and impolite, or at least inappropriate.

In the Indian–English study (Agrawal, 1976),

Interruptions are not taken as offensive behavior. Instead, they are interpreted as a gesture of cooperative talk, a way of supplying more information and an indication of attentive listening. Moreover, everybody is interrupting each other. Not only that interruptions are in-offensive behavior, they are also expected in some cases by the speaker [p. 68].

To the extent that factors of utility, of interest, rather than social norms motivate turn-taking processes, we would expect to find situational variability, and differences according to topics, speakers, and so on, but a basically similar pattern across societies, if we control the variables affecting interest. But to the extent that social norms vary, as described above, we will expect cultural differences. The description above implies a certain kind of congruence: Intrusions will not coexist easily with a lot of gaps, for example, in competent speakers.

Gapping is likely to be the least constant across cultures because there does not seem to be any utility consideration involved in maintaining a gap. Precision timing of interruptions, in the sense of frequent occurrence at transition-relevant points, is likely to be a general feature regardless of the amount of intrusion the social norms allow, since mature speakers can monitor and anticipate, and indeed are likely to be doing so in the collaborative informal positive style.

Both social norms and utility considerations would lead us to expect differences between speech events in the amount of overlap which is usual. Events vary considerably in their redundancy, and how much focussed attention and relevance are required.

Finally, we would expect differences between individuals, not just because of fluency, but because of the monitoring demands. According to the rules proposed by SSJ, in the multiparty conversation the quickest person gets the floor, so there is a premium on fast interpreting of speech. The slow or timid processor might have a reply ready when the transition-relevant point has gone or the topic has already changed. Many a student in a lively seminar has had that problem; it is of course far more acute for outsiders and for children.

Some Predictions Regarding Children

If children are affected by utility, we would expect that at early ages we would find mostly nonoverlaps and long gaps. We might also find more overlapping when what is said is repetitive, in arguments or competition when the children are not necessarily interested in each other’s viewpoint, and in speech play requiring minimal cues from the partner.

These predictions are based on the assumption that the starting point is a pure utility system without regard for social norms. In dyadic interchanges
there should be certain changes within the period from 2 to 4. We would expect to find more turn-relevant interruptions (since processing should improve), some overlaps due to anticipation rather than to processing delays, remedial repetitions by interrupted children, and more acknowledgment overlaps.

The three-party case may be much more difficult. In particular, we expect that children will not be able to participate well in conversations requiring that they withhold speech while others talk, if the partners are voluble. ("If I wait I forget what I want to say.") When there are peer competitors vying for a third addressee, there is no utilitarian reason to avoid interruption. In the case of a third child attempting to interrupt an older dyad, there may be a serious difficulty in monitoring the speech in the dyad well enough to identify turn-relevant points. Even when sentence monitoring becomes efficient, the more complex structure of the topic, and recognition of pending first parts for which seconds are expected (adjacency pairs in the Sacks-Schegloff scheme) may continue to prevent adequate entry. Such problems might account for adults' and older children's view that young children are poor turn-takers.

Children's Overlaps

The data against which these predictions will be examined here derive from a corpus of two types. One is a set of telephone conversations between children, and between children and adults, the youngest being 2:6. The data are somewhat fortuitous and do not have systematic variation of addressee for each speaker. In the second set of data videotapes of sibling, child-friend, child-adult, and child-parent have been recorded in the children's homes, from four families with children between 1:3 and 9:6 years of age. A pilot count of segments having overlaps has been conducted. The samples discussed below come from this corpus. The interruptions include 106 from monologue, or self-addressee, 397 from dyadic, and 316 from competitive, three or more party situations.

Do Children Overlap Excessively?

The clearest test for basic randomness or order in children's conversational turn-taking should be interaction between peers. When adults were partners of children, as for example in the telephone conversations, adults carefully controlled the speech timing to prevent overlaps and long gaps. Text 1 is a good example of focussed interaction between young children. This was the fourth in a series of play segments in which there was considerable repetition. The timing of the occurrences and their close relationship in form and content shows very clearly that the children are interested and attentive and are taking nonoverlapping conversational turns.

The three children in our counts who were 6–8 years old had the lowest average rate of interruptions per turn—5 or 6% each. The middle group varied between 7 and 21% (the highest being the excluded one in a triad). Individual and situational effects were much more striking than age differences in this small sample. We will illustrate some of these.

Is Turn-Taking Easier in Dyads?

Text 2 illustrates the problems which arose when two children were rivals for the attention of a third person. The beginning of Text 2 is an example of a referential rather than playful exchange. The conversation turns on the location of Daddy. At first the children seem unaware that there are two possible Daddys.
at issue. The turn-taking is perfect. The reciprocation of questions and replies is well ordered and diverse, including replies to an information question, both yes and no replies to polar questions, confirmation, and acknowledgment.

When the children orient to the researcher, Ruth, they stop taking turns with each other but they do not stop hearing what the partner says. In lines 3 and 4 there are two inappropriate interruptions, and one joint start at a sentence boundary. But despite these overlaps, the content indicates mutual monitoring. J repeats E's utterance on line 2, and E may on line 4 be repeating what J said or terminating J's utterance. This conversation illustrates the greater likelihood of overlap in triads. Other examples follow in Texts 3 and 4.

If we take as a test of facility in interrupting the skill that the children have in entering at syntactic or prosodic boundaries, we find that when children under 4:6 interrupted, they succeeded 25% of the time in such precise interruptions in dyads. But when they were trying to interrupt an ongoing dyad, or were competing with another for a third addressee, only 12% were appropriately timed. For older children (of 4:6–6) there was no difference, with about 27% being well timed, under both conditions.2

Further, the children were more capable in dyads than in triad conversations of completing the sentences of partners or giving anticipatory rather than delayed responses when they interrupted. Among the children under 4:6, 16% of the dyad interruptions were of such a type; in triads, only 7%. Among the children 4:6–6, 30% in dyads and 12% in triads were anticipatory. It can be seen that skill in anticipating completions or answers increases with age, but also increases in a dyad.

One of the reasons dyads may be more successful is that older partners are likely to adapt the level of processing difficulty of their speech to the partner. In intruding to form a triad, not only is there greater difficulty in following a conversation in which one is not a part, but many of the triads may not have been adjusted to the young child's level. The theory of SSJ assumes additional complexities in even a peer multiparty conversation due to the greater uncertainty as to who should speak next when a turn terminates.

Do Children Fail to be Accepted in Conversation Because of Irrelevance?

If children's slower processing of the conversation of older participants results in delayed responses or in completely unrelated talk, then it is likely that they will be ignored when they try to enter a conversation or break in on a partner's speech. In addition, the expectation that their contributions will

1 The statistical analysis of these data have not been carried further to tests of significance because the first small samples we took of the naturalistic data did not have the appropriate balance of variables which would have allowed unconfounded tests. This work is considered exploratory for this reason.

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either be redundant or irrelevant may depress responsiveness of older partners, regardless of relevance. That is, they are ignored because of status.

The younger children experience major difficulties in fast-paced processing of the speech of the others in the conversation. In a study of three children of 2, and five children of 4 years of age, for whom between 100 and 750 interruptions were examined, the 2-year olds had from 27 to 55% delayed responses when they interrupted. In contrast, the 4-year olds had from 9 to 20% delayed responses.

The likelihood that an interrupted partner will ignore versus stop when interrupted depends in part on relevance. For example, 83% of the youngest children's anticipations or completion interruptions were ignored, but 94% of their topic shifts were. A similar order appeared for the older interrupters, as shown in Table 19.1.

| TABLE 19.1 |
| Interruption, Relevance, and Age of Interrupter as Determinants of Interrupted Speaker's Remedy (in Percentage of Interruptions) |

<table>
<thead>
<tr>
<th>Remedy</th>
<th>Ignore Percentage</th>
<th>N</th>
<th>Stop Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 1:3 to 4:5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anticipate or complete</td>
<td>24</td>
<td>83</td>
<td>2</td>
</tr>
<tr>
<td>Delayed response</td>
<td>148</td>
<td>92</td>
<td>5</td>
</tr>
<tr>
<td>Topic shift</td>
<td>148</td>
<td>94</td>
<td>3</td>
</tr>
<tr>
<td>Age 4:6 to 6:10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anticipate or complete</td>
<td>80</td>
<td>63</td>
<td>22</td>
</tr>
<tr>
<td>Delayed response</td>
<td>113</td>
<td>77</td>
<td>23</td>
</tr>
<tr>
<td>Topic shift</td>
<td>207</td>
<td>79</td>
<td>29</td>
</tr>
</tbody>
</table>

But an even stronger factor is the age of the speaker. The younger the child who intrudes, the more likely are interruptions to be ignored. The young child seems chronically to be a petitioner in the families we observed, outside the stream of the interaction, too slow to follow what is being said by adults and older brothers and sisters, repetitious, and unable to get attention.

Text 3 shows two instances when a 2-year old tried to enter a conversation between an adult and her older brother. In both cases the brother is asking for a reaction from, or making an announcement to the adult, and totally ignores his younger sister. In the first segment she makes her move to control him three times, the first at an inappropriate time. Her brother ignores her on both occasions, speaking to the adult at times which are in complete disregard
to the stage of her utterance. In these cases, as in Text 2, the children are unable
to coordinate their moves toward a third party and each other at the same time.

The fact that the moves by Elly are not directly relevant to Allen’s desires
increases the difficulty in getting his attention; she fails to obtain a topic shift.

Do Remedies Increase with Age?

We assessed a variety of remedial tactics, including increasing volume,
immediate repetition, stopping, and waiting until the end of the interruption
and repeating or continuing at that time. This analysis supposes that either the
interrupted person or the interrupter can take remedial action. Excluding the
least frequent moves—immediate repetition and loudness changes—we found
that indeed the older children—above 4:6—were somewhat less likely to
ignore overlaps whether they were the interrupter or interrupted. When
interrupted, a quarter of the time the older children tried to make a remedy,
but only 11% of the younger children. Stopping was most frequent for the
interrupted children, delayed repetition or continuation for the interrupters.

Text 4 contains several interruptions of Karen by her irate younger
brother. She stops twice when interrupted and starts a new tactic. Her first
move to control her altercation is to grab the scarce commodity, the egg dipper,
and then she continues to calm him by shushing (in a whisper in deference to
the videotape), and to divert him by attempting to control what he wants, the
removal of his egg. His target, the younger friend, eventually capitulates but
interrupts Marko sotto voce with an epithet so he has the last word in the
episode. Her remedies can be seen as part of a stance of restraint illustrated by
the shushing, and also as motivated by her desire to attend to what is going
on in order to resolve the dispute. Both are capable attention-getters with
vocatives and loudness shifts.

In Text 5 she employs a subtler strategy that would not have been detected
in our statistics. She prolongs the vowel of “hope” in order to allow the rest
of the utterance to be said in the clear where she intends to make a joke. In
Text 10 we will see some moves by younger participants to obtain the floor
for jokes.
Does Appropriate Timing of Overlap Increase with Age?

In the earlier discussion of dyads versus multiperson groups, it was mentioned that for the younger children precision timing was especially slow in the latter, being 12%, compared to 27% for the older children. There is, surprisingly enough, even an age contrast in cases of monologues. These are settings in which the child's fantasy appears to have the self as primary audience, even though there is often, as we will see, evidence of awareness of the interaction of others. In this kind of setting, only 2% of the youngest and 16% of the older children had precisely timed interruptions. In the case of dyads, there was no age difference; 25 and 27%.

Text 6

Setting: T's house, T, Mother, researcher D.
T has been nagging to show researchers new sprinklers. (04-06-1-181)

1. T: 4:4
   Mother: Maybe we could do that at the end.
   Adult D: No, not at the end.

2. T: now. Cause I want to show him.
   M: Well you know it's so warm out.

3. T: No, let's do it now.
   M: side. And they've been in their hot van.

4. T: I'll be they'd just like to sit for a while.
   M: I'm flying way up.

5. T: Mommy. It has a little problem with patience. We're
   M: working on patience. What is patience, T?

6. T: I want to turn them on now.
   M: What is patience? Can you remember?

Text 6 illustrates what is meant by precision timing, which in this case is made easier by the dyadic situation. The first interruption, on line 3, occurs at a point that might be terminal, though the drop on out is not final. Again, on line 4, while could easily be sentence terminal. On line 6, come on can be a full turn, indeed it forms a perfect introduction to the child's own utterance.

Does the Type of Speech Event Alter Turn-Taking?

We have shown in Text 4 that an argument can generate interruptions, and in Texts 3 and 6 the importuning of persistent speakers whose wants are not satisfied leads them to pleas which interrupt. Text 7 is an example in which the child who intrudes keeps violating the rules for that speech event. As a result—perhaps—her older brother continues to ignore her, by interrupting until she can only participate by picking up his theme of fantasy and completing his song.

Text 7

Setting: A and J in own playroom with castle.
(02-02-1-275)

1. A: 4:11 Oh yes
   J: 3:9 Who's that knight?
   A: I'm flying, (flies doll)
   J: Who's that knight?

2. A: I'm the sha-sha-ay
   J: Who's that a knight?
   A: I'm flying, yes I'm flying. (singing)

3. A: I'm flying flying flying ooh yeaa, yeaa, yeaa, yeaa, yeaa
   J: Flying off the pole. (singing)

During the stage of enactment of a fantasy it is not appropriate to discuss the characters out of role. J's questions disrupt the action and are inept by the normal procedures we have seen in children's role playing. His continuation is of course also an act of domination, as we will see even more clearly in Text 8.

In Text 8 two domineering and successful children are in interaction. Kate's deftness is immediately displayed with her story about Hawaii, which might be bound to draw attention. Alex is involved in a complex role-play in which he takes several parts. While it is usual to call such play egocentric, it is apparent that he is tuned in to the other child, and indeed it could be argued that she constitutes an audience. Like Janine in Text 7, she violates the rules by asking questions, but the question about where is manageable as part of the fantasy itself, and by line 4 Alex has capitulated enough to reply. Kate enters the play, like Alex, with register shifts to display roles, and on line 5 has adopted the scene and tried to adjust to the characters mentioned by Alex, but on 6 she tries to hold her own and keep the king out of the action. Her increase in loudness makes an insistent claim about the king's time, and Alex incorporates her statement and loudness into his next move on line 8.

How has interruption played a part in this deft entry into what appeared to be solitary play? There are only three points of overlap. At first, when there is a simultaneous start, J remedies with repeats until she gets a reply. In line 7
her utterance seems like an introduction to her announcement on line 8, which is both in the clear and quite loud. Since it substantially repeats the overlapped segment, it can be considered a remedy, and in fact the overlap on 7 seems to be a move to take over the thematic control of the king's schedule, just as her denial on line 6 was. By the end of the episode the two children are fully collaborating.

A telephone conversation has some properties of its own, namely, it cannot be sustained by visual cues. Text 9 is introduced here to illustrate a case with several violations of the norms both for conversational interaction in general, and most specifically for phone conversations, and to show that children under four can use interruption to try to reestablish those norms.

Marko commits a series of normative errors starting in line 1: (a) He asks a confirmation or repeat question, which normally demands a reply from the partner, but he begins to talk immediately so he does not hear the reply; (b) on line 8 he asks for agreement but interrupts before he hears her refusal (later he asked an information question and answered it himself without listening to her!); in all of these cases, he displayed a violation of a norm already known by the 2-year-olds in the study, namely that questions solicit replies; (c) Sonia asked him a question four times to which he never replied; indeed, on line 1 he waited for an abnormally long time before even soliciting a repetition—thus when asked a question he did not cooperate; (d) in telling his narrative, he never tuned into the cues that she was bored, and ignored five loud calls to him; (e) even after she explicitly told him not to talk all the time—I can't talk to you if you talk to me—he proceeded as if she had been fascinated by his story; (f) he referred to someone she didn't know, with no explanation (on other occasions in face-to-face interaction he had identified strangers for listeners); and (g) he did not notice when she said goodbye, and later did not notice immediately that she banged down the phone angrily.

Sonia's interruptions were at the service of derailing an ongoing event which was in too great violation of interactional patterns at her age and did not interest her. A year later, in Text 10, she also tried to get Marko to talk straight, probably a reference to his false starts, perhaps his lisp.
Setting: Telephone conversation initiated by M’s mother. M, Mo, Nelly at one house. S and Lina at other house. (06–10–6)

1. M: 4:5
   S: 4:2 Marko, are you on the phone? (1.2) Hi Marko.

2. M: Hey Sonia
   S: (sigh) um i just I-I-I had some cowboy suits that I-I just just um

3. M: (2) I just in a cowboy suit, and you know I just got out of it. What?
   S: wwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwwww
33. M: um, my mom's gonna take care of me. And I have a French girl named
34. M: Jacqueline—
35. M: on the phone, ya know, and I hear-ed Nelly talk to you because of the tape
36. M: recorder Mom put on, (squeaky) Do you notice, do you hear this, Marko?
37. M: It's louder. (1.6) You're louder. I turned the phone again.
38. M: (turning) Do you hear this, Marko?
39. M: Those noises?
40. M: (turning) What did I say? I couldn't hear ya.
41. M: (xxxxxxx) Ya know um um I phoned but my ear was off the hook
42. M: when you were (laughing) talking to me, he he he (implosive) Hey Toodoodoodoo
43. M: I to-a-ve yaknow who I love what's the bad bear, I love the bad
doo doozo.
44. M: bear, (my) friendly elephent too, teeeheee teeeheee. I-I-I made a picture of
45. M: Miss Muffett (giggles) (3)
46. M: the rain out there (head turned from phone) There's (4.0) You silly billy. (2.2) There's
47. M: Hey lookit. Um-you know, I like be-I love bears.
S: not people coming.
48. M: coming. (2.0) Is it your birthday or something?
S: I love bears. (1) I love bears!
49. M: (1.8) Hey, I took—I just (pulled) a fur—Hey I took out a fur from my cat. (2.5)
50. M: Hey wadaya wadaya (singing) This is a (real weird little boy) (odd voice)
51. M: ayayaya (singing) That's not a wieyji dog (imitation of S) (1.5) Hey, I made a
52. M: bone for a doggie. haa haa rrrrrrrrr haa latala latala didyda didydo
53. M: arrgarr arraggh arragh (rrr) Arragh arragh I'm a doggy.
54. M: arraggh arragh (rrrrrrrrrr) Are there—two arragarr (xxxx). tigers sleeping? (funny voice)
S: (1.1) Hoi Marko.
56. M: different kind of—do you have a different swing? (1.2)
S: Again a bully ring?
57. M: Do you have a different swing? You didn't have any swing? All right
S: (1.2) No.
S: Hi Marko.
59. M: Hey hey Sonia. Didn't you hear me say bye-bye?
S: (2.5) No, I didn't say bye-bye.
60. M: I-I said bye-bye. I-I just tricking you. Hey (2) I thought I had a pennis
61. M: a—near me. (4.2) A pennis in your nose. Who took the p—(aside) What if I went over to your house right
S: now?
62. M: Muffett. There's a (xxxx) What if I went over to your house right. There's Miss Muffett and then
S: now?
63. M: (draws in a big breath) Here um S: went back to my house and went back and forth back and forth knock knock
64. M: Miss Muffett was eating her (laughing) Christmas pie. (giggles) Jack and Ji—
S: (high voice) babababa babab
65. M: Here S: here here here's Marko jack and Jill (sings:) Jack and Hey Ja—
66. M: Hey Sonia, this is Jack and Jill. (sings:) Jack and Jill went up the hill to
67. M: get a pull of water. Down he came and—up he came and down he came (laughing)
68. M: the ladder and then he's under wa—ader. (2.6) Hey wait a minute. (I gotta git the)
S: Marko diddle cylooe ey loofoo.
ping the phone and laughing about it. This key is manifested in a series of separate segments, each of which has its own turn properties. The key continues to be signalled through giggling.

3. Nonsense and fantasy can cooccur with each other. Funny sounds and onomatopoeia can cooccur. Note line 47, where the emphatic rambling expression of love for bears overlaps with Sonia’s joke about what information was offered earlier. Marko insists on repeating this utterance until it is in the clear. The singing and onomatopoeia occur together in line 52.

4. Ordinary exchange of information in this conversation employs standard turn-taking. In addition, ritual formulas, such as greetings at the beginning and again on lines 54 and 57, and repetition games (as in Text 1) show turn separation.

5. Toward the end of this conversation, Marko attempts to launch a more complex game. The game is suggested first by his reference to Miss Muffet. During a period of time, as shown by false starts and by the intake of breath on line 63, he is engaged in the effort of formulating the joke that emerges on line 64 as a combination of two nursery rhymes. In this creative endeavor he ignores the simultaneous joke of Sonia, about going back and forth the several miles between their houses. Marko’s joke sets off an activity of alternating in making up funny endings for nursery rhymes. Marko intends this to be an activity of some complexity requiring Sonia’s full attention as he formulates a new version of Jack and Jill. It is not clear whether his repeats and hesitations are an attempt to get her to attend or to formulate the rhyme himself with effort. Eventually he has to resort to culling out to her. By line 72 Sonia has caught on and is trying her own version. Marko embroiders on the event in 75 by inserting a phase of writing his lines, in a spoken rather than sung voice.

This text is an excellent example of the negotiation of a diverse series of verbal play types by purely auditory means. It displays the grouping of sound play, rhyming, singing, nonsense, animal noises, register shifts, pragmatic jests such as mock greetings and partings, nonsensical stories, giggling, fantasy, and a more complicated parody of familiar poems, all of which must in some sense be varieties of the same overall type of speech event to be alternated so comfortably in a conversation of uniform key.

What is striking about the turn-taking in this conversation is precisely that the flows between separate turns to simultaneous turns coincide with changes in the nature of the moves used for play. Whereas smaller children are likely to attend rather fully to each other’s sound play, these adept older children do not need full attention and have a more complex structure of simultaneous, congruent, but slightly different play, like partner dancing at a distance. When one child wanted to move out of this style of relation to focused engagement, he had to use deliberate strategies of getting attention. He seemed to anticipate that a complex joke is not funny unless it is heard fully, and that

Yet the same two children in the later text were able to carry on an extraordinarily rich and successful telephone conversation which serves to illustrate a wide range of phenomena about turn-taking:

1. Children allow considerably longer gaps in their normal talk than adults accept in the same culture, especially on the phone. Brady’s phone study (1968) found mean speaker-switching pauses of 40 seconds, almost half as long as face-to-face pauses. This conversation contains several gaps uncomfortable to the transcriber, notably those longer than 3 seconds, on lines 45, 46, 57, and 60, where topic transitions occur. The children also get up and leave the phone, and carry on side conversations. These practices also occur in teenagers as they are not unique to young children.3

2. A key of playfulness was established early in the conversation, which affects what occurs later. Its onset is in line 14 when Sonia produces nonsense, and Marko then joins in. There is a rambling exchange of information until again on line 36 Sonia starts into funny noises, which Marko answers by drop-

3 The measurement of gaps here is relatively crude, being done with a stop watch and second hand. We found in general that delays less than a second were not noticeable and seemed to be cases of direct continuity. These intuitions fit the observations of Jaffe and Feldstein who found gaps averaging 0.77 seconds between speakers. For the shorter gaps, for example, 1.2 seconds, many observers might disagree that they were even worth noting, given our probable error.
the nursery rhyme jokes, which had punch lines, were not repetitive and redundant and so required both more effort to produce and more attention to appreciate. The children, then, perhaps as a natural consequence of what I have called the utilitarian rather than polite view of turn-taking, seem to recognize that some moves require more attention than others and call for a different style of turn-taking. In this case it is the speaker who makes that distinction, as though he expects that the effort to produce must be matched by the hearer’s attentional effort.

Some parts of this text, as of others we have collected such as texts 8 and 9, fit the description of “collective monologue.” Detailed analysis shows a much more delicate attention to action in the environment of the child than such a sharp category would imply. This conversation illustrated vividly both focused full attention and partial attention which registers only some cues as displayed in repetition, copying of rhythm or pitch, and accommodation of key or act. Indeed, it may be proposed that a better set of analytic categories could arise out of criteria in turn-taking of utterances.

Discussion and Summary

Catherine Snow (1977b) has recently given a vigorous account of the many devices by which English middle-class mothers build the sounds and early words of their babies into turns in a conversation. She points out the radical distortions of frequency which seem to reflect the mothers’ use of the simplest response-eliciting devices such as greetings and tag questions. The open question remains, of course, what children learn of conversation this way other than reply formulas. To find out, contrastive studies of families without such “training,” comparing resultant effects on interchild interaction, will be necessary.

In this paper I have argued that no deliberate shaping of this sort might be needed to accomplish certain facets of conversational turn-taking. The child’s interest in the partner’s speech alone can accomplish focal attention. Ordinarily, attentive dyadic interchanges do occur in our samples at an age when adults often consider children to be quite incompetent conversationists. By age 2, children are capable of replying to adjacency pairs such as greetings, yes–no questions, confirmation questions, control questions, or commands and offers. But they have not yet developed acknowledgment markers like “I know,” or many tying devices; they permit long gaps, and their relevance constraints are weak.

A reason for the impression of turn-taking incompetence is the child’s vulnerability to a long list of factors which can disrupt order, or which convert the ground rules for attention. Young children were less able to manage situations of competition for the attention of a third person, or intrusion into an ongoing conversation. They were less able to anticipate or complete the responses of others when interrupting, so their interruptions were more likely to be regarded as irrelevant topic shifts or delays. And when they tried to enter the conversation, they were more likely than older interrupters to be ignored.

SSJ (1974) have argued that “the turn-taking system builds in an intrinsic motivation for listening to all utterances in a conversation, independent of all other possible motivations such as interest and politeness [p. 727].” Our data indicate that the more relevant and immediate a child’s contribution, the less likely it is to be ignored, which suggests indeed a third reason for listening—so that one can be listened to. But relevance must be learned. It is much more evident in our data and perhaps to children that older and more powerful speakers will be listened to, regardless of relevance.

Children do want the attention of listeners—witness their attempts to gain attention by turning the head of the listener, by calls, and so on. Our texts showed that this awareness interacts with the type of speech act, so attention is asked for some acts but not others, perhaps those most effortful or felt most to be an achievement worth displaying, in addition to control moves.

Children make remedies at later ages for overlap. They stop and repeat when the floor is clear. Children of 3 or 4 report difficulties in holding an intended utterance until a turn. We can expect that they may be less able to remedy interruptions, by stopping and remembering what they want to say, while simultaneously monitoring the ongoing talk of others.

By 4½, we found some children to be able to be explicit about turn-taking rules and types of talk, yielding the hope that judgment studies might enrich what we know about social norms for taking turns.

We found a variety of social moves which led to interrupting or to ignoring the speech of others. One was urgent desire, which led children to break into ongoing speech. Another is dominating by maintaining control over the topic and timing of conversation. Interest itself can lead to intrusions, and here we find in both disputes and collaborative play evidence that turn-taking is affected by the type of speech event. Events differ in the attention required, in the utility considerations affecting the speaker and the hearer, as we argued in the case of the nursery rhyme parodies in Text 10. Events also may vary with respect to the social norms for turn-taking. Disputes in Fiji, for example, are occasions for much more overlapping than in the United States child samples (Levin and Brenneis, 1978). Because the timing processes, and the degree of precision-timing in interruptions, or structural influences in partner’s speech, can tell a good deal about children’s attention during talk, we have proposed that they could lead to new classifications of speech events and of other categories such as collective monologue. It is just because timing is not uniform, but varied across speech events that such a re-analysis is possible.

We have argued that the regularities described by SSJ (1974) in adult turn-taking derive from multiple sources, and that the balance of these factors alters timing in different social groups and different speech events, and allows
social roles to affect turn-taking. The factors we have proposed are interest in the partner's talk, desire to get a turn and not be ignored, processing skill, and norms of deference or involvement as applied to the situation, person, and event at issue. Some contribution from each of these factors is evident in the changes in conversational skill in childhood.