

## SLA and Linguistics

## SLA draws on work in three related fields

- Linguistics
  - A focus on the product of learning a second language
- Psychology
  - A focus on the process of learning a second language
- Sociolinguistics
  - A focus on the social context in which a second language is learned

## SLA and Linguistics

- Linguistic theories attempt to answer two fundamental questions:
  1. Why are human languages structured in the way that they are?
  2. How do you explain the acquisition of human languages?

## Innate Linguistic Knowledge

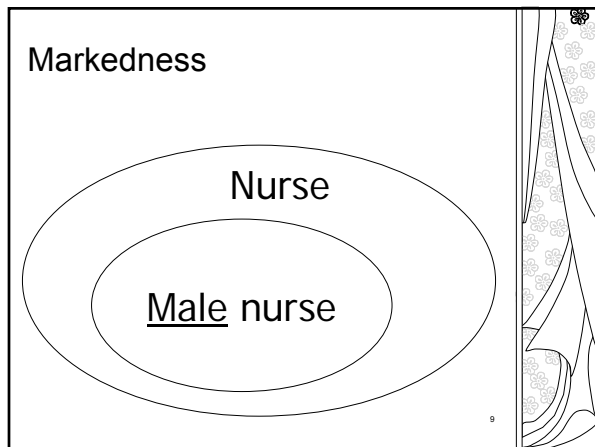
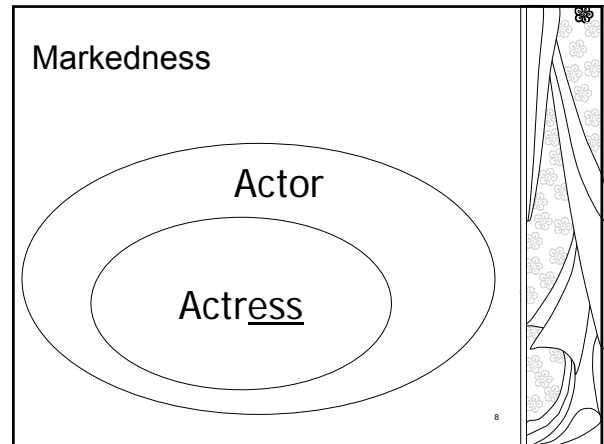
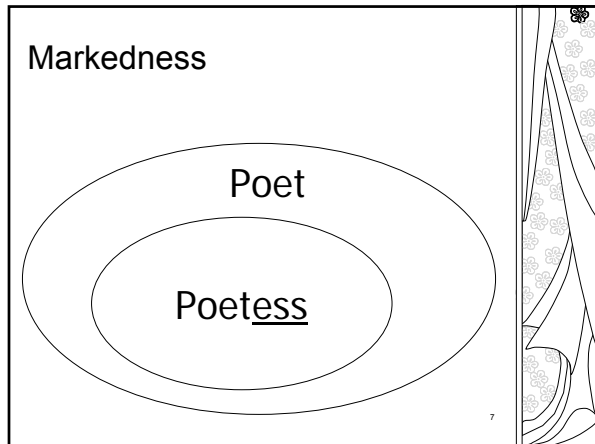
- General nativism
- Grammatical nativism
- Typological universals
- Universal Grammar

## SLA and Linguistics

- Underlying the Interlanguage Hypothesis is the idea that IL is a natural language. Therefore it is subject to the same constraints as natural languages.
- Universal constraints on natural languages are construed as typological (Chapter 6) or Universal Grammar (Chapter 7).

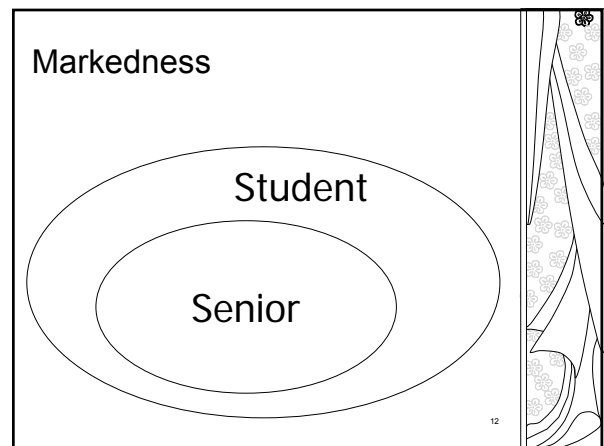
## Typological Universals

- Markedness
  - An asymmetrical relationship between two propositions
  - If the marked proposition is true, then the unmarked proposition is also true.
  - But if the unmarked proposition is true, nothing follows about the truth of the marked proposition.



- Identify the markedness relationships between these propositions
1. Leah is a poetess. / Leah is a poet.
  2. Hilary is a student. / Hilary is a junior.
  3. Jason lives in Madison. / Jason lives in Wisconsin.
  4. Leandro speaks Portuguese. / Leandro loves hot food.
  5. Makiko takes the bus to school. / Makiko doesn't walk to school.
  6. Richard went to Germany in September. / Richard changed planes at Amsterdam on his way to Germany.
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- Marked or unmarked?
- If Meredyth is a senior, then she must be a student.
  - If Meredyth is a student, then she may be a senior, but we don't know.
  - Meredyth is a senior is marked, and Meredyth is a student is unmarked.
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## Typological Universals

1. Voicing of Obstruents
2. The Noun Phrase Accessibility Hierarchy

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## Voicing of Obstruents

## Sonorants and Obstruents

- |                     |                        |
|---------------------|------------------------|
| ■ <b>Sonorants:</b> | ■ <b>Obstruents</b>    |
| ■ Vowels            | ■ Voiced fricatives    |
| ■ Glides            | ■ Voiceless fricatives |
| ■ Liquids           | ■ Voiced stops         |
| ■ Nasals            | ■ Voiceless stops      |
|                     | ■ /s/                  |

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## Voicing of Obstruents

- Imagine a word with consonants in three different positions. C = consonant. V = vowel.
- Initial Position: CV
- Medial Position: VCV
- Final Position: VC

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Identify the position of consonants in these words. Are they obstruents? Are they voiced?

- |             |            |
|-------------|------------|
| ■ Leah      | ■ Robin    |
| ■ Kathleen  | ■ Gabriel  |
| ■ Hilary    | ■ Shawn    |
| ■ Renee     | ■ Sarah    |
| ■ Jason     | ■ Michelle |
| ■ Christine | ■ Justin   |
| ■ Catherine | ■ Charles  |

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## Voicing of Obstruents

- Type A languages: CVCVC
- Languages which maintain a voice contrast between obstruents in initial, medial, and final positions
- Examples:
  - English, Arabic, Swedish

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## Voicing of Obstruents

- Type B languages: CVCVC
- Languages that maintain a voice contrast between obstruents in initial and medial positions but *not* in final position
- Examples:
  - German, Polish, Greek, Japanese, Catalan

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## Voicing of Obstruents

- Type C languages: CVCVC
- Languages that maintain a voice contrast between obstruents in initial position, but *not* in medial or final positions.
- Examples:
  - Corsican, Sardinian

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## Voicing of Obstruents

- Type D languages: CVCVC
- Languages that maintain no voice contrasts in initial, medial or final positions
- Example:
  - Korean

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## Markedness Differential Hypothesis

- L2 difficulty can be predicted on the basis of the markedness relationships that hold among the differences between the NL and TL.
- Those structures in the TL that are different and more marked than the corresponding structures in the NL will be difficult:
  - The degree of difficulty corresponds directly to the degree of markedness.
- Those structures that are different, but not more marked than the corresponding NL structures will not be more difficult.

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What is the difference  
between the MDH and the  
CAH?

The Markedness Differential Hypothesis

and

The Contrastive Analysis Hypothesis

## Predictions of the MDH

- Voiced obstruent  $\supset$  Voiceless obstruent
- Markedness hierarchy of voicing contrasts
- Final  $\supset$  Medial  $\supset$  Initial  $\supset$  None
- What predictions can be made about the relative learning difficulties for voiced obstruents?
  - NSs of English learning German
  - NSs of German learning English

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## Find the word-final voiced obstruents in English

■ Please call Stella. Ask her to bring these things with her from the store: Six spoons of fresh snow peas, five thick slabs of blue cheese, and maybe a snack for her brother Bob. We also need a small plastic snake and a big toy frog for the kids. She can scoop these things into three red bags, and we will go meet her Wednesday at the train station.

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## Here are the word-final voiced obstruents in English

■ Please call Stella. Ask her to bring these things with her from the store: Six spoons of fresh snow peas, five thick slabs of blue cheese, and maybe a snack for her brother Bob. We also need a small plastic snake and a big toy frog for the kids. She can scoop these things into three red bags, and we will go meet her Wednesday at the train station.

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## German L1 – English L2

[plɪs kɔl stɛlə æsk hɜ tʰu bɪŋ ðɪs θɪŋz wɪθ hɜ frɔm ðə stɔr sɪks spʊns ɔf frɛʃ snəʊ pi:z faɪf θɪk θɪk ɔf blu tʃɪz æn meɪbi ɛ snæk fɔr hɜ brʌðə bɔb wɪ əlzo nɪd ə smɔl plæstɪk snæk æn ə bɪk tʰu frɔk fɔr ðə kɪdz vɪ kʰɛn skup dɪs θɪŋz ɪntu θri æt bægz æn wɪ wɪl go mɪt hɜ wɛnsdeɪ æt ðə tɹeɪn steɪʃn]

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## Phonetic Alternations & Underlying Forms of Final Consonants

1. For these subjects (Spanish L1 and Mandarin Chinese L1), describe the phonetic alternations in these data.
2. What are the underlying forms that you would posit to account for these data?
3. Provide an interlanguage generalization to account for the data for each of these subjects

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## Phonetic Alternations & Underlying Forms of Final Consonants

### ■ L1 Spanish (from Venezuela)

[plɪs kɔl estɛlə æks hɜ tu brɪŋ dɪs θɪŋz wɪθ hɜ frɔm ðə stɔr sɪks espʊns ɔf frɛʃ snəʊ pi:z faɪf θɪk θɪk ɔf blu tʃɪz æn meɪbi ɛ snæk fɔr hɜ brʌðə bɔb wɪ əlzo nɪd ə smɔl plæstɪk ɛ snæk æn ə bɪk tʰu frɔk fɔr ðə kɪz ʃi kæn eskup ðɪs θɪŋz ɪntu θri rɛt bægz æn wɪ wɪl go mɪt hɜ wɛzdeɪ æt ðə tɹeɪn steɪʃn]

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## Phonetic Alternations & Underlying Forms of Final Consonants

### ■ L1 Mandarin Chinese (from Beijing)

[plɪ:s kɔlʰ stɛlə as xə tu bʰuŋ dɪs ʃɪ:nz vɪz hə frʰɔm stɔ:r sɪks spʰɔnʒ əspʰu:nz ɔvə frɛʃ snou pi:s faɪv ʃɪk slæ:ps ɔvə blu tʃi:s ænə meɪbi ɛ snæk fɔ xɜ brʌðə bɔ:b vi ɔlʰsou nɪðə smɔlʰ plæstɪx snæk ænd ə brɪð tɔ frɔ:g fɔ dɛ ki:s ʃi kæn skɜ: dɪs ʃɪns ɪntu θri rɛt bæ:gz ɛnɔ vi vil go mɪt xə wɛnsde: æt ðə tɹɛn steɪʃn]

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## The Noun Phrase Accessibility Hierarchy

## The NP Accessibility Hierarchy

- OComp  $\supset$  Gen  $\supset$  OPrep  $\supset$  IO  $\supset$  DO  $\supset$  SU
- English can relativize all positions in the hierarchy
  - SU [That's the man [who ran away].]
  - DO [That's the man [I saw yesterday].]
  - IO [That's the man [to whom I gave the letter].]
  - OPrep [That's the man [I was talking about].]
  - Genitive [That's the man [whose sister I know].]
  - OComp [That's the man [I am taller than].]

## Hierarchy of Pronominal Reflexes

- Inverse hierarchy of pronominal reflexes: SU  $\supset$  DO  $\supset$  IO  $\supset$  OPrep  $\supset$  Gen  $\supset$  OComp
- For example, if a language has pronominal reflexes in OPrep relatives, e.g. "That's the man I was talking about *him*", it will also have pronominal reflexes in genitive and object of comparison relative clauses.

## Find the relative clauses in these sentences

1. The girl who came late is my sister.
2. The girl Kate saw is my sister.
3. The girl who I wrote a letter to is my sister.
4. The girl who I sat next to is my sister.
5. The girl whose father died told me she was sad.
6. The girl who Kate is smarter than is my sister.

## Here are the relative clauses

1. The girl [who came late] is my sister.
2. The girl [Kate saw] is my sister.
3. The girl [who I wrote a letter to] is my sister.
4. The girl [who I sat next to] is my sister.
5. The girl [whose father died] told me she was sad.
6. The girl [who Kate is smarter than] is my sister.

## What is the syntactic function of the relative pronouns?

7. The dog that Zeke barks louder than lives across the pond.
8. The dog that barked belongs to my neighbor.
9. The dog that I gave a bone to wagged its tail.
10. The dog Lisa saw must have been a stray.
11. The dog whose owner put up the sign was found yesterday.
12. The dog that I ran over was killed instantly.

## The syntactic function of relative pronouns

7. The dog [that Zeke barks louder than] lives across the pond. OComp
8. The dog [that barked] belongs to my neighbor. SU
9. The dog [that I gave a bone to] wagged its tail. IO
10. The dog [Lisa saw] must have been a stray. DO
11. The dog [whose owner put up the sign] was found yesterday. GEN
12. The dog [that I tried to talk to] growled at me. OPrep

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## Relative Clauses

Identify the relative clauses in the following languages. On the basis of the NPAH, what predictions can you make about other kinds of relative clauses in the same language?

13. English: The guy who you were walking faster than took a short cut to get here before you.
14. Hindi: Which boy dog hit he my brother is  
(*The boy who hit the dog is my brother*)

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## Relative Clauses

English does not have pronominal reflexes, but many languages do. Insert pronominal reflexes in these sentences.

15. That's the anorak that needs repair.
16. They'll bring down the woman who we arrested yesterday.
17. She's the lady we sent the slippers to at Christmas.
18. That's the hill that I have to walk up every day.
19. The child whose arm he held was not his son.
20. Those are the eyes that the face seems older than.

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## Pronominal reflexes

15. That's the anorak [that it needs repair].
16. They'll bring down the woman [who we arrested her yesterday].
17. She's the lady [we sent the slippers to her] at Christmas.
18. That's the hill [that I have to walk up it] every day.
19. The child [whose its arm he held] was not his son.
20. Those are the eyes [that the face seems older than them].

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## Gass (1979)'s Research Question

- How to explain relative clause formation in English interlanguage?
  - Transfer from learners' native language
  - or
  - Language universals that are independent of learners' native language

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## Gass's subjects

- Subjects
  - 17 high intermediate and advanced adults learners of English as a second language
- Native languages
  - Arabic, Chinese, French, Italian, Korean, Persian, Portuguese, Japanese, Thai.

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### Gass's variables

	English	French
Relative marker	Variable	Variable
SU	Yes	Yes
DO	Yes	Yes
IO	Yes	Yes
OPrep	Yes	Yes
GEN	Yes	Yes
OComp	Yes	<b>No</b>
Pron reflex	No	No

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### Gass's variables

	English	Portuguese
Relative marker	Variable	Variable
SU	Yes	Yes
DO	Yes	Yes
IO	Yes	Yes
OPrep	Yes	Yes
GEN	Yes	Yes
OComp	Yes	No
Pron reflex	No	No

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### Gass's variables

	English	Italian
Relative marker	Variable	Variable
SU	Yes	Yes
DO	Yes	Yes
IO	Yes	Yes
OPrep	Yes	Yes
GEN	Yes	Yes
OComp	Yes	No
Pron reflex	No	No

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### Gass's variables

	English	Arabic
Relative marker	Variable	Invariable
SU	Yes	Yes
DO	Yes	Yes
IO	Yes	Yes
OPrep	Yes	Yes
GEN	Yes	Yes
OComp	Yes	Yes
Pron reflex	No	Yes

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### Gass's variables

	English	Persian
Relative marker	Variable	<b>Invariable</b>
SU	Yes	Yes
DO	Yes	Yes
IO	Yes	Yes
OPrep	Yes	Yes
GEN	Yes	Yes
OComp	Yes	<b>No</b>
Pron reflex	No	<b>Yes</b>

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### Gass's variables

	English	Thai
Relative marker	Variable	Invariable
SU	Yes	Yes
DO	Yes	Yes
IO	Yes	Yes
OPrep	Yes	No
GEN	Yes	No
OComp	Yes	No
Pron reflex	No	No

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### Gass's variables

	English	Chinese
Relative marker	Variable	Invariable
SU	Yes	Yes
DO	Yes	Yes
IO	Yes	Yes
OPrep	Yes	Yes
GEN	Yes	Yes
OComp	Yes	No
Pron reflex	No	Yes

### Gass's variables

	English	Korean
Relative marker	Variable	<b>Invariable</b>
SU	Yes	Yes
DO	Yes	Yes
IO	Yes	Yes
OPrep	Yes	Yes
GEN	Yes	Yes
OComp	Yes	<b>No</b>
Pron reflex	No	<b>Optional</b>

### Gass's variables

	English	Japanese
Relative marker	Variable	<b>Not used</b>
SU	Yes	Yes
DO	Yes	Yes
IO	Yes	Yes
OPrep	Yes	Yes
GEN	Yes	Yes
OComp	Yes	<b>No</b>
Pron reflex	No	<b>Optional</b>

- ### Gass's Tasks
- Task A (receptive)
    - Acceptability judgments (a receptive task) of 29 English sentences containing a relative clause, 13 well-formed, 16 ill-formed
  - Task B (productive)
    - 12 pairs of written sentences to be combined in order to form a single sentence containing a relative clause.  
Ex., The girl ran home. I saw the girl. → The girl that I saw ran home.
  - Each subject did both tasks six times over a four-month period. The lexical items differed each time but the syntactic structures remained the same.

- ### Gass's Method
- In order to test whether transfer or the language universal influenced each of the variables in the study, subjects were divided into two language groups.
    - Subjects in Group 1 had the variable in their native language.
    - Subjects in Group 2 did not.
    - In investigating different variables, the membership of the two groups changed.

### Results on the Receptive Task

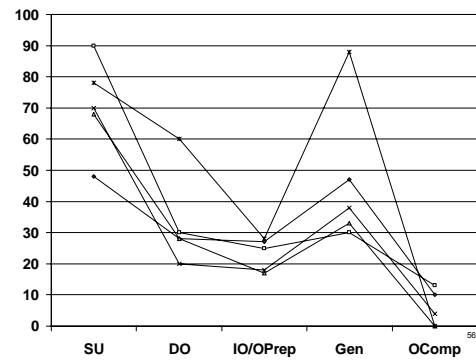
Pronominal reflex	Group 1	Group 2
SU	Greater	Less
DO	Greater	Less
IO	Greater	Less
GEN	No difference	
OComp	No difference	
Relative marker	No difference	

## Results on the Productive Task

Pronominal reflex	Group 1	Group 2
SU	No difference	
DO	Greater	Less
IO and OPrep	Greater	Less
GEN	No difference	
OComp	No difference	
Relative marker	No difference	

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## Percentage of Sentences Correct



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## Gass's conclusion

- In considering the relationship between native language facts and language universals, language universals were found to play the leading role in this study since they were dominant both in assigning relative orders of difficulty and in determining where language transfer occurs.
- Is this conclusion justified? How can you explain the anomalous behavior of genitives?

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