SPEECH ACTS AND SYNTACTIC DEVELOPMENT: LINKED OR INDEPENDENT?

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Abstract

This is a discussion of the argument that the development of syntax must in the case of many forms be understood through the study of discourse. The four levels above the utterance that are discussed are activity level, speech events, conversational exchanges, and speech acts. Examples are presented from temporal conjunctions, passives, auxiliaries, catenatives, and pronouns which all suggest a relationship to discourse features, in particular to speech act contexts.

Methodologically, the argument suggests that inclusion of a wider variety of discourse contexts allows phenomena to appear which are otherwise masked or absent. Enough is known about discourse to identify the activity contexts which will maximize the syntactic forms of interest. In analysis, variation which appears random may not be so if the appropriate contextual features are controlled.

The hypothesis of a form/function relationship suggests that in acquisition the trigger for development of certain forms may be their density and importance in the achievement of conversational goals. The social and activity context makes their meanings clear, simplifying the acquisition process. As has been shown in second language acquisition, certain repeated formal structures heard often in typical interactional situations (e.g. claims to goods, boasts about actions) are a vehicle for expansion and substitution as more is learned.

One of the first things you discover when you start studying children's language is that it is filled with charm and originality. Take an example like

"Quickly, before a witch gets me." (34 months)

It's evident right away that we cannot completely account for such an utterance. What should we consider important? A syntactic description would address the two clauses underlying this utterance, the ellipsis of the first clause, the subordinate temporal second clause, the verb agreement and pronominal case. But there clearly is more to this example than the syntax.

For most of us, the prototype of research on child language has been the study of structure in phonology and syntax. Syntax seems to be most related to what makes language special. It seems to be syntax that makes it different from gesture, different from chimpanzee communication, different from other forms of social
behavior.

The great puzzle in language acquisition has been why, all over the world, children grow up to talk pretty much the same way as their peers and parents. And this even though they don't really have to get along in the world. They could speak with an accent, they could revise the syntax in comprehensible ways. I had a Japanese assistant one year who spoke English without many prepositions or pronouns, but we understood each other to the point that I began speaking the same way. It seemed more efficient because it made use of contextual redundancies. I decided there was more to language than efficiency in communication; there was sounding like the people you admire. As we shall see, this even seems to permeate other levels of learning besides syntax.

Some people have argued that all we have to do to understand child language is to look for universals in abstract features of adult grammars. They believe that these are biologically given. But of course that leaves all the particulars to be learned. That leaves all the differences between Japanese and English unexplained. So others have paid more attention to these particulars. They have examined orders of development carefully, hoping to find universals in the acquisition process itself.

I am going to argue first that the focus on phonology and syntax has led us to ignore major spheres of structural organization in children's language. I will characterize four of these levels. I will argue that these other levels, which are outside the sentence, are essential to language acquisition. I will also argue that we are likely to reach a dead end in studying the learning of either syntax or interactional discourse without a coordinated approach, because they are not entirely independent of each other. In particular, I will argue that we miss major syntactic features by a unifunctional approach to acquisition, and that "triggering" of syntactic development can best be understood by examining discourse.

Let me turn to discuss some of the levels within which we find regularities in children's talk. The highest level has to do with activities. Activity types might be role playing, book-reading, jump rope. Talk occurs within types of activities, and the properties of talk change according to those activities. Activities co-occurring with talk are especially salient with young children, who are rarely in a situation of pure talk. The exceptions are sound play and bedtime monologues.

Activities include some that are culturally conventional such as reading a familiar story-book, contexts which are peer-structured but also conventionalized such as doctor play, relatively loose situations which are less predictable like rough-house play. If a child tells a narrative about what happened on a trip to the zoo, the language is quite different than talk about a picture book. Book talk is not just narrative, it is also quite descriptive and ostensive, that is, children describe pictures and name objects as well as tell stories. What makes the activity context relevant to
language acquisition is that contexts vary in the kinds of roles they require the child to play, they vary in the kind of speech events and types which occur, and in the functions language serves. As a result activities change not only the content but the structures the child hears and is expected to use.

Even the phases of organization of activities can affect language profoundly. We have observed that during play enactment there is less claiming of property and less disputing than during the organizational or negotiating phases. As a result of observations of a range of types of scenes, we can establish activities which will ensure the naturally high frequency of certain kinds of syntactic structures. If you want arguments with possessives, negatives and emphatic stress, get organization of peer play with too few objects, or with incompatible objects which lead to different play schemata.

The second level of regularities is speech events. I use the term speech event to refer to activities where talk is a central focus. Children have a rudimentary sense of speech event structure very early. An eighteen month old may say "Hi fine bye" on the phone, thus reflecting the three most predictable parts of the phone conversations—the greeting, initial exchange, and parting. By five, children have a meta-knowledge of telephone talk as a genre, as shown by this conversation of a native speaker to a foreign peer on a play telephone at school:

Spanish speaker: Hello, come to my house, please.
English speaker: Nora, you've got to say "What are you doing?"

The critical element here is the opener, "What are you doing?" which we found these children used in place of "How are you?" in adult speech.

Role playing plots give the best indicators of the fine-tuning of children's sense of speech event. Claudia Mitchell-Kernan even has recorded children's church services containing everything but the sermon.

In addition to sequential structure, role playing displays children's knowledge of variations in speech. Children at first rely on activities, objects, and address terms like Big Sister, and Baby, to convey role, but they come to use subtler role indicators within speech. These include markers like the okay of the teacher introducing new topics, the greater deference of the patient to medical personnel. For instance I found a "patient" saying "Give me a crutch, I need a crutch. Could you please give me a crutch, nurse?"

Their tuning of roles is marvelously sensitive. Consider this four year old example from Andersen (1990):

A: Father father come here right now. Baby threw up.
B: Oh damn it. [deep voice]
These features of higher-order organization influence language at the very time we might think we are studying only syntax. The embedding of structured events inside each other and the spontaneous shifting of registers are part of the competence of four-year-olds.

The third level of analysis is local discourse. From the beginning, we find that replies are shorter than initiations, and that we must characterize them as having a separate system.

Let me illustrate what I mean by a separate system. One child I studied at 22 months had the following possibilities for replies (Ervin-Tripp 1977b). She had just three response patterns which could be differentiated:

- To "How are you?" or "Where are you?" she replied, "Fine."
- To "Hm?" she repeated what she had said before.
- To rising pitch in any other type of question she either said "Yeah" or repeated with a stress shift.

Since many adult questions at this age are confirmation checks, these replies usually seem appropriate. But it was impossible to get new information from her by questioning. Nor did she ask questions. In such a case, it is necessary to describe a special system for responding since at this stage replies are not just transformations of initiation structures but far more limited.

Indeed many replies continue to be formulaic for years, like "I donno," or "I don't want to," or "I know."

By the period between three and four, an elaborate set of regularities is evident in replies in all the children we studied.

First, there is a great decline in ambiguity. With time, children more often answered yes and no, and more often gave relevant replies. By 38 months they regularly replaced nouns with pronouns when replying to questions about story characters in pictures.

They used conjunctions to start replies. At first, children only used connectives within their own utterances, next they began to use them between their own utterances, even across turns. Eventually, by Stage IV (MLU 3.5) children tied with connectives when they replied to others. This full range of occurred first with and, then other conjunctions followed the same sequence of changes. Because the length of units of child speech changes, it is not surprising that connectives first join nouns, then phrases, then clauses. Because was an exception. It began as a conversational second-turn form.

Most conspicuous was verb ellipsis. What is special about verb ellipsis is that the very elements that were absent in telegraphic speech now stand alone. Replies with
conjunctions and ellipsis sound very grown up, as in "But HE can." The appearance of ellipsis is a major milestone since it reveals that pronouns and auxiliaries are obligatory.

At the same stage, around MLU of 3.5, we also find emphatic stress (Ervin-Tripp 1977a). Here is an example:

"We don't have a dog though. But I do." (3;1)

Let's go back to the example from the 36 month old child: "Quickly before a witch gets me."

This is actually a reply. What happened was that after packing up the puppets they had been playing with, the researcher said to the child, who had just moved to a new house: "You were going to show me your room, weren't you?" The child then said "Quickly, before a witch gets me. I've got Huckleberry Hound upstairs." Then they went upstairs.

Syntactically, what the researcher said was a question, a tag question. "You were going to show me your room, weren't you?" The child could just have said "Yes" and continued playing, but if he had, we would have thought him incompetent.

Conversationally, this was a request, and the child's reply was to the conversational function.

How did he know this was a request? We have done a series of experiments in Berkeley and in Geneva which have shown that children as young as three carry out acts about half the time for unconventional requests. In our experiment the unconventional requests mentioned do-able actions, and later just mentioned desired objects. For instance, we might say "I can't reach my purse" when the purse was near the child. By five, many even heard "My purse is white" as a request for action, if the purse was closer to the child than to the speaker (Ervin-Tripp, Strage, Lampert & Bell, 1987).

In the case of "You were going to show me your room, weren't you?" the researcher had put away the toys. This prepared the child for a coming change. The question contained a direct reference to the desired act: "Show me your room."

Let's look more closely at what the linguist said: "You were going to show me your room, weren't you?"

We know a good deal now about how requests are produced and understood. In this case, the request contains more than one form of softening or mitigation. The way to make a judgment about mitigation or aggravation is to compare various forms. If we consider the most explicit form as "show me your room" we can show that a question is a mitigation, and also a reference to the past. Thus "are you gonna show me your room" contrasts with "you're gonna show me your room." and "were
you gonna show me your room" contrasts with "are you gonna show me your room."

It is these forms of mitigation which make the request so complicated. You may be surprised by this. You might be surprised that a researcher is so polite to a child. But in our experience, both mothers and researchers very often produce heavily mitigated requests to children in the American middle class families we have studied. I won't go into what might be the reasons, which are more sociological than linguistic.

Maybe it surprises you that after months of recording, the visiting linguist uses such a linguistically complex form. The social process of mitigation seems to be quite automatic and overrides syntactic accommodation to children. Consider the following example. At one point, the linguist asked a 26 month old,

"D'ya wanna ask Sara if she wants orange juice?"

The child replied "Uh-huh." And that was all.

On successive retries he peeled off the layers of this too complicated directive until he actually asked

L: Ya wanna say Sara?
C: Sara.
L: Do you want orange juice?
C: Uh-huh.

Because adults use complex forms from the very beginning, children must come to interpret conversation structure, in the sense of appropriate interactional responses, even when that structure is not coded literally. By that I mean there is not a direct map between some feature of the utterances and the conversational demand which must be understood. In that respect control acts are an excellent domain in which to explore the most complex features of comprehension.

In the case of English control moves such as requests the problem of interpretation includes at least two facets: I call these the action meaning and the social meaning. The action meaning concerns what the speaker expects the hearer to do if the hearer has understood the request. The social meaning concerns the status and familiarity with the addressee, and the emotional aspects communicated by the request. There is of course also a third, a textual cohesion level if a move calls for a verbal reply. Since control moves account for about forty percent of children’s talk, the acquisition of this level of structure is not trivial.

What's the evidence that children understand or convey social meaning this way? Well we have found that by the third year children begin to distinguish how they make requests for the same goal. The distinction they make can most simply be stated as a contrast according to whether they can expect compliance. They
distinguish between rights and favors, between requests for the goods of others and their own goods. So in trying to get the toys of a younger sibling, they used mitigated forms 44 percent of the time, otherwise 9 percent. They distinguish requests from mothers who normally serve them from requests from fathers and outsiders. At first these distinctions are made by overt forms like the use of "Can I have some" rather than "I want some" or "Could you tie my shoe" contrasted with "Tie my shoe" (Ervin-Tripp & Gordon 1986).

But as children get older the distinctions become more subtle, and include more complex tactics, like alluding to the obstacles to compliance facing the other person. Here's a complicated example:

"Do you have some water I could drink?"

This was from a twelve year old visitor to my house, but we have heard such forms from seven year olds. Notice the delicate combination of the permission request "Can I have a drink" inside of the question about availability of the water. Worrying about the availability of water is an example of accommodating to the other person's perspective. The use of "could" rather than "can" is a typical temporal displacement. Another example would be "I wanted to ask you about...."

By seven or eight we find wonderfully clever accommodations to the addressee. For instance, the child who says to her three year old brother: "Here Santa, take this bag of toys to the basement" while tying up her laundry in a nightgown. While these complex tactics are themselves outside the domain of linguistics they can entail linguistic consequences like the use of subordinate clauses which refer to goals, reasons, and causes (Ervin-Tripp 1982).

The first causal clauses often appear in the domain of control acts, because speakers either try to explain and justify such acts or to explain or justify refusals. The various complex changes in requests were not, we found, based on differential success in gaining compliance, but like the learning of syntax, seem to be due to modeling of examples which are grist for the child's pattern-forming abilities.

We have focussed on requests, but the variety of speech acts increases markedly during the first years. We find, for instance, that five-year-old second language learners can be contrasted to two-year-old first language learners in that they persuade, they joke, they praise, warn, plan, announce intentions, elicit complex information, contradict, explain. All this they do in their second language. Although formally their language is still primitive, although they are still beginners, their knowledge of the uses of language is different, just as their semantic knowledge is more advanced than that of a two-year-old. The consequence of this much greater range of acts—as well as the greater complexity of speech events—is that they try different kinds of syntax than younger children (Ervin-Tripp 1981).
We have seen examples from four levels of structure above the sentence: the activity level, speech event, conversational exchange, and speech act. What I intend to do now is to show how certain features of syntactic development are related to speech acts. We will look at just a few examples from subordinate clauses, passives, auxiliaries, catenatives, and pronouns. I want you to see that the level of speech acts—and presumably the other levels as well—can have links almost everywhere else in the system.

These studies re-examined issues in structural acquisition on the basis of pragmatic or functional units. But how can we know what units are in the system of the child? Linguists like to work with known categories, especially those already found in some attested linguistic analysis. But no geographer has given us the map to children’s minds. A particularly fruitful tactic has been used by Julie Gerhardt and by Michael Bamberg. What they did was to treat the child’s form contrasts as codes for features to be found. They do not presuppose what these features might be.

Bamberg (1987) took the German contrast between past and perfect, and found children used the perfect first to mark unit relations in picture narratives, namely, the end of an episode. Later, they add a new use: major shifts in perspective such as retrospection. The children also changed the way they used pronouns. At the earlier stage, pronouns had two uses: to refer at any time to a human protagonist, and to maintain reference to others. Later, pronouns were used only for reference maintenance, for both humans and animals. The change in both the nominal and verbal systems occurred at the same time, suggesting a common underlying change in the larger discourse organization. What those units were he did not presuppose, but let the child’s code contrast point them out.

Gerhardt has used this system fruitfully with respect to a series of contrasts in the verb system, including tense (Gerhardt 1988), aspect, and auxiliaries. A vivid instance is the work she did with Savasir (Gee & Savasir 1986) on the contrast of will and gonna. They found that there was a speech-event level contrast conveyed by these choices in that gonna occurred most typically during planning of play, and will during what they called undertaking. They found numerous indicators of correlated contrasts in person, time perspective and so on. What they indicate then is that the child’s language gives us a key to the child’s structural categories. But we have to be open-minded about where we might find those categories. Gerhardt has pointed out that sometimes these markers simply indicate shared knowledge; sometimes they are constitutive of the shift in context. We could say the same of other markers such as register and role features and of deference markers.

"Quickly, before a witch gets me" contains a temporal clause.

There is a substantial set of research studies on the development of temporal clauses. A lot of this research is done by asking children to act out utterances which
have been stated as narratives. This work has shown that specific markers like *before* and *after* appear later than general conjunctions like *when*, that the subordinate clause follows the matrix clause at first, and that the clause order tends to mirror the order of events.

When Aura Bocaz of Chile asked to use my data to work on temporal clauses, I said we had to see what their contexts were. We saw first that temporal clauses were found in a range of types of moves. The earliest and most frequent were clauses found in directives and in planning.

Planning might be joint activity or just the speaker's activity, such as "I'm going to make a garbage can when I'm all through with the train lid." (3;0)

Directives might be simultaneous, such as "You listen while I read," (3;3) or successive, as in "Can I have your worm when you get finished." (3;1)

These temporal clauses do not look like the ones in narratives in two ways. One is that terms like *before* and *after* appeared in them well before they were found in narratives, before three years of age. The other is that in directives the directive clause is first, before the temporal clause, regardless of the event time. So we find utterances like "Can we play outside after they take our picture?" (4;5)

Narrative clauses tend to have past tense marking on all the verbs, but once we looked at other types of contexts we found an important difference. In planning and directives, there are a variety of function markings on the main verb. These include auxiliaries, catenatives like *hafta, needta, wanna, gonna,* and *gotta,* imperatives, and *let's.* When children chained clauses with *first...then,* or with *and then* they also chained these markings. But when they chose subordinate conjunctions, the verb was only marked with present tense features. This was true from the earliest times. An example is this one:

"So long ago, and when I grow up and you grow up, we'll be the bosses."

Here *will* marks only the matrix clause. In contrast, in a parallel construction, we have "Ring the doorbell, and then you could go in."

Thus the distinction between coordination and subordination is a primitive feature which appears from the start, but was not visible when we only examined narratives. In confirmation, we found that the verbs chosen for narrative clause subordination were less telic and more stative than the verbs in matrix clauses. This was also true from the beginning of clause use.

The focus on narrative use in these studies derives, I believe, from what has been called the referential/propositional bias of linguistics, which has generally assumed that language is unifunctional. In our sample of all moves containing temporal conjunctions of two- and three-year-olds 63% were planning or directive moves, in the
four-year-olds 54%. So samples or experimental methods based on narratives distort the children’s usage. This distortion would not be important if it did not hide some basic features of clause structure and use, and mislead us about age of mastery.

Let me move to my other topics from syntax. Passives, I think, will prove to be a really good candidate for looking at the relation to discourse and interactional context. Katherine Demuth’s work (1986) on Sesotho provides a striking example. Sesotho syntax demands that the pre-verbal argument be highly topical and determine. For this reason question words cannot occur before the verb. It is not possible to say "Who lashed you?" One must say "you are lashed by whom?" Questions about agents of action are forced into the passive. At the same time, it is a Lesotho interactional feature to elicit with questions, many questions, with many social functions. Interaction with children looks like a prototypic Tannen interview. Children are bombarded with passive questions, and they are also prompted in their construction. They become masters themselves of the full passive construction far earlier than one might predict on the grounds of structural complexity alone, by 32 months. The interactional style of Sesotho speakers thus combines with a particular demand of their syntax to yield much earlier learning of a complex system.

Let us look even earlier in English, at the beginnings of the auxiliaries. In our texts, auxiliaries commonly begin in control acts, such as requests, and in statements of intent. Here are a few examples from a child of 2;2 who suddenly burst out with many auxiliaries: Could he have it? Can she came over? Could Bonnie have some juice? Can I have this worm? Could you make some more? Could I have these? While there is great variation between families in the uses made of auxiliaries, this child shows how marked these first uses can be.

Julie Gerhardt has been engaged in an extraordinarily profound and original analysis of modals and catenatives in context. She argues that face to face discourse is prescriptive, meant to guide conduct, and negotiatory, and that in such contexts even statements are typically not innocent of directive intent. Intentions, motives, and reasons become crucial. They are the domain of three units: the causal clause, the auxiliary, and the catenatives or quasi-auxiliaries. In her work on gonna and will, the two forms for referencing the future, she showed that they occurred in different types of discourse. They located intentions differently. Will identified immediate commitment and occurred in face-to-face engagements; gonna implied long range intention or purpose and occurred in planning or organizing.

Gerhardt (1990a, 1990b) has recently been examining data on want, need, wanna, hafta, and needta. She has found that in three-year-olds wanna was used primarily in requests and don’t wanna in refusals, which fits with my earlier data. Want was preferred for requests for action by others in her study, need for appropriation of goods by the child. Hafta was used by the three-year-olds she studied to refer to conventional external constraints, or to an attempt to constitute or imply such a
constraint by the use of the term. The latter uses could be said to be metaphorical extensions based on the situated prototypic uses. The first she calls *prototypic*, *defining*, *mapping*, and the second type *constitutive*, because the child’s language creates the situation (Gerhardt, 1990a).

An example of a constitutive use is the following:

J: Amy, go over there and you’ll get in the movie.
A: [shakes head] Because! See! I hafta sit right here!

In contrast, Gerhardt found that the prototypic or defining uses were argued from the standpoint of conventions, play routines, or local procedures, as in the following example:

A: [Begins to eat some tea-party cookies.]
E: Amy! But first you hafta put them on a plate!

The *hafta* here refers to the conventions of tea-parties.

In another example, E’s doll starts to go to the tea party undressed.

A: You hafta get dressed to go to the party!

It is clear in these cases that *hafta* had primary use as a refusal or prohibition form. It is a good defense against requests or intentions of others which intrude into one’s trajectory or which upset what seems the right way to do something.

Gerhardt found that *needta* contrasts in that it concerns internal rather than external constraints. One typical use is "I needta go pee-pee." That seems to be an internal constraint.

Like *hafta*, these forms functioned as a justification for refusal. They tended to occur in cases of standard treatment of objects, which seem to set up a constraint. They seem to occur there because "I need an object" had already occurred, so a need frame was established. An example is the following exchange:

A: I need this. (frying-pan from joint equipment)
E: No, I need it.
A: I needta cook something.
E: Gimme it. [tries to grab] I needta cook this rice.
A: No you don’t.
E: Yes I need.

What is special about this context is that most *need* statements occurred when a child appropriated joint property for personal use. That is, while *want* often expressed a request, *need* was likely to express an intention to claim something to
which the other also had rights, but which is appropriate to the agreed-on trajectory of activity.

Gerhardt (1990b) found that *hafta* could not be negated by the three-year-olds but *needta* could. Indeed, children shifted to *needta* to negate *hafta*. Both *wanna* and *needta* could be negated. Why can’t children negate *hafta*? The reason seems to lie in the discourse uses, which are not the same. If *hafta* is used to justify non-compliance by reference to customary, regular events, a negation has no utility for the speaker. Would the other try to persuade by a negation? But to do that implies arguing about the rules of the game, which three-year-olds can’t yet do.

I have given you such an extensive sample of Gerhardt’s findings to show you how rich the study of this part of the syntax can be when viewed from the standpoint of conversational goals.

For my last example, I will discuss the findings with respect to first person pronouns of Nancy Budwig (1989). She looked at the development of differentiation between *my, me*, and *I*. She called the youngest speakers ego-anchored because they talked only about their own activities. These children had all three forms in subject position with verbs. Had she been satisfied with error analysis, she would just have said they had not learned the pronoun inflection. But she had faith that children’s systems are orderly and she looked for their principle. What she found was that the children differentiated between moves in which they were trying to make changes—basically planning and directive speech, and moves reporting changes.

For instance, Jeffrey (*J*) and a researcher (*R*) were playing with dried peas:

R: Do you wanna play with the blocks soon?
   J: No.
   R: You like those peas, huh?
   J: I like these peas.

In contrast, Jeff and his mother (*M*) are filling bowls with peas and pretending to eat ice cream:

M: What flavor would you like?
   J: My like vanilla.
   M: Vanilla, OK. You want one scoop or two scoops?
   J: My want two csco.

In another scene, Mother tells a story while Jeff and she build together.

M: Maybe with this house here a fire occurred. And so the firemen had to come and rescue. They were building the house.
   J: [Jeffrey’s house collapsed] No! My build tower! [whiny]
In the first case, I occurs as a reply to an information question about his experience. In the second my occurs as an elicited request, and in the third my occurs in a protest. In general, I was used when the focus was on the self as experiencer, and my when the self was an agent bringing about change, as in boasting about achievements. Budwig found that the contrast in these units was regular and significant.

How did such a contrast come about? I think there are two sources. Anne Carter (1979) has shown that the one-year-olds she studied used m plus a vowel and an open-handed reach as a prototypic request, which was expanded by English-speaking mothers as more or mine. In peer contexts, we find that two-year-olds do a great deal of claiming of territory and objects with my plus noun. This is a major component of peer interaction between 18 and 30 months. Thus I think there is good reason for my to become the code for desire and claims. Earlier, in research with Werner Deutsch (1983), Budwig had looked at what was coded by the contrast of the child’s name versus the possessive pronoun in possessive constructions. They had shown that in possessives, the child contrasted desire with description, choosing "my chair" for the former and (if named Molly) "molly chair" for the latter.

The examples I have given you are from temporal clauses, passives, auxiliaries, catenatives and pronouns, and all suggest a relationship to speech act contrasts.

What are the implications of these few cues as to a relation between the syntactic level and the more macro levels of analysis? There are clearly methodological implications. Texts which include a wider variety of functions, for example, allow phenomena to appear which are masked otherwise. This was evident in our temporal conjunction research. Had we not included data of peer play we would have missed the planning talk in which the earliest temporal conjunctions appear. We would never have found the changes in order rules or the distinction between subordinate and matrix clauses in verb marking. Gerhardt and Budwig’s work relies on peer interaction heavily for maximizing function contrasts.

We know enough now about discourse to be able in fact to identify activity contexts which will maximize the occurrence of certain syntactic structures naturally. This is what Gerhardt did in setting up her dissertation research; she deliberately chose activities which would elicit the speech which interested her. This is what Budwig did; she included in her materials a lab that was hard to get off, which she knew would elicit lots of demands for help. These are methods which have the eliciting intensity of experiments, but greater ecological validity and hence generalizability. In contrast, experimental methods too often violate children’s norms of use, for example using narrative clauses for future acts to be acted out.

We can also see that there are implications for analysis. As we have seen from the pronoun and auxiliary studies, variation which simply looks random may not be. An analyst who is satisfied with simply leaving the child with random variation will
miss a deeper analysis which arises if we treat the child's choices as functionally motivated. To do this, the analyst has to be open to evidence of units at other levels of language, and have rich enough data to permit such analysis.

In fact, if you want to describe the syntax of a twenty-two-month-old, you won't be successful if you don't have units like Question-Answer, because replies are structured so differently from initiations.

Now wait, you might say, I'm not going to use any units that aren't authorized by my favorite syntactic theory. That would be a wild grammar! There is a choice to make between accounting for all of your data and staying too rigidly within a theory that may not have been designed for the language of children. It is obvious when you look at natural data that children behave as if units exist that are not in some of the theories. There has been a strong argument made for continuity. Obviously one would opt for continuity in the face of ambiguity; but not when there is strong evidence to the contrary. The ultimate in continuity is to assume that children have the whole adult grammar; this clearly flies too much in the face of the facts for anyone studying children to stomach.

In fact, it was precisely because attention to these kinds of interactional units radically simplified the problem of analysis of early child speech that I started to do this type of analysis ten years ago. I realized it would be impossible to analyze syntactic development without first doing an analysis of the structures within which the syntactic options are chosen. This analysis brought out some remarkably clear data in the few cases where I had enough videotape evidence for some convincing analysis. It made clear, for example, the division between claiming, in utterances like "my doll," and boasting, as in "I build tower," "I draw a banana," and ostensives such as "That's a deer."

Does this work have any consequences for our notions of how language is learned? Perhaps what we find by broadening our data base is just contexts which allow performance to change. Bringing a wider range of contexts may just allow knowledge to be displayed.

We know that it is not possible to teach language divorced from meaning or context. Cases of impoverished social exposure have been shown by Meisel (1983) and others to lead to defective second language learning. These cases occur when immigrant workers are ostracized or isolated and have exposure to very limited language. Form without content is extremely difficult to learn.

In a disastrous applied experiment, Morton Rand (1970) thought he could accelerate the learning of Russian patterns by giving context-free words and utterances at first. The idea of this experiment was to build up knowledge of the sound system of Russian before introducing meanings. The effect was to irreparably retard learning. The subjects in the experiment never caught up with the control group.
One explanation is that the learners devised their own contexts which then interfered later. We know this happens because it also occurs in nonsense syllable research.

Child language is always learned in a context of action and interaction. Even though children of deaf parents have been exposed to television input, they do not learn spoken language from the television. It would be astonishing if children’s language did not code the features of that action and interaction system. These contexts motivate language learning and use. They can also be the basis for mediating the construction of many categories, thus serving as a kind of scaffold for form learning. It is precisely because children are very sensitive to formal features that they become so readily available for these coding processes.

But coding is not all that is at issue. There are two clues that speech act contexts may play a stronger role in acquisition. One is that at each stage of acquisition, functional subtypes seem to call for somewhat different formal structures. In the development of the modal, you will remember the child who had a burst of polite requests based on Can I and Could you. The argument then is that the trigger for noticing certain forms may be their density and importance in the achievement of particular conversational goals.

In examining the syntax of various speech acts in children, I have noticed that the prototypic cases differ remarkably. In fact there is very little overlap between the types. Claims for territory and objects call for possessives. Boasts call for verbs. Naming and ostensives may include demonstratives or locatives, but not verbs. The speech acts typical of two-year-olds like requests, refusals, prohibitions, acknowledgements, claims and boasts, have fairly predictable structure. Even some later forms like contradictions, replies, permission requests, intention announcements, and joint plans have a lot of common features. By five, we find more variability, in persuasion, joking, praise, and explanation.

We see the same thing in second language learning in children, that their first approach to conversational exchange draws heavily on restricted speech for certain speech acts. Why is this helpful to acquisition?

There are three reasons. One is that the social and activity context makes some meanings clear. This simplifies the problem of acquisition, as redundancies are always necessary at first.

The second reason is that the reduction in formal variability sometimes also occurs in interactional model language—especially when it comes from peers and siblings. Certain mappings are thus highlighted by the recurrence of forms. Alternation within repeated frames is a classic way to expand and to recognize new forms.

The third reason is that the learning of these production types makes it easy for children to get into interaction and to get more talk from comrades. Andersen and Kekelis (1986) have shown how crucial such sibling play routines are for the early
language learning of blind children, whose mothers produce a much too restricted range of speech acts.

My own videotaped data do not go back early enough to capture the onset of auxiliaries and pronouns, which are crucial to recent theories of early parameter acquisition as proposed by Nina Hyams (1986), for example. As I have shown, auxiliaries and pronouns both are profoundly involved in the expression of differences between demands and reports, negotiation and commitment. Detailed studies of the type done by Budwig and by Gerhardt, when applied to early triggering of pronoun use should be crucial for evaluating this theory.

An example of the power of these contexts is that in second language learning the restructuring of an optional pronoun system into an obligatory system in five year old Spanish speakers is very rapid. In the 18 texts I have examined of children who have spent 5 to 7 months in English speaking classrooms, I found no examples of missing subject pronouns in English speech by Mexican children, though there were missing copulas. Pronouns were learned early because they appeared in many formulaic constructions like "I dunno," and the telephone opener "What are you doing?"

So my advice to those who study syntax is to get a video camera and look at what is going on. And my advice to students of discourse is to see what morphological and syntactic clues children are using to mark the larger structures of their discourse.

REFERENCES


