

- **L1 versus L2 acquisition**
- **Acquisition: Evidence for UG?**

Background reading:

- CL Ch 9, §6
- CL Ch 10, §1

0. Course information

- Exam #2 will probably not be returned in recitation this week (make-up exams are in progress)
 - Reminder: Exams #1 and #2 will be **weighted** in the final course grade so that the better exam will count twice as much

0. Course information

- We are moving into the third part of the course
 - First vs. second language acquisition
 - Language use in context
 - Meaning: semantics and pragmatics
 - Language, society, identity: sociolinguistics
 - Historical language change
- Recurring theme: How does understanding phonetics, phonology, morphology, syntax help us understand these additional aspects of language?

1. Review and context

- **First-language (L1) acquisition** is a process in which a child **develops a mental grammar** (and a lexicon)
- We have said that this process is different from learning a skill — now we will look at why
 - L1 acquisition is **not** just imitation
 - L1 is **not** “taught” by parents
 - L1 acquisition appears to have a **critical period**
 - L1 acquisition even seems to be different from L2 acquisition

1. Review and context

Today we will consider:

What role do these factors play in L1 acquisition?

- The following types of **parent/child interaction**
 - Imitation
 - Feedback / “correction” by adults
 - Caregiver speech (“motherese”)
 - **General cognitive development**
- We conclude that *neither* of these are a general explanation for L1 acquisition

1. Review and context

Today we will consider:

- Does L1 acquisition provide **evidence** for **innate Universal Grammar (UG)**?
- How is L2 acquisition different from L1 acquisition?

2. L1 acquisition — not just “taught”

- Some people assume that children simply learn language by **imitating** adult speakers
 - Sometimes a child can imitate more accurately than they generally speak
- However, imitation is far from the only process involved in language acquisition
 - What characteristics of language are **incompatible** with the imitation hypothesis?
 - What often happens when a child is explicitly **encouraged** to imitate?

2. L1 acquisition — not just “taught”

- What characteristics of language are **incompatible** with the imitation hypothesis? Why?
 - **Creativity/productivity** of language
 - Morphological **overgeneralization** and other child-specific linguistic rules

2. L1 acquisition — not just “taught”

- What characteristics of language are **incompatible** with the imitation hypothesis? Why?
 - **Creativity/productivity** of language
 - How can a child be “imitating” if producing something they have never heard?
 - Morphological **overgeneralization** and other child-specific linguistic rules
 - *goed, bringed*: What would the child be “imitating”?

2. L1 acquisition — not just “taught”

- **What often happens** when child asked to imitate?

Parent: *Why can't kitty stand up?*

Child: *Why kitty can't stand up?* (CL, p 378)

2. L1 acquisition — not just “taught”

- **What often happens** when child asked to imitate?

Parent: *Why can't kitty stand up?*

Child: *Why kitty can't stand up?* (CL, p 378)

- A child is often **unable to imitate** linguistic structures that their mental grammar isn't yet ready for

2. L1 acquisition — not just “taught”

- Some people assume that parents teach language to children by **correcting their errors**
 - Do children learn from **direct correction** by caregivers?
 - Do children learn from **recasts** (repeating child’s utterance with readjustment)?

2. L1 acquisition — not just “taught”

- Children often “ignore” (or, their mental grammars can’t interpret) **direct correction**

Child: Want other one spoon, Daddy. (CL, pp 378-379)

Father: You mean, you want the other spoon.

Child: Yes, I want other one spoon, please Daddy.

Father: Can you say “the other spoon”?

Child: other...one...spoon.

Father: Say “other.”

Child: other.

Father: “spoon.”

Child: spoon.

Father: “other spoon.”

Child: other...spoon. Now give me other one spoon?

2. L1 acquisition — not just “taught”

- When are **recasts** used? Do they help the child identify non-adult-like utterances?
 - i. Child: Boy chasing dog.
Parent: Yes, the boy is chasing the dog.*
 - ii. Child: The dog is barking.
Parent: Yes, the dog is barking at the kitty.*

2. L1 acquisition — not just “taught”

- When are **recasts** used? Do they help the child identify non-adult-like utterances?
 - i. Child: Boy chasing dog.
Parent: Yes, the boy is chasing the dog.*
 - ii. Child: The dog is barking.
Parent: Yes, the dog is barking at the kitty.*
- The response in (i) is an actual correction
- The response in (ii) is just adding information
- Would a child be able to tell the difference?

2. L1 acquisition — not just “taught”

- When are **recasts** used? Do they help the child identify non-adult-like utterances?

iii. Child: Mama isn't boy; he's a girl!

Parent: That's right.

2. L1 acquisition — not just “taught”

- When are **recasts** used? Do they help the child identify non-adult-like utterances?

iii. Child: Mama isn't boy; he's a girl!

Parent: That's right.

- In this example, the parent is responding to the **content** of the child's utterance, not the linguistic **structure**

2. L1 acquisition — not just “taught”

- When parents “correct” their children, it’s more likely to be about the **truth** of their utterances than phonology/morphology/syntax
- Even recasts do **not** always serve as a cue for non-adult-like utterances
 - Sometimes they just expand an utterance with additional, optional information

2. L1 acquisition — not just “taught”

- BUT! Is there a **link** between **recasts** and acquisition? Two experiments:
 - No? → Recasts had no effect in a study of the acquisition of determiners *a, the*
 - Yes? → A single recast was often enough to permit learning the irregular past tense of a novel (made-up) verb
- Can a **principled difference** between these two recast examples explain the different results?

2. L1 acquisition — not just “taught”

- Can a **principled difference** between these two recast examples explain the different results?
 - Learning when/where to use determiners is mostly a matter for the...
 - Learning the irregular past tense of a new verb is mostly a matter for the...

2. L1 acquisition — not just “taught”

- Can a **principled difference** between these two recast examples explain the different results?
 - Learning when/where to use determiners is mostly a matter for the **mental grammar**
 - A general system (NP) must be developed
 - Learning the irregular past tense of a new verb is mostly a matter for the **lexicon**
 - Unpredictable information needs to be memorized and stored

2. L1 acquisition — not just “taught”

- In many (not all!) cultures, adults use a special speech style with young children, known as **caregiver speech** (also called **infant-directed/child-directed speech**, “motherese”)
- Some characteristics of caregiver speech by middle-class English-speaking caregivers (see Table 9.22 on p 377 of *CL* for more)
 - slower speech
 - tendency to refer to “the here and now”
- How might these aspects of caregiver speech be helpful in acquisition?

2. L1 acquisition — not just “taught”

- How might these aspects of caregiver speech be helpful in acquisition?
 - Slower speech → **phonological acquisition** ?
 - Tendency to refer to “the here and now” → **semantic acquisition** ?
- But, many aspects of caregiver speech do *not* seem to affect acquisition
 - We saw earlier that **relative frequency** of grammatical morphemes (inflectional affixes and function words) does *not* predict **acquisition order**

3. L1 acq — not just cognitive development

- Another factor that does not fully explain L1 acquisition is **general cognitive development**
- There are some possible correlations
- But: Evidence that language and cognitive development are at least partly **independent**
 - Language can be intact while cognition is impaired
 - Cognitive function can be normal while mental grammar is impaired

4. So...What makes L1 acquisition possible?

- None of these influences are a **general** explanation for L1 acquisition (though they may contribute in certain specific ways):
 - Imitation
 - Feedback / “correction” by adults
 - Caregiver speech
 - General cognitive development
- Next, we will consider:
Does L1 acquisition provide any **evidence** for **innate Universal Grammar (UG)**? (Is language acquisition partly **biological**?)

4. So...What makes L1 acquisition possible?

- **Universal Grammar (UG):** “The set of inborn categories, operations, and principles common to all human languages” (*CL*, p 381)
- Does L1 acquisition provide **evidence** for **innate UG**? Two important arguments (controversial):
 - The “**poverty of the stimulus**” argument
 - Basically, this is the idea that some aspects of the mental grammar of a language could not have been learned from language data in the child’s environment alone
 - Evidence for a **critical period**

5. A critical period in L1 acquisition?

- Some linguists argue that there is evidence for innate UG as a “language instinct” because first-language acquisition has a **critical period**
- A **critical period** is a time period during which exposure to stimuli is particularly important (or even crucially necessary) for complete development
 - some types of bird song
 - barn owls coordinating vision and hearing
 - celestial navigation by indigo buntings
 - ...human language?

5. A critical period in L1 acquisition?

- Evidence from humans who are **deprived of language input** seem to show that the ability to acquire a native language...
 - begins to decline around age 6
 - is severely impaired after puberty

5. A critical period in L1 acquisition?

- “Genie”: essentially no language input or human interaction until 13
- After therapy:
 - (a) Lexical abilities (vocabulary) “good”
 - (b) Syntax — Examples:
 - Applesauce buy store.*
 - Man motorcycle have.*
 - Genie have full stomach.*
- Can we identify similarities and differences with stages of typically developing syntax?

5. A critical period in L1 acquisition?

- “Chelsea”: deaf, but mistakenly thought to be mentally impaired; no language input until age 31
- After therapy:
 - (a) Vocabulary size: 2000 words
 - (b) Syntax — Examples:
 - The woman is bus the going.*
 - The girl is gone the ice cream buying shopping the man.*
- Can we identify similarities and differences with stages of typically developing syntax?

5. A critical period in L1 acquisition?

- Language data from “Genie,” “Chelsea”
 - Question: What would happen if a child had no language input but completely normal social interaction? (obviously not ethical to carry out an experiment...)
- Still, the evidence does seem to show that there is a critical period for fully acquiring a native language

5. A critical period in L1 acquisition?

- Is there a critical period for second (and later) language learning, for people who did acquire a first language normally?
- We will first look at L2 acquisition in general, and then return to this question

6. Overview: Second-language acquisition

- Research in second-language acquisition (SLA, L2 acquisition): (CL, p 389)
 - “investigates how people attain proficiency in a language that is not their mother tongue”
- CL classifies **all** non-native languages as ‘**second**’
 - But: Some researchers further distinguish L2 from L3 and additional languages
- L2 acquisition can lead to **(sequential) bilingualism**
 - Potentially distinct from *simultaneous* bilingualism (two native languages)

6. Overview: Second-language acquisition

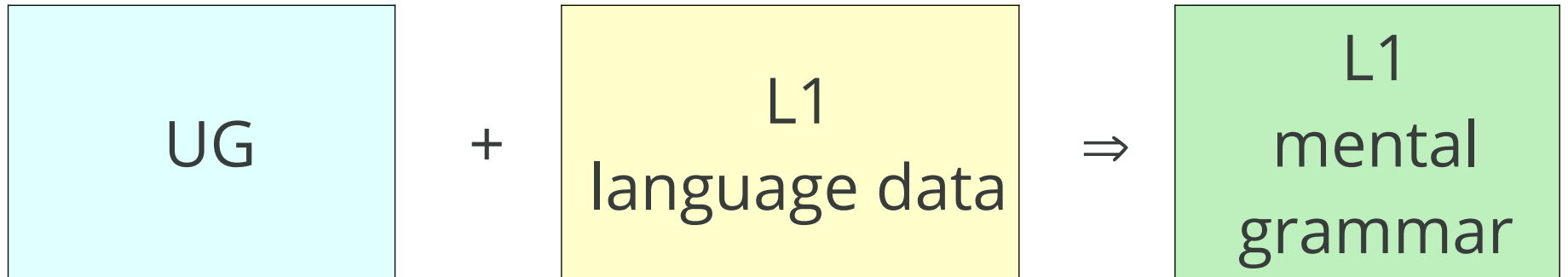
- Why do research on L2 acquisition?
 - Better **methods** for teaching/learning L2
 - Insight into (guess what...) human **mental grammar**
- If we look at the 'errors' that L2 learners make, we can potentially learn about...
 - the mental grammar of the relevant L1
 - the mental grammar of the relevant L2
 - Universal Grammar

7. L1, L2, and interlanguage

- As in L1 acquisition, speakers in L2 acquisition go through **stages** of development
 - At each stage, they have a different mental grammar
- Stages distinct from the target L2 grammar are called **interlanguage (IL)**
 - What is IL influenced by?
 - How is this different from child-specific grammars in L1 acquisition?

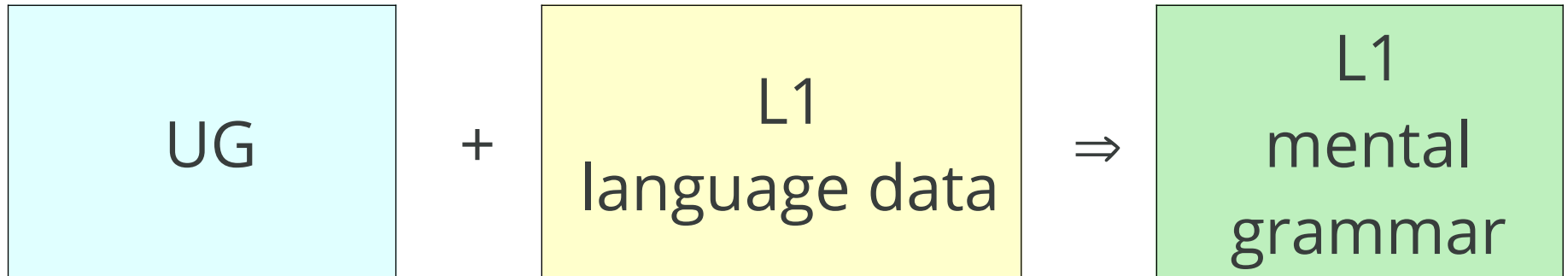
7. L1, L2, and interlanguage

- L1 acquisition:

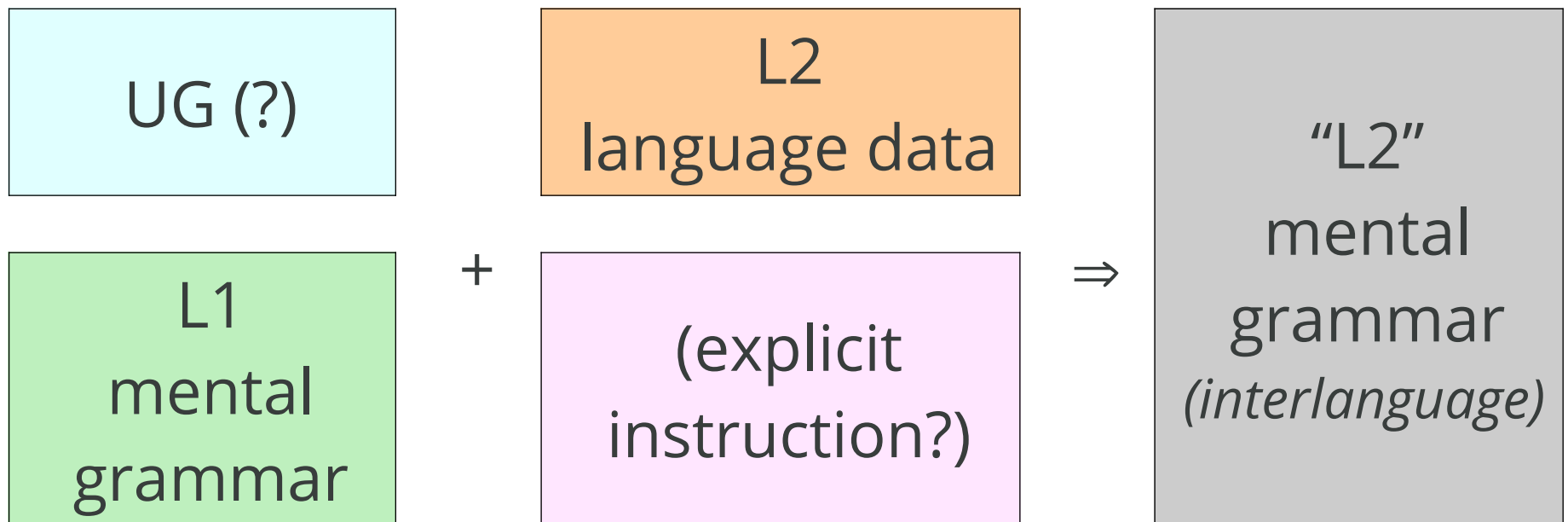


7. L1, L2, and interlanguage

- L1 acquisition:



- L2 acquisition:



7. L1, L2, and interlanguage

- Interlanguage grammar is influenced by:
 - **exposure to L2 data**
- AND ALSO
- the **existing L1 grammar**
- May also be influenced by UG directly (rather than just via $UG \Rightarrow L1$)
 - Research question: Is there evidence for UG as 'default settings' in interlanguage grammars?
 - This would be: non-L2 characteristics that are *not* caused by the L1 grammar

7. L1, L2, and interlanguage

- **Transfer:** “the process whereby a feature or a rule from a learner’s first language is carried over to the IL grammar” (*CL*, p 391)
 - Transfer = evidence for mental grammar!
 - Includes phonology, morphology, syntax, etc.
- Example: English L1 speakers usually add **aspiration** to voiceless stops in L2 Spanish
 - Why would they do this? Voiceless stops [p t k] are not aspirated in Spanish!

7. L1, L2, and interlanguage

- Example: English L1 speakers usually add **aspiration** to voiceless stops in L2 Spanish
 - Why would they do this? Voiceless stops [p t k] are not aspirated in Spanish!
 - **Caused by the aspiration rule—a phonological rule of *English*—being applied in L2 Spanish**
- Many recordings of L2 English available from the [Speech Accent Archive](#) (George Mason University)
 - Examples of transfer of L1 phonology to interlanguage English

7. L1, L2, and interlanguage

- Here are some examples of IL in L2 English **beyond phonology** (*CL*, Table 10.4, p 392)

Table 10.4 Types of errors found in the acquisition of English

<i>L1</i>	<i>Example</i>	<i>Error type</i>	<i>Comment</i>
Spanish	My wife is <u>embarrassed</u> . (meaning 'pregnant')		Spanish <i>embarazada</i> = 'pregnant'
Various	I live in a two bedroom <u>department</u> .		Sometimes the wrong word can be chosen.
Various	I <u>didn't took</u> the car.		English doesn't mark the past tense on both auxiliary and main verbs.
Various	She <u>get ups</u> late.		The speaker adds the agreement marker to the particle, not the verb.
French	He <u>drinks frequently</u> beer.		French places the main verb before the adverb.
Various	There's the man that I saw <u>him</u> .		Some languages (e.g., Arabic, Turkish) allow pronouns in this position in a relative clause.

- What types of errors are these?

7. L1, L2, and interlanguage

- Here are some examples of IL in L2 English **beyond phonology** (CL, Table 10.4, p 392)

Table 10.4 Types of errors found in the acquisition of English

<i>L1</i>	<i>Example</i>	<i>Error type</i>	<i>Comment</i>
Spanish	My wife is <u>embarrassed</u> . (meaning 'pregnant')	lexical	Spanish <i>embarazada</i> = 'pregnant'
Various	I live in a two bedroom <u>department</u> .	lexical	Sometimes the wrong word can be chosen.
Various	I <u>didn't</u> took the car.	morphological	English doesn't mark the past tense on both auxiliary and main verbs.
Various	She <u>get ups</u> late.	morphological	The speaker adds the agreement marker to the particle, not the verb.
French	He <u>drinks frequently</u> beer.	syntactic	French places the main verb before the adverb.
Various	There's the man that I saw <u>him</u> .	syntactic	Some languages (e.g., Arabic, Turkish) allow pronouns in this position in a relative clause.

8. How 'native' can an L2 become?

- An interlanguage grammar that has stopped changing (before it gets to the target L2 grammar) is said to have **fossilized**
 - Some fossilized interlanguages can be quite different from the target L2 grammar
- There is evidence that L2 learners can never *completely* attain the target L2 grammar
 - Experiments show that even L2 speakers who appear indistinguishable from native speakers don't have *exactly* the same mental grammar

8. How 'native' can an L2 become?

- Why don't L2 speakers become fully 'native'?
 - Effect of a **critical period** for L2 acquisition?
 - Gradual effect of **age of acquisition**?
 - Effect of already having an **L1 grammar**?
 - **Social/cultural** factors?
- Possibly **all** of these factors are involved
 - Related point: It's hard to *prove* there is a critical period for L2, because of these other factors
- On the bright side: It is nevertheless possible to become a '**near-native**' L2 speaker!