

Observing Children's Language

THREE ASPECTS OF LANGUAGE ACQUISITION RESEARCH—Method, Description and Theory

I. Methodology (how we sample children's speech)

It is important to know the strengths and weaknesses of each method

1. Techniques of linguistic analysis developed for child language can be applied to adult language

How do we use child language to test linguistic theory?

2. What are appropriate measures? What should we measure?

A. Spontaneous language sampling

1. Strengths

a. Provides a general picture of all the child's linguistic abilities

b. May reveal unexpected or novel features of child language, including errors, omissions and overgeneralizations

c. Documents language environment (Input)

2. Weaknesses

a. Transcription and analysis of language samples is time-consuming

b. It is easy to miss rare constructions, e.g., passives, relative clauses

c. Variation between children requires more than one subject

3. It is useful to have your own experience with language sampling since:

a. Most theories of language acquisition rely on language samples

b. You can appreciate the difficulties involved in interpreting children's language samples

Demuth 'Collecting spontaneous production data' in McDaniel et al. (1996), Methods for Assessing Children's Syntax.

B. Parental diary—historically the first method

1. Strength—researcher is familiar with the child and the child's language

2. Weakness—tends to be unsystematic; sample from single child

C. Experimental approaches

Strength—Can collect a great deal of data on a targeted linguistic feature

Weakness—Does not collect data on related features, frequencies and context

D. Metalinguistic judgements

Strength—Can be applied directly to linguistic theory

Weakness—Children under six do poorly on such tests

E. Elicited imitation

Strength—Can collect data quickly on targeted linguistic features

Weakness—This method may fail to reveal the nature of the child's grammar

- c.f. Methods for Assessing Children's Syntax, McDaniel, McKee & Smith Cairns. 1996. MIT
Developmental Pragmatics, Ochs & Schieffelin. 1979. Academic Press

II. Description (what we know about language acquisition)

Canonical periods of language development:

1. Prelinguistic development—birth to first words
2. Single word utterances—around one to one and a half years
3. First word combinations—around one and a half years to two
4. Simple sentences—around two to three years
5. Complex sentences (embedded and coordinate structures)

III. Explanation (the theory of language acquisition)

1. Explanatory vs. descriptive 'theories'
2. What should an acquisition theory explain?
 - a. Why children, but not chimpanzees, acquire language (comparative biology)
 - b. How children acquire the entire range of human language types (comparative linguistics)
 - c. How children make use of the language they hear (positive evidence)
 - d. Stages of language development (prolonged or instantaneous)

IV. Limitations of current linguistic practice

1. The study of language development is usually limited to English
2. The methods, descriptions and theories are English-oriented
3. There is no assurance that these results extend to all other languages
4. Crosslinguistic comparison requires new theories and techniques

THE OBSERVATION OF CHILDREN'S LANGUAGE

I. Spontaneous language sampling

A. Subject selection

1. availability
2. volubility
3. intelligibility
4. language level (between 2;0 and 2;6 is best for the first time)

B. Recording

1. Equipment
 - i. There is a huge variety of video and audio recorders on the market. It is essential to test the quality of the audio recording before purchasing any equipment. Most video cameras for home use cannot be used with an external microphone. Digital recording formats are changing constantly so archiving recorded data has become more problematic than ever. Ferenc Bunta,

David Ingram and Kelly Ingram presented an excellent overview of recording technology at the meeting of the IX International Congress for the Study of Child Language in Madison. You can see a copy of their paper by clicking [here](#). I provide further information on my [Documenting Mayan Language Acquisition](#) webpage.

2. It's surprisingly easy to mess up a recording session

Check:

- i. recording volume
- ii. tape recorder—is it turned on; is it recording?
- iii. microphone placement—not near machines, running water, etc.
- iv. batteries

3. It is never possible to record too much contextual information

- i. It is best to have 2 observers—one to take notes while the other interacts with the child
- ii. Describe objects the child plays with, what the child points to, or looks at
- iii. Transcribe notes ASAP to remember contextual details

C. Schedule

1. first 15 minutes—set up time

- i. discuss with parent where to collect the sample (not near a tv!)
- ii. ask for the child's age and birthdate; get parent to sign consent form
- iii. make sure tape recorder is functioning properly
- iv. let child become used to your presence and the tape recorder

2. 30 minute sample

- i. interact naturally—don't panic if the child seems to be shy
- ii. usually allows enough time to collect a 200 to 300 utterance sample

3. final 15 minutes-debrief parent

- i. talk to parent about the child's language
- ii. how typical is the taped sample?

D. Interacting with the child, c.f., Jon Miller (1981) Assessing Language Production in Children

1. say very little at the onset

2. try parallel play with little talk

3. suggest topics that the child can build on

- i. 'I'm going to play with the ...' rather than 'What's that?'
- ii. 'Where is your mother, father, brother, sister?' 'What are they doing?'
- iii. 'Tell me about your pet.'
- iv. 'Where did you go this morning?'
- v. 'What do you do at the park?'

4. avoid limiting topics, i.e., questions with one-word answers, e.g.,

- i. 'Can you count to ten?'
- ii. 'What is that?' 'What color is that?'
- iii. routines, e.g., rhymes, books, abcs

II. Transcription

The most important part of the process, yet most neglected aspect of language sampling

A. Transcription tools

Tremendous progress has been made in devising transcription programs that work on personal computers. Two options are:

1. [SoundScriber](#)—This is a simple program that takes care of the basics
2. [ELAN](#)—This is a more sophisticated program that connects the transcription to video

B. Level of phonetic detail

1. orthographic ‘me play’
2. phonemic/orthographic ‘p(w)ay’
3. phonetic/orthographic ‘play’ [pwey]

Orthographic transcription is the most widely used, but phonetics can be useful in interpreting child’s utterance, e.g., [æɪfɑ] alligator or elephant?

[ɪzæʔ] vs. [zæt] ‘What’s that?’

C. Notation

Computer analysis makes notational conventions important

1. readability
 - a. proximity of related events
 - b. efficiency and compactness
2. consistency
3. SALT conventions (Miller & Chapman)
 - \$Child, Adult
 - +information line
 - <questionable utterance>
 - [morpheme code]
 - < > - unintelligible parts
 - = - comments/context notes

D. Coding, c.f., my minimal coding page

I use a technique of minimal coding for my project on Mayan language acquisition. I have posted a discussion of the [minimal coding technique](#) on my webpage.

E. Format

1. set up transcription format; note child’s age, transcriber, and the people, objects present
2. transcribe just the utterances of people talking to the child
3. use phonetic or orthographic transcription to show adult adjustments
4. do a phonetic transcription of the child’s utterances
5. set a limit to how often you will play each utterance, e.g., 3 times
6. an utterance is a vocalization separated by pauses
7. add an adult equivalence for each of the child’s utterances
8. add a separate tier for coding

F. number and identify child’s sentences

1. count stuttering or word repetitions as attempts to produce a single word

- 'I want cookie' [ay, ay, ay wan kʊkiy]
2. write a full morpheme for each partial phonetic production
'I eat cookie' [ay iy kiy]
 3. put three dots after
 - i. false starts 'I want ...' [ay wa]
 - ii. interruptions 'can I ...' [kænay]
 4. vertical nonequivalence—one sentence corresponds to more than one utterance
'I want ...' [ay wa]
'eat cookie' [i' kʊkiy]
 5. horizontal nonequivalence—more than one sentence corresponds to one utterance
'No.'/ [nonono]
'No'/
'No.'

Boundaries between child's sentences may not always be clear.

6. indicate which parts of the utterance are <questionable> or unintelligible < >.

Phonetic Correspondence Restriction—each morpheme in the interpretation should correspond to a separate phonetic sequence.

G. Context

1. add contextual notes
2. add broad interpretations 'I cookie' (= I ate the cookie')