

# Growing Language

## A workshop on language acquisition research from a generative perspective

Dr Benu Pareek & Yangchen Roy

Centre for Linguistics, SLL & CS, Jawaharlal Nehru University, New Delhi

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### I. Introduction to language acquisition research

1. A theory of language must be a fine balance between **flexibility** and **restrictiveness** (Chomsky 1965, Yang 2016)
  - (i) it must be flexible enough to account for the complexity in the structures found in the languages of the world
  - (ii) it must be restrictive enough to lead a child towards acquiring these complex structures within the first few years of their life
2. Starting point of generative approach to language acquisition:  
Chomsky's critical review of B. F. Skinner's Verbal Behaviour  
Stimulus – response – linguistic behaviour is a product of reinforcement
3. *"Language learning is not really something that the child does; it is something that happens to a child placed in an appropriate environment, much as the child's body grows and matures in a predetermined way when provided with appropriate nutrition and environmental stimulation."* - Chomsky, 1973
4. Chomsky (1957, 1959, 1965): The human linguistic capacity has the property of discrete infinity – linguistic competence – the ability to produce and comprehend an infinite number of sentences.  
*'colourless green ideas sleep furiously'* - Chomsky (1957)
5. "Plato's problem" or "the logical problem of language acquisition":  
The capacity to derive language specific rules from the limited input received from the environment, and the ability to apply them to produce as well as comprehend novel utterances.
6. Earliest language acquisition studies: Diary studies – parents/guardians keeping journals tracking their child's language development
  - Stern and Stern (1907): A biographical account of language and cognition of their children
  - Leopold, Werner (1939): Four volume diary of his daughter learning English & German
  - Melissa Bowerman's diaries of her 2 daughters' learning of English

^4;5(18) 1-2-75

<C, swings a chick on the end of a string attached to her new blouse, saying>

C: the chicky's getting swunged by his owner because  
the chickie asked to be swunged by his owner .

% PASS-BE PASS-GET

^4;5(18) 1-2-75

<After M says to F that in a few months C would be able to go to Andrea's house by herself, F says she would not be able to cross the street by herself:>

F: ..... cross the street by yourself

C: who would cross me the street ?

% NOVCAUS

Source: <https://chilides.talkbank.org/diaries/>

## 7. Longitudinal studies with audio recordings

- Example: Neil Smith (1973)
- Examples: as cited in Kidwai (2014)

CHILD: Nobody don't like me.  
MOTHER: No, say "Nobody likes me."  
CHILD: Nobody don't like me.  
(dialogue repeated eight times)  
MOTHER: Now, listen carefully, say "Nobody likes me."  
CHILD: Oh, nobody don't likes me.

DAUGHTER: Somebody's at the door.  
MOTHER: There is nobody at the door.  
DAUGHTER: There is yesbody at the door.

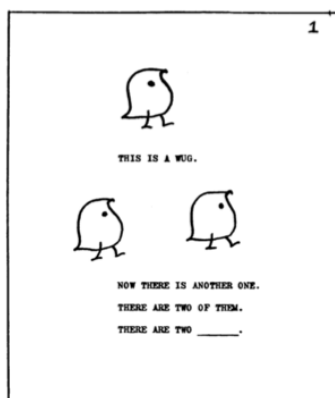
## 8. Cross-linguistic studies

*"It is natural that researchers are increasingly making reference to the role of other aspects of language and their connection to other aspects of the mind in the child's acquisition of grammar, but the mechanisms of the interface with, for instance, the intentional conceptual system remain obscure. It maybe that acquisition will reveal those interface mechanisms more directly than grammaticality judgments."*

- Jill

de Villiers & Tom Roeper (2011)

## 9. Example of early cross-linguistic studies: Wug test (Berko, 1958)



1. Plural. One bird-like animal, then two. "This is a wug /wag/. Now there is another one. There are two of them. There are two \_\_\_\_."

2. Plural. One bird, then two. "This is a gutch /gʌtʃ/. Now there is another one. There are two of them. There are two \_\_\_\_."

## 10. More recent cross-linguistic studies:

Agreement in Hindi and its Acquisition (Pareek, Kidwai & Eisenbeiss 2016)

(10)	*	raajaa	is	laRkii	-ko	khiinC	rahii	hE	(4;4)
		king	this	girl	-ACC.	pull	PROG.F.SG.	be-PRES.3P.	
The king is pulling this girl.									
(11)	*	raajaa		laRkii	-ko	gift	de	rahii	thaa
		king		girl	-ACC.	gift	give	PROG.F.SG.	be-PAST.3P.M.SG.
The king was giving a gift to the girl.									

## II. Introduction to data elicitation methods

- Elicitation of language production data (Eisenbeiss 2009, 2010, 2015, Pareek 2018)
  - Naturalistic samples/spontaneous speech
    - ☺ Age independent
    - ☺ Minimum interference, high ecological validity
    - ☺ Participant may be conversing with someone they are most comfortable with
    - ☺ Option to start/stop recording without notice
    - ☺ Data good for longitudinal study may be obtained for comparative analysis
    - ☹ Data may not always be comparable across participants
    - ☹ May not be representative of the full range of participant's linguistic development
    - ☹ Data may be insufficient for specific linguistic features under study
  - Semi-structured elicitation methods
    - ☺ May be designed for younger participants
    - ☺ Relative control over stimulus and conversation
    - ☺ Controlled input may be used with some intervention to produce the linguistic structure under study
    - ☺ Ensures production of comparable data of sizeable quantity
    - ☹ Researcher's involvement may create performance effects
    - ☹ Participant is conscious of being observed
    - ☹ Relatively lower ecological validity
  - Controlled production experiments
    - ☺ Control over stimuli, linguistic variables, and conversation to elicit responses closest to the linguistic phenomena under study
    - ☺ Elicitation of specific types of responses only, less 'noise'
    - ☺ Comparable data of low frequency linguistic phenomena may be elicited across participants
    - ☹ Difficult with younger participants
    - ☹ Requires some amount of priming/prompting by the researcher, thus lower ecological validity
    - ☹ Variation of priming by researcher may influence validity of data across participants

- ☹ May not be representative of the linguistic competence or knowledge of the participant
- 2. Testing for language comprehension
  - ☺ very target oriented, therefore no extra conversational material to annotate, analysis of the results is easier
  - ☺ can be done with very younger kids
  - ☹ can be unreliable at times (unless False tokens interspersed)
- Truth-value judgement task (TVJ) (Blume and Lust, 2017, p. 146)
  - dynamic type: the researcher acts out the interpretation of the sentence and the participant is asked if this is a true representation of the sentence they hear (say, the sentence is read by a puppet).
  - non-dynamic type: the child is shown a picture and is asked if it is a true interpretation of the sentence which is read out

*pre-determined interpretation of sentence provided to participant*
- Act-Out “Toy Moving” Task (Blume & Lust, 2017, p. 137)
  - the participant is given a set of toys/dolls and props. The researcher reads out a “little story”, which has the target sentences, and the child is expected to act-out the story by moving the toys or props around.

*interpretation of sentence given by the participant*
- Choice-Task
  - The sentence in question is read out to the child. The child is shown two pictures such that they differ minimally in the grammatical function being tested.

*interpretation of sentence given by the participant*

*Note: False pictures would have to be shown to check if the participant’s yes or no responses are veridical*

### III. Material/equipment for data elicitation

- Props: Toys, puppets, puzzles, picture cards
- E-material: Applications such as Explain Everything, OpenSesame (Mathôt et al., 2012)
- Recording equipment: Video and/or audio recorder
- Place/venue for conducting the task: home, school or language laboratory of university/institution
- Duration: each session fifteen to twenty minutes on an average, as children lose concentration after that.

### IV. Designing an experiment to study a grammatical function

For this workshop, the chosen grammatical feature(s) are maximality and familiarity

Q. How is maximality, familiarity, specificity and/or genericity encoded in the nominal domain of the language you are working on? Design a short experiment with two to three

tokens that will help determine if children have acquired these semantic features? Use Kidwai (2019) and Kidwai (2015a, and 2015b), emailed to you, to read up on these.

Prepare the following documents:

- (a) a task-execution script in the form of dialogues
- (b) a participant profile sheet
- (c) a short participant information sheet (for the parent) and an informed consent form

**Tips**

- Read up extensively on the grammatical phenomenon, in this case maximality.
- Decide which type of task you want to design: a comprehension task or a production task.
- List out nouns and verbs that a child would be familiar with, catering to your grammatical phenomenon.

#### **v. Ethical concerns of working with young participants**

- Approval from an Institutional ethical review board
- Participant Information Sheet + Parent/guardian/caretaker consent
  - Title of the project, the name(s) of the Principal Investigator(s), a brief description of the project, the procedures to be used, information about confidentiality
- Privacy of the participants
- Material/stimuli:
  - Age appropriate
  - Socially and culturally appropriate
  - Non-toxic/non-hazardous
- Tasks to be conducted in an environment conducive to the comfort and convenience of the participant and parent/guardian/caretaker
- Permission from the school, if conducted in the school premises
- Reward/incentive for the participant

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**Homework: Download and install ELAN** <https://tla.mpi.nl/tools/tla-tools/elan/>

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*More resources and useful links:*

<https://languagegamesforall.files.wordpress.com/2013/09/more-pictures-for-the-bag-task.pdf>

<https://languagegamesforall.wordpress.com/examples-of-games/bag-game/>

<https://www.explaineverything.com>