

Second Language Acquisition

Course script SS 2007
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1. L1 language acquisition

Babbling

Reduplicated babbling: dadadada
Variegated babbling: dabagidi

Categorical perception

- (1) English [ba] – [da]
Hindi [ta] – [ta]
Nthlakapmx [k'i] – [q'i]
- (2) [y] – [u] Tür – Tour

Segmentation of the speech stream

1. Phonological cues: stress, intonation, pauses

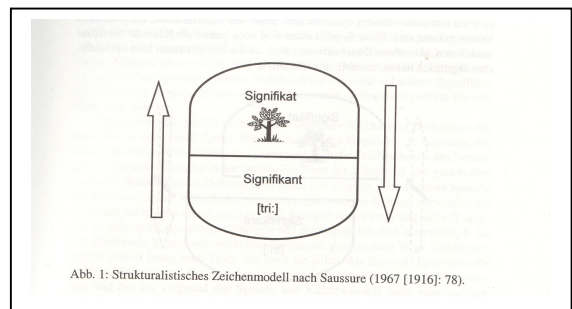
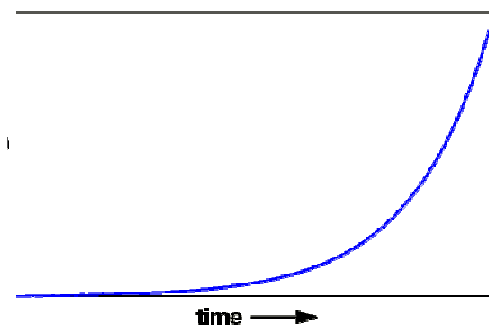
ADULT: What's that?
CHILD: That's a 'nana'.
 That's a 'raffe'.

2. Distributional cues: function words, distributional regularities

How do children acquire **their** native language? **My** research focuses on **the** kinds of learning abilities required to master **the** complexities of language. Three broad issues characterize **my** work. One line of research asks what kinds of learning emerge in

infancy. A second line of research probes **the** biases that shape human learning abilities, and **the** relationship between **these** biases and **the** structure of human languages. A third issue concerns **the** extent to which **the** learning abilities underlying **this** process are specifically tailored for language acquisition. Related research concerns infant music perception, and **the** relationship between music and language learning.

Lexical development



Grammatical development

More car.	1;11
More that.	2;0
More cookie.	2;0
More fish.	2;1
More jump.	2;1
More Peter water.	2;4
Block get-it.	2;3
Bottle get-it.	2;3
Mama get-it.	2;4
Towel get-it.	2;4
Dog get-it.	2;4
Books get-it.	2;5
Spoon back.	2;2
Tiger back.	2;3
Give back.	2;3
Ball back.	2;3
Want ball back.	2;4

More ___.
___ get-it.
___ back.

No bed.	1;11
No bread.	2;0
No eat.	2;2
No milk.	2;2
No apple juice.	2;5
Clock on there.	2;2
Up on there.	2;2
Hot in there.	2;2
Milk in there.	2;4
Water in there	2;5
All broke.	2;0
All buttened.	2;3
All clean.	2;4
All done.	2;4
All gone milk.	2;2
All gone shoe.	2;2
All gone juice.	2;2
Dat Daddy.	2;0
Dat's Weezer.	2;0
Dat my chair.	2;1
Dat's him.	2;1
Dat's a paper too.	2;4
That's too little for me.	2;9
Boot off.	2;0
Light off.	2;1
Hands off.	2;1
Pants off.	2;1
Hat off.	2;3

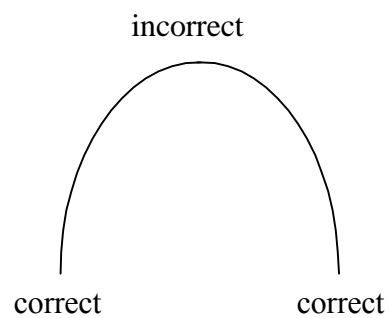
Errors

1. errors of omission
2. errors of commission

- (1) Run away. 1;11
Drink milk. 1;11
Touch duck. 2;0
Wanna apple. 2;0

- (2) Put __ in there. 1;11
Take __ away. 1;11
Push __ in there. 2;0
Kimmy do __. 2;1
Put __ on. 2;1

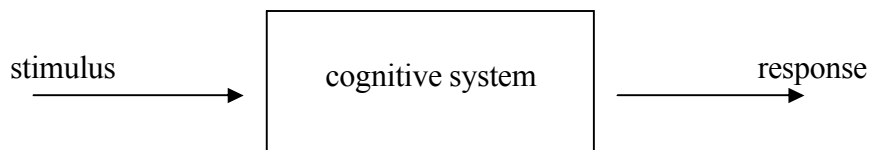
- (3) buy → buyed
hit → hitted
bring → bringed
go → goed (wented)
foot → foots (feets)
child(ren) → childrens



2. Error analysis and interlanguage

Contrastive analysis

Behaviorism: Learning is basically a process of *habit formation*. Habits emerge when an organism is repeatedly exposed to a particular stimulus and learns to respond to the stimuli in a particular way. Stimuli and response are linked by mental processes, but since these processes cannot be observed, they are not accessible to scientific research.



Learning is a cumulative process. The more knowledge and skills an individual acquires, the more likely it becomes that his new learning will be shaped by his past experiences and activities. An adult rarely, if ever, learns anything completely new; however, unfamiliar the task that confronts him, the information and habits he has built up in the past will be his point of departure. Thus transfer of training from old to new situations is part and parcel of most, if not all, learning. In this sense the study of transfer is coextensive with the investigation of learning.

[Postman 1971]

Since even languages as closely related as German and English differ significantly in the form, meaning and distribution of their grammatical structures, and since the learner tends to transfer the habits of his native language structure to the foreign language, we have here the major source of difficulty or ease in learning the structure of a foreign language. Those structures that are similar will be easy to learn because they will be transferred and may function satisfactorily in the foreign language. Those structures that are different will be difficult because when transferred they will not function satisfactorily in the foreign language and will therefore have to be changed.

[Lado 1957]

Two types of transfer:

1. positive transfer
2. negative transfer

Critique of contrastive analysis

- (1) a. Je vois Pascal et Jean.
I saw Pascal and Jean.
b. Je les vois.
I saw them.
- (2) I them saw. [does not occur]
- (3) a. *Je vois elle.
I see them.
b. Le chien a mangé les.
The dog has eaten them.
c. Il veut les encore.
He wants them still.

Error analysis

Pit Corder's (1967) *The significance of learner's errors*.

Corder argued that L2 researchers should not look at second language from a purely pedagogical perspective; rather, second language and the process of second language acquisition can be seen as a phenomenon of general linguistics and cognitive science.

Differences between contrastive analysis and error analysis:

1. The primary goal of contrastive analysis is pedagogical, the primary goal of error analysis is scientific.
2. Contrastive analysis emphasizes the importance of the input and inductive learning, whereas error analysis emphasizes more strongly the importance of general cognitive aspects of language acquisition and innate universal grammar.
3. Contrast analysis concentrates on interference errors, whereas error analysis emphasizes both the importance of interference errors and developmental errors.

Typology of learner errors

- Interlingual errors vs. intralingual errors
- Errors vs. mistakes
- Phonological errors, morphological errors, syntactic errors, etc.
- Omissions, additions, incorrect forms, ordering errors, blends

Example

One day an Indian gentleman, a snake charmer, arrived in England by plane. He was coming from Bombay with two pieces of luggage. The big of them contained a snake. A man and a little boy was watching him in the customs area. The man

said to the little boy: 'Go and speak with this gentleman'. When the little boy was speaking with the traveller, the thief took the big suitcase and went out quickly. When the victim saw that he cried 'Help me! Help me! A thief! A thief!' The policeman was in this corner whistle but it was too late. The two thieves escape with the big suitcase, took their car and went in the traffic. They passed near a zoo and stop in a forest. There they had a big surprise. The basket contain a big snake.

[French native speaker]

Interlanguage

Rod Ellis (1990) characterizes the interlanguage as follows:

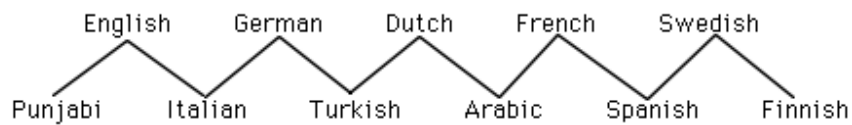
1. A learner's interlanguage knowledge constitutes a system.
2. A learner's interlanguage consists primarily of implicit linguistic knowledge.
3. A learner's language is permeable.
4. A learner's language is transitional.
5. A learner's language is variable.
6. A learner's language is the product of multiple interacting factors.
7. A learner's interlanguage may fossilize.

3. Methods of SLA research

Types of data

- Observational data
- Experimental data

The ESF database:



Acceptability judgments

- (1) The man Peter was talking to is my friend John.
- (2) *The man Peter was talking to him is my friend John.
- (3) ?The man who they think that when Mary marries **him** everyone will be happy.

Ranking task and magnitude estimation

- | | |
|-----------------------|------------------|
| (1) take into account | highly idiomatic |
| (2) take a ride | |
| (3) take this one | non-idiomatic |
- a. simple ranking
 - b. magnitude estimation

Elicited imitation

- (1) door at blue until the they peace
- (2) They talked to the man at the door.
- (3) There is the boy who played in the garden yesterday. SUBJ
- (4) This is the girl who the boy teased at school this morning. DO
- (5) There is the girl who Peter borrowed a football from. IO
- (6) This is the dog that the cat ran away from this morning. OBL
- (7) There is the woman whose horse Peter heard on the farm. GEN

- (8) The boy the girl kicked went home.
 (9) The girl kicked the boy very badly and then he went straight home.

Elicited transformation

Example: tag question

Sentence 1: He's going home...

Sentence 2: Isn't he?

Given: They'll take a long time...

Transformed: >>> Won't they?

Given: She can't stay with us ...

Transformed: >>> Can she?

Example: passive

Sentence 1: The man cleaned the bath.

Sentence 2: The bath was cleaned by the man.

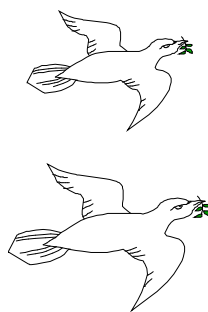
Given: The boy kissed the girl.

Transformed: >>> The boy was kissed by the girl.

Given: The boy kicked the ball.

Transformed: >>> The ball was kicked by the boy.

Sentence completion



This is a wug.
 Now there are two of them.
 There are two ... (rising intonation)?

Sentence construction task

Combine the following sentences, attaching B to sentence A, using the words *who*, *whom*, *which*, or *that*.

- (1) a. Joan likes the professor.
b. The professor gives easy exams to the class.
-> Joan likes the professor who/that gives easy exams to the class.
- (2) a. Janet rode the bicycle.
b. Your father gave the bicycle to Jim.
-> Janet rode the bicycle which/that your father gave to Jim.
- (3) a. The chairman listened to the student.
b. The professor gave a low grade to the student.
-> The chairman listened to the student who(m)/that the professor gave a low grade to.
-> The chairman listened to the student to whom the professor gave a low grade.

Truth-value judgments

- (1) a. John said that Bill hit himself.
b. John promised Bill to take care of himself.

Who does *himself* refer to?

- a. John
- b. Bill
- c. Either John or Bill
- d. Another person
- e. Don't know

Act-out

Example: passives

- (1) The dog pushes the cow.
- (2) The cow is pushed by the dog.

Example: acting-out of complex sentences

- (1) The duck pushed the chicken after it had kissed the dog.
- (2) The duck pushed the chicken before it had kissed the dog.

Picture pointing / description

Example: The cow is pushed by the dog.

- (1) Picture showing a cow feeding a dog.
- (2) Picture showing a cow pushing a dog.
- (3) Picture showing the described scene.

Consensus tasks

Mackey and Gass:

Ten individuals are stranded on an island, but only five can fit into a boat to get to the mainland. The ten participants are characterized by verbal description and participants have to come to an agreement about which five people should get into the boat.

Elicited narratives

- a. Tell me what you did yesterday.
- b. Tell me about a typical day.
- c. Tell me how you like to spend your free time.
- d. Tell me about the town where you live.
- e. Tell me your plans for the summer vacation.

Context: In the lobby of the university library. Jim and Charlie have agreed to meet at six o'clock to work on a joint project. Charlie arrives on time and Jim is half an hour late.

Charlie: I almost gave up on you.

Jim:

Charlie: Okay, let's start working.

Yesterday everything went badly. You were flying from Dayton Ohio to New York for a job interview. You were pleased because you were one of the final candidates. On your way to the airport there was a water main break and the highway was flooded, which caused a closure of the highway. You had to take back roads to the airport, but you arrived too late for the flight. You were going to call the personnel manager to tell her of your predicament, but you couldn't find a phone. Just then you realized that there was another plane to New York that would still get you there in time. You boarded the plane but because of storms in the New York area, your plane circled and circled the airport. When you landed, you were late for your appointment. The office was closed and you had to wait until the morning to talk to the personnel manager.

What will you say when you speak with her?

1. I would like to take this opportunity to apologize for missing the scheduled meeting. I'm sure I'll never let you down again.
2. I would like you to give me another chance.
3. I'm sorry that I didn't call earlier, but I was tired and so I slept late.
4. I really, really want to work in your company. I want to make a good use of my studies.
5. I sincerely apologize for not making the interview. Because of the storms, my plane circled the airport for over an hour and I couldn't call you. We didn't land until after 5:00. I would appreciate it if I could reschedule my interview.

Role play

There are two types of role plays: In open role plays participants are asked to play out the response to a relative undetermined situation. In closed role plays participants are asked to give a one-turn response to a highly constrained situation.

4. Research design

Independent and dependent variables

1. Grammaticality judgment task

Subjects are given two types of constructions and are asked to decide whether the given sentence is grammatical:

- | | | | |
|-----|----|-------------------------------------|----------------|
| (1) | a. | I gave him it. | Construction 1 |
| | b. | I gave her the book. | |
| | c. | ... | |
| (2) | a. | I gave to him it. | Construction 2 |
| | b. | I gave to her the note you sent me. | |
| | c. | ... | |

2. Sentence completion task

Subjects are asked to complete copular sentences with a relative clause. The predicate nominals of the copular clauses belong to three different semantic types: (1) animate/human (2) inanimate/object (3) place

- | | | |
|-----|----|-----------------------|
| (1) | a. | This is the man ___ |
| | b. | This is the ball ___ |
| | c. | This is the place ___ |

Types of data

1. Nominal/categorical data
2. Ordinal data
3. Interval data

Difference test vs. correlational analysis

1. Correlational analysis
2. Difference tests

Related vs. independent research designs

within subjects – related design – repeated measures design
between subjects – unrelated design – independent design

Experimental design

- (1) a. Das ist *der Mann*, **der** das Mädchen gestern gesehen hat. SUBJ
 b. Das ist *der Mann*, **den** das Mädchen gestern gesehen hat. OBJ
 c. Das ist *der Ball*, **der** das Mädchen am Kopf getroffen hat. SUBJ
 d. Das ist *der Ball*, **den** das Mädchen mit dem Kopf getroffen hat. OBJ

Table 1. Schematic token set

schematic token set		HEAD	
		animate	inanimate
REL	SUBJ	a (s+s)	b (s+b)
PRO	OBJ	c (b+s)	d (b+b)

Table 2. Concrete token sets

token set 1		HEAD	
		animate	non-animate
REL PRO	SUBJ	der Mann, der ...	der Ball, der ...
	OBJ	der Mann, den ...	der Ball, den ...

token set 2		HEAD	
		animate	non-animate
REL PRO	NOM	der Polizist, der ...	der Teppich, der ...
	ACC	der Polizist, den ...	der Teppich, den ...

token set 3		HEAD	
		animate	non-animate
REL PR	SUBJ	der Kerl, der ...	der Kuchen, der ...
O	OBJ	der Kerl, den ...	der Kuchen, den ...

token set 4		HEAD	
		animate	non-animate
REL PR	SUBJ	der Spieler, der ...	der Baum, der ...
O	OBJ	der Spieler, den ...	der Baum, den ...

Table 3. Complete list of test items

# (=number)	number of token sets	REL PRO	HEAD	experimental condition	stimulus
1	1	SUBJ	animate	a	<i>der Mann, der ...</i>
2	1	SUBJ	inanimate	b	<i>der Mann, den ...</i>
3	1	OBJ	animate	c	<i>der Ball, der ...</i>
4	1	OBJ	inanimate	d	<i>der Ball, den ...</i>
5	2	SUBJ	animate	a	<i>der Polizist, der ...</i>
6	2	SUBJ	inanimate	b	<i>der Polizist, den ...</i>
7	2	OBJ	animate	c	<i>der Teppich, der ...</i>
8	2	OBJ	inanimate	d	<i>der Teppich, den ...</i>
9	3	SUBJ	animate	a	<i>der Kerl, der ...</i>
10	3	SUBJ	inanimate	b	<i>der Kerl, den ...</i>
11	3	OBJ	animate	c	<i>der Kuchen, der ...</i>
12	3	OBJ	inanimate	d	<i>der Kuchen, den ...</i>
13	4	SUBJ	animate	a	<i>der Spieler, der ...</i>
14	4	SUBJ	inanimate	b	<i>der Spieler, den ...</i>
15	4	OBJ	animate	c	<i>der Baum, der ...</i>
16	4	OBJ	inanimate	d	<i>der Baum, den ...</i>

Table 4. Section of the final experimental design

# (=number)	number of token sets	REL PRO	HEAD	experimental condition	stimulus	randomizer
1	1	SUBJ	animate	a	<i>der Mann, der ...</i>	0,017871058
13	4	SUBJ	animate	a	<i>der Spieler, der ...</i>	0,12021337
41	filler 25	-	-	a	[...]	0,429620655
5	2	SUBJ	animate	a	<i>der Polizist, der ...</i>	0,462384624
45	filler 29	-	-	a	[...]	0,536353922
33	filler 17	-	-	a	[...]	0,563961285
9	3	SUBJ	animate	a	<i>der Kerl, der ...</i>	0,639759497
37	filler 21	-	-	a	[...]	0,648439236
21	filler 5	-	-	a	[...]	0,803529118
17	filler 1	-	-	a	[...]	0,804351424
25	filler 9	-	-	a	[...]	0,844548334
29	filler 13	-	-	a	[...]	0,899483715

Aufgabe

Erstellen sie das Experimentaldesign für eine Studie mit einem 2×3 Token Set (jeweils vier konkrete Token Sets für jede Variablenausprägung und 1,5 Mal so viele Distraktoren wie Testsätze).