

LSci 51/CogS 56L: Acquisition of Language

Lecture 1 Introduction

Administrivia

Instructor:

Professor Lisa Pearl, Department of Language Science

lpearl@uci.edu

<http://www.socsci.uci.edu/~lpearl>

Office Hours: **T Th 2:15-2:45pm** over Zoom

(see Canvas for office hours Zoom link)



Administrivia

Teaching Assistants (*all office hour Zoom links available on Canvas*)



Moldir Baidildinova

Department of Language Science

mbaidild@uci.edu

Office hours: MWF 3-3:50pm, starting 9/29

Shiva Upadhye

Department of Language Science

shiva.upadhye@uci.edu

Office hours: TBD



Ryan Chen

Department of Language Science

ryanc15@uci.edu

Office hours: T Th 3-4:30pm

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Discussion board (accessible via the website and Canvas)

https://canvas.eee.uci.edu/courses/74487/discussion_topics

Used to facilitate communication about the course administrivia and content. Also has Zoom links for live class sessions and office hours.

Please go there first to see if someone has already asked your question before emailing the TAs or professor. It may be that your question is already answered there, and this will allow you to get a quicker response to your question.

Fall 2020

Home

Syllabus

Announcements

Discussions

▼ Pinned Discussions

The Zoom class information

Administrivia

Class web page:

http://www.socsci.uci.edu/~lpearl/courses/acqoflang1_2025fall/index.html

Accessible from Canvas, as well. Contains overview, [schedule](#), readings, course assignment descriptions, and grading policies.

Home	Schedule	Readings	Assignments	Grading
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LSci 51/CogS 56L: Schedule

This is our wonderful schedule. We usually keep to it, but it is subject to modification.

Administrivia

Reference readings will primarily be from book excerpts, articles, and video links — they can be found on the schedule page for each session's content

Date	Topic	Notices & Assignments	Reference Material
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Administrivia

Assignments

Homework:

Several throughout the quarter, available through Canvas as untimed “Quizzes”. Collaboration is allowed and **highly encouraged**. In fact, take a minute to introduce yourself to some people in class who you might **form a homework/study group** with.

(Use the Zoom breakout rooms to make a few new homework friends!)

However, you must turn in your own copy of the assignment.

Administrivia

Assignments

Homework:

Several throughout the quarter, available through Canvas as untimed “Quizzes”. Collaboration is allowed and **highly encouraged**. In fact, take a minute to introduce yourself to some people in class who you might **form a homework/study group** with.

Please note that **working together (that is, collaborating) is different than copying someone else's answers. If someone pressures you to let them copy your answers, this is academic dishonesty on their part.**

You shouldn't feel ashamed or guilty about saying no to them -- after all, why should they get credit for your hard work and effort? Instead, they should be ashamed for even asking you in the first place.

Please report any academic dishonesty incidents to Professor Pearl, and appropriate action will be taken.

Administrivia

Assignments

Homework:

Several throughout the quarter, available through Canvas as untimed “Quizzes”. Collaboration is allowed and **highly encouraged**. In fact, take a minute to introduce yourself to some people in class who you might **form a homework/study group** with.

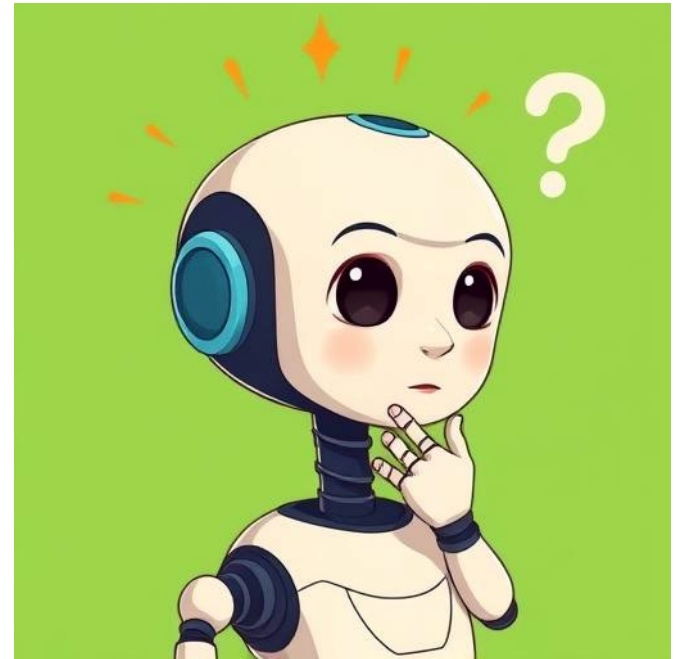
Note: You're **allowed to use AI** to help you answer the homework questions. However, **you're responsible for the answer you submit**. So, it's up to you to make sure you check any content you get from an AI tool.

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General AI policy

You're **welcome to use AI in this class** (e.g., ChatGPT, anything else that crosses your path that seems useful, etc). Learning to use AI is an emerging skill that can help you improve your workflow if you can figure out how to use it effectively. To use AI effectively, you **need to be aware of the limits** of these software systems.

In particular, AI is a tool, just like a pencil or a computer. AI can be a valuable tool for **drafting content and fine-tuning content** that's already been produced, but it definitely **isn't a replacement for critical thinking and decision-making**.

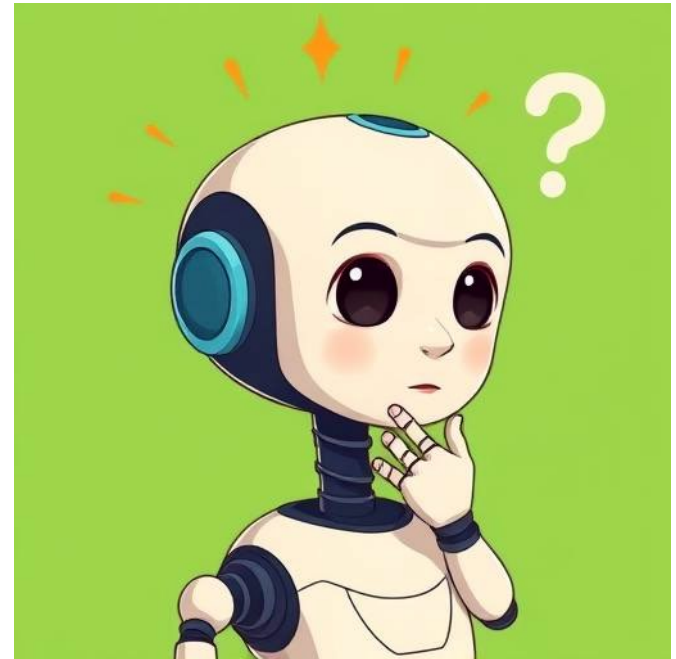


Administrivia

General AI policy

You're **welcome to use AI in this class** (e.g., ChatGPT, anything else that crosses your path that seems useful, etc). Learning to use AI is an emerging skill that can help you improve your workflow if you can figure out how to use it effectively. To use AI effectively, you **need to be aware of the limits** of these software systems.

Use your best judgment to determine if/where/when to use this tool. It **doesn't always make your life easier and/or better** (but sometimes it really does).



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Assignments

Homework:

Late homework will be accepted according to the late policy listed in the assignments section on the class webpage. If you can't turn in the homework on time, **take advantage of the policy to get some credit for your assignment. Seriously.**

Late policy: Late assignments will be accepted, but will lose 5% of the total score possible on the assignment for **every day** late. This is to encourage you to do the assignments, as it is far preferable to work through the material late rather than never. Moreover, homework comprises a significant portion of your grade, so please do it – even if it's late. Late assignments can be submitted through the normal Canvas interface.

If you submit a late assignment, please email both the professor and the TAs so that your assignment will be appropriately graded.

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Assignments

Review questions are also available for each topic, but you are not required to do them. They're just there to help you review the material (and are a great way to focus your attention for the timed assessments).

9/26/25

**Introduction to
Language
Acquisition I**

(pdf)

(recorded session)

Review questions
available for intro

HW1 available

Administrivia

Assignments

Commenting on class material

Discussing material from class is one way to engage with it more productively. We'll use interactive commenting where you can respond to other people's comments and engage in a discussion over the content.

Note: Even just seeing other people's comments on content you also had thoughts about can help refine your own understanding of that content. That's why we'll be doing [interactive commenting for each unit's review questions and homework questions](#).

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Assignments

Commenting on class material

Assignment information
Due Mon Oct 6, 2025 12:00 pm PDT
Please comment on anything that causes you to have a thought or question. You're welcome to comment on other people's comments (as well as upvote them).
You're responsible for 6 comments.
<i>6+ thoughtful posts required for full credit</i>

We'll currently be using Perusall (linked through the Canvas coursesite) as a tool for interactive commenting. You'll be responsible for generating a certain number of comments (either directly on the content or in response to others' comments) for the material corresponding to the unit. We'll [use these comments to guide our in-class discussion for each review session](#), so you can only receive full credit if you comment by the review session start.

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Assignments

Commenting on class material

Assignment information
Due Mon Oct 6, 2025 12:00 pm PDT
Please comment on anything that causes you to have a thought or question. You're welcome to comment on other people's comments (as well as upvote them).
You're responsible for 6 comments.
<i>6+ thoughtful posts required for full credit</i>

Late interactive commenting will be accepted for partial credit, according to Perusall's "linearly-declining" credit rubric. (So, the later you submit after the deadline, the less credit you get.)

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Timed Assessments

There will be a timed assessment after almost every major topic covered (though the last one combines two topics because they're short). These assessments are *not cumulative*, and include only material from that topic, typically 3-4 lectures worth of material.

Review questions will be available for each topic covered in class, and there will be a discussion/review in class before each timed assessment opens up. We will discuss the format of each timed assessment in the review session before the assessment.

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Timed Assessments

The timed assessments are **open-note** (including the lecture notes, the homeworks, the review sessions, the reference materials, AI, and any notes of your own you wish to have), but they are **non-collaborative** (no group efforts, please).

If you are **caught collaborating during any timed assessment, you will all receive a 0** for that timed assessment and be reported for academic dishonesty.

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Grades

Homework: 35%

Commenting on class material: 30%

Timed assessments: 35%

Your grades will be determined by approximately this scale:

96.50-100.00: A+

83.50-86.49: B ...

93.50-96.49: A

80.00-83.49: B-

90.00-93.49: A-

76.50-79.99: C+

86.50-89.99: B+

73.50-76.49: C

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Extra Credit

You can earn up to 3 percentage points of extra credit two ways. (See the class web page under the “assignments” tab for more details.)

- (1) Participate as a human subject in social science experiments for up to 3 hours (half an hour = half a percentage point).
- (2) Create assessment questions based on the course material that an AI tool will get wrong (1 percentage point per question).

Extra credit

You may earn up to a **maximum of 3 extra credit percentage points** two different ways:

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Schedule

“This is our wonderful schedule. We usually keep to it, but it is subject to modification.”

Topics:

Intro to Language Acquisition	(9/26 – 10/3)	[3]
Biological Bases of Language	(10/10 – 10/17)	[3]
Phonological Acquisition	(10/22 – 10/27)	[3]
Lexical & Morphological Acquisition	(10/31 – 11/7)	[4]
Syntactic Acquisition	(11/12 – 11/19)	[4]
Language & Cognition	(11/24)	[1]
Language in Special Populations	(12/1 – 12/3)	[2]

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Zoom class sessions



Our class sessions will be [conducted live on Zoom](#), but [recorded](#) so that students who can't attend the live session can still see the class session.

Recorded sessions will be [available via the Canvas site](#). Please check there if you've missed a class session.

[Quizzes](#)

[Grades](#)

[Assignments](#)

[People](#)

⋮ ▾ Lectures

What is language?



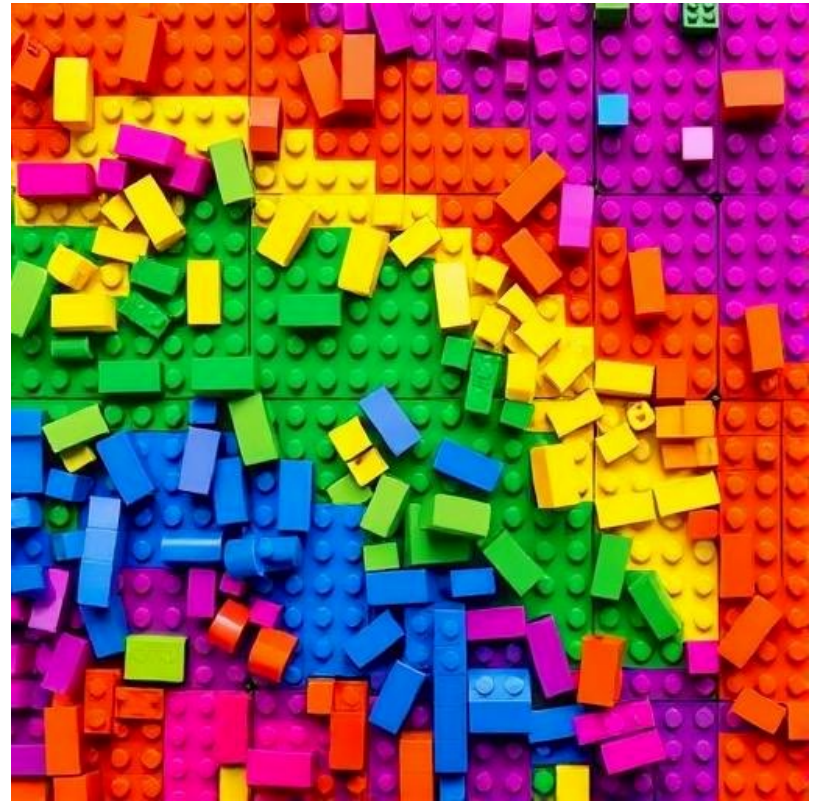
https://www.ted.com/talks/david_peterson_why_language_is_humanity_s_greatest_invention

"Imagine creating any one of those things or, like, building an entire building like this, without being able to use language or without benefiting from any knowledge that was got by the use of language. **Basically, language is the most important thing in the entire world.** All of our civilization rests upon it. And those who devote their lives to studying it -- both how language emerged, how human languages differ, how they differ from animal communication systems -- are linguists. Formal linguistics is a relatively young field, more or less. And it's uncovered a lot of really important stuff. Like, for example, that human communication systems differ crucially from animal communication systems, that all languages are equally expressive, even if they do it in different ways."

What is language?

<https://thereader.mitpress.mit.edu/finding-language-in-the-brain/>

“What exactly is language? At first thought, it’s a continuous flow of sounds we hear, sounds we make, scribbles on paper or on a screen, movements of our hands, and expressions on our faces. But if we pause for a moment, we find that behind this rich experiential display is something different: the **smaller and larger building blocks of a Lego-like game of construction**, with parts of words, words, phrases, sentences, and larger structures still.”



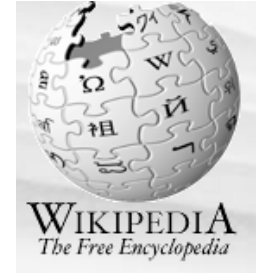
What is language?

<https://thereader.mitpress.mit.edu/finding-language-in-the-brain/>

“We can choose the pieces and put them together with some freedom, but not anything goes. **There are rules, constraints.** And no half measures. Either a sound is used in a word, or it’s not; either a word is used in a sentence, or it’s not. But unlike Lego, language is abstract: Eventually, one runs out of Lego bricks, whereas there could be no shortage of the sound b, and no cap on reusing the word “beautiful” in as many utterances as there are beautiful things to talk about.”



What is language?



A **language** is a **system of signals**, such as voice sounds, gestures or written **symbols**, that encode or decode **information**.

Human languages are usually referred to as natural languages, and the science of studying them is **linguistics** or **language science**.

The term "**animal languages**" is often used for non-human languages. Most researchers agree that these are not as complex or expressive as human language; they may better be described as **animal communication**. Some researchers argue that there are significant differences separating human language from the communication of other animals, and that the underlying principles are unrelated.

Language and language acquisition

"Language is about as close to magic as we can get. We push air through our lungs, vibrate our vocal chords and move our mouths, and as a result, we can make the people around us become aware of past events, understand our thoughts or plans, perform actions, or come to have new beliefs. This magic is made possible by the **shared cognitive systems, or grammars**, of speakers and listeners....The study of language acquisition aims to uncover how this shared cognitive system arises within the mind of a human child. **How does a child exposed to the vibrations of air caused by our utterances come to build a cognitive system for producing and understanding an unlimited number of sentences?**" - Lidz & Perkins 2018



Knowledge of language

It's so natural for us to produce and comprehend language that we often don't think about what an accomplishment this is.



Or how we learned language
in the first place.

= **language acquisition**

Why study language acquisition?

The big picture, theoretically speaking:



“The study of language acquisition still plays a central role in the debate over how to characterize human cognition, for the same reason that language acquisition played a central role in the cognitive revolution. That is, **it is so difficult to explain how language acquisition is possible that accounting for language acquisition is a test not likely to be passed by inaccurate cognitive theories.**” – Hoff 2008, p.8

Why study language acquisition?

More practically speaking, **applications of language acquisition research:**

Understanding how normal language acquisition proceeds so that we can help children who have problems with their language acquisition
([language pathology](#))



Why study language development?

More practically speaking, **applications of language acquisition research:**

Understanding how learning more than one language works, and how to best teach children who are learning multiple languages simultaneously

([language pedagogy](#))



The interaction of theory & practice



These two areas aren't always separate - insights from one can help understanding in the other.

Example: **Research on children with autism**
(Tager-Flusberg 1994, 2007)



The interaction of theory & practice



Example: **Research on children with autism**

(Tager-Flusberg 1994, 2007)

Autistic children have severe communicative deficiencies.
However, they still acquire language structure.

**Implication: Learning language involves more than
learning how to fulfill a need to communicate.**

The interaction of theory & practice



Example: **Research on children with autism**

(Tager-Flusberg 1994, 2007)

Implication: Learning language involves more than learning how to fulfill a need to communicate.

What this means: **applied language acquisition research influences our understanding of the process of language acquisition**

What's all the fuss about language acquisition?



What's all the fuss about language acquisition?

Children are amazing at learning language.
It's magical.



"Language is about as close to magic as we can get. We push air through our lungs, vibrate our vocal chords and move our mouths, and as a result, we can make the people around us become aware of past events, understand our thoughts or plans, perform actions, or come to have new beliefs." - Lidz & Perkins 2018



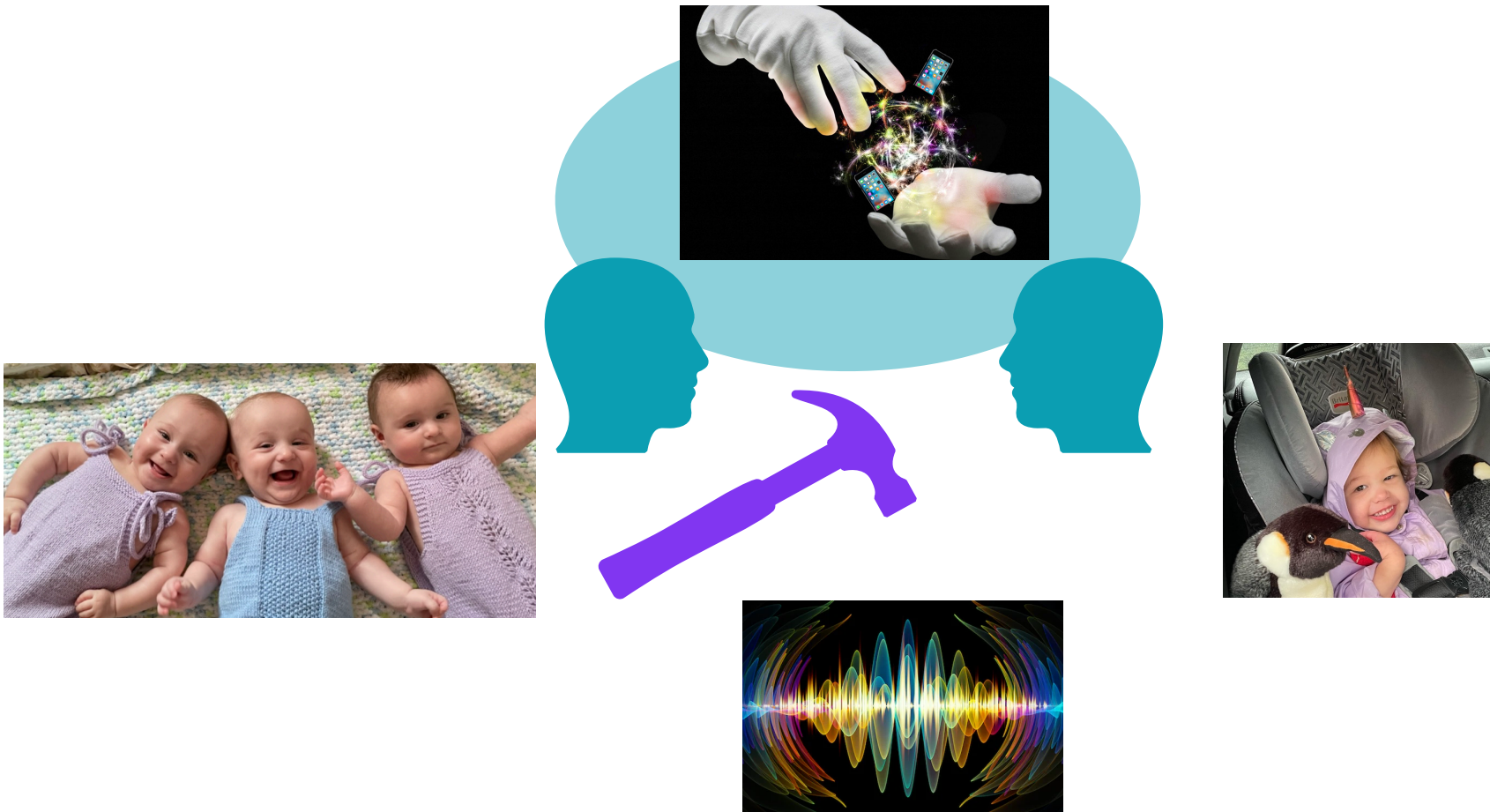


"This magic is made possible by the **shared cognitive systems**...of speakers and listeners...." - Lidz & Perkins 2018



"The study of **language acquisition** aims to uncover how this shared cognitive system **arises within the mind of a human child.**" - Lidz & Perkins 2018





"How does a child exposed to **the vibrations of air** caused by our utterances come to **build** a **cognitive system**" capable of this **communicative magic**? - Lidz & Perkins 2018

Children are amazing at learning language



(C) 2013 Ryan North

www.qwantz.com

<http://www.qwantz.com/index.php?comic=2479>

[Extra] “The Linguistic Genius of Babies”

http://www.ted.com/talks/patricia_kuhl_the_linguistic_genius_of_babies.html

(up through 10:07, but especially through 7:55)



Children are amazing at learning language

Wait...what exactly do you know when you know a language?



Children are amazing at learning language

Wait...what exactly do you know when you know a language?



By one recent estimate (Mollica & Piantadosi 2019), about **12.5 million bits of information**

<https://www.sciencedaily.com/releases/2019/03/190327134547.htm>

Wait...what exactly do you know when you know a language?

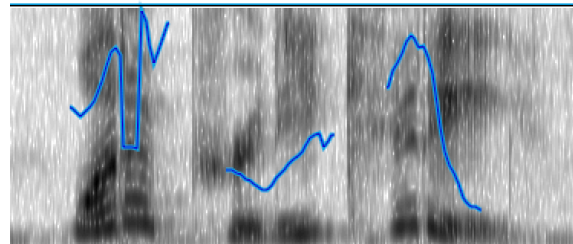
A lot!



Wait...what exactly do you know when you know a language?

A lot!

You know how to identify words in fluent speech (**speech segmentation**)



wʌtəprɪkɪrɪ

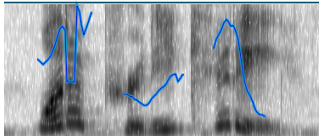
wʌt ə prɪ kɪrɪ

what a pretty kitty!



Wait...what exactly do you know when you know a language?

A lot!



what a pretty kitty!

speech segmentation



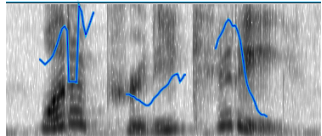
You know how to pronounce words (**phonology**)

✓ KI tty
✗ ki TTY



Wait...what exactly do you know when you know a language?

A lot!



speech segmentation

what a pretty kitty!

✓ Ki tty

✗ ki TTY

phonology

You know that certain words behave like other words (syntactic categorization)

owl



Countable
Noun

what a pretty ____!

penguin

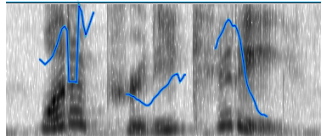


kitty



Wait...what exactly do you know when you know a language?

A lot!



what a pretty kitty!

speech segmentation

✓ KI tty
✗ ki TTY

phonology

Noun

penguin

owl

kitty

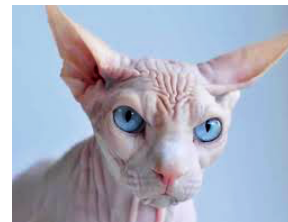
syntactic categorization

You know how to interpret words in context
(syntax, semantics)



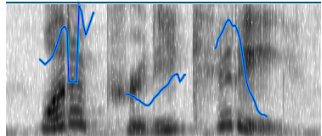
“Oh look — a kitty!”
“He’s such a pretty kitty!”

“Look — there’s another one!”



Wait...what exactly do you know when you know a language?

A lot!



what a pretty kitty!

speech segmentation

✓ Ki tty

✗ ki TTY

phonology

Noun

penguin

owl

kitty

syntactic categorization

“he” “one”

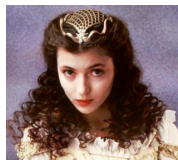
syntax, semantics



You know how to put words together to ask questions (syntax)

This kitty was bought as a present for someone.

Lily thinks this kitty is pretty.

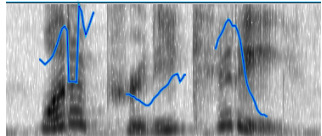


Who does Lily think the kitty for is pretty?



Wait...what exactly do you know when you know a language?

A lot!



what a pretty kitty!

speech segmentation

✓ KI tty
✗ ki TTY

phonology

Noun

penguin

owl

kitty

syntactic categorization

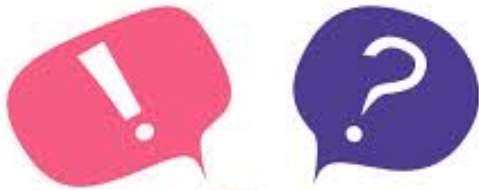
Who does Lily think the kitty for is pretty?



syntax

syntax, semantics

“he” “one”



“I think I saw **all the kitties on the stairs.**”

“No - **every** kitty did**n't** sit on the stairs”

✓ **Not all** kitties sat on the stairs.

✗ **No** kitties sat on the stairs.

pragmatics



Wait...what exactly do you know when you know a language?

A lot!

phonology

speech segmentation

syntactic categorization

syntax

pragmatics

syntax, semantics



So how exactly do children learn all this?



So how exactly do children learn all this?

We know they do it relatively quickly.

speech segmentation

phonology

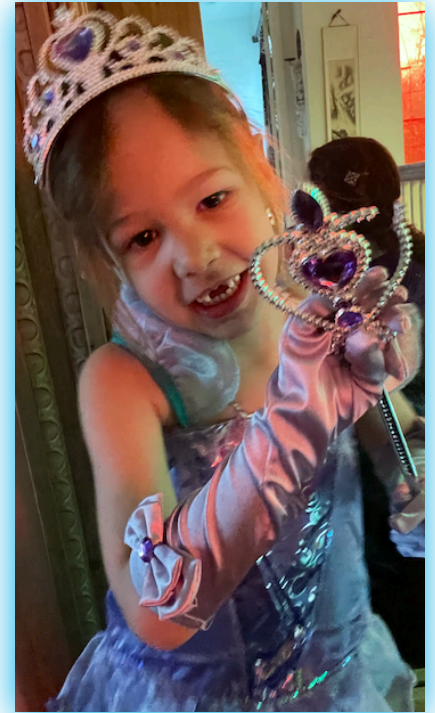
syntactic categorization

syntax

syntax, semantics

pragmatics

Much of the linguistic system
is already known by **age 4**.



Interesting: They do this **mostly without explicit instruction**.



So how exactly do children learn all this?

And when they do get **explicit instruction**, they **don't really pay attention** to things that don't impact meaning.

(From Martin Braine)

Child: Want **other one spoon**, Daddy.

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**".

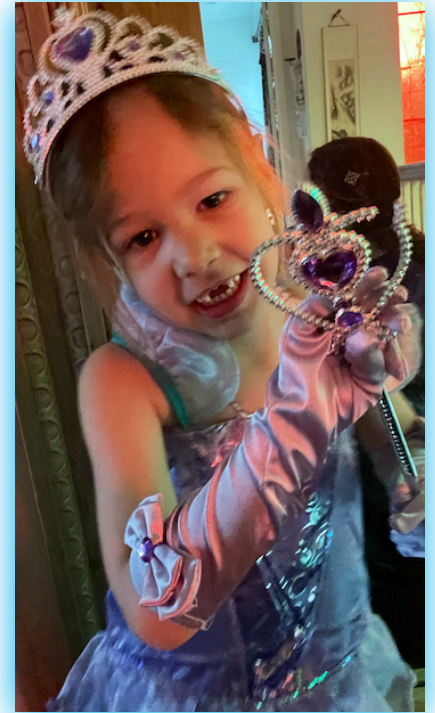
Child: Other.

Father: "**Spoon.**"

Child: Spoon.

Father: "**Other spoon.**"

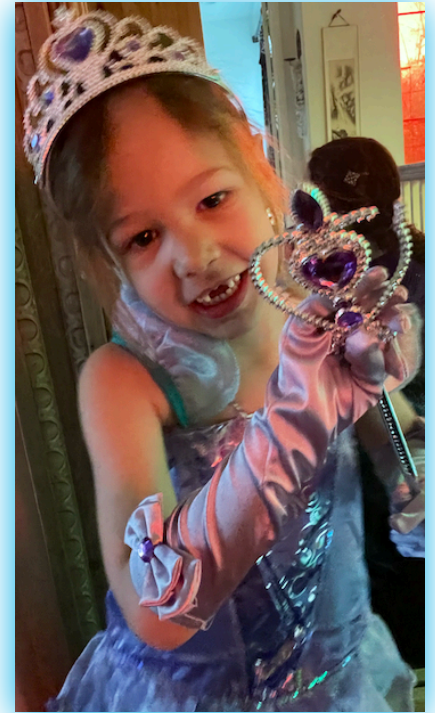
Child: **Other...spoon. Now give me other one spoon?**



So how exactly do children learn all this?

In general, imitation isn't likely to get them too far....

Imitation certainly *is* useful for learning some aspects of language, such as learning that the sequence of sounds “*cat*” refers to a furry, purring pet.



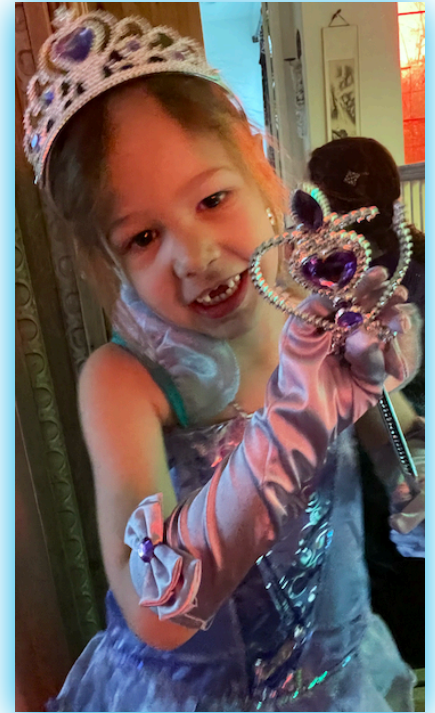
So how exactly do children learn all this?

In general, imitation isn't likely to get them too far....

However, children can't learn how to understand and produce full sentences by imitating what they hear and repeating it word for word.

Why not?

One reason: Most sentences are novel – you understand and produce them on the fly, and may never have heard them before.

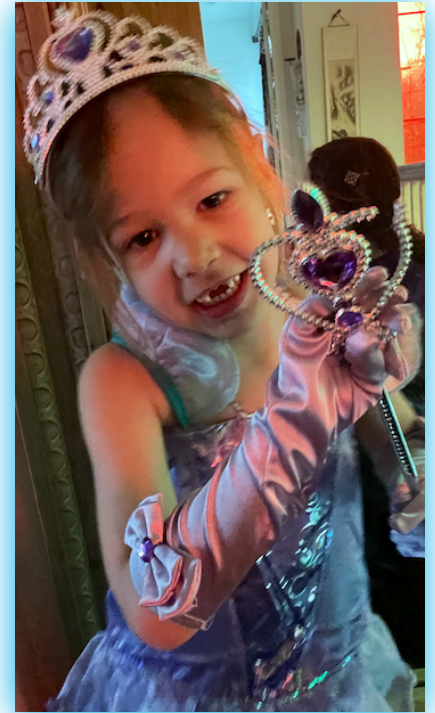
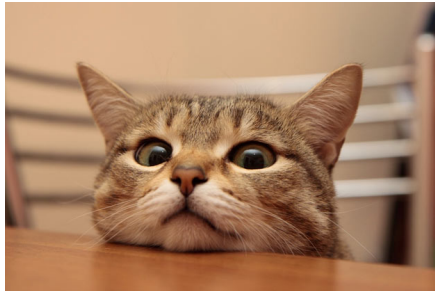


So how exactly do children learn all this?

In general, imitation isn't likely to get them too far....

Also, it turns out that children are bad at imitating sentences where they don't know some of the words (so how could they learn those words by imitating them?):

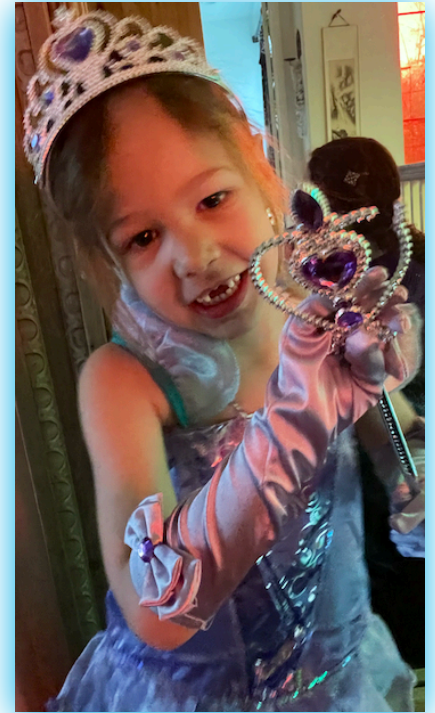
“The cat is hungry” becomes “Cat hungry.”



So how exactly do children learn all this?

In general, imitation isn't likely to get them too far....

In addition, children don't often repeat word-for-word what adults around them say.



[Extra] More imitation problems

[Extra] More imitation problems

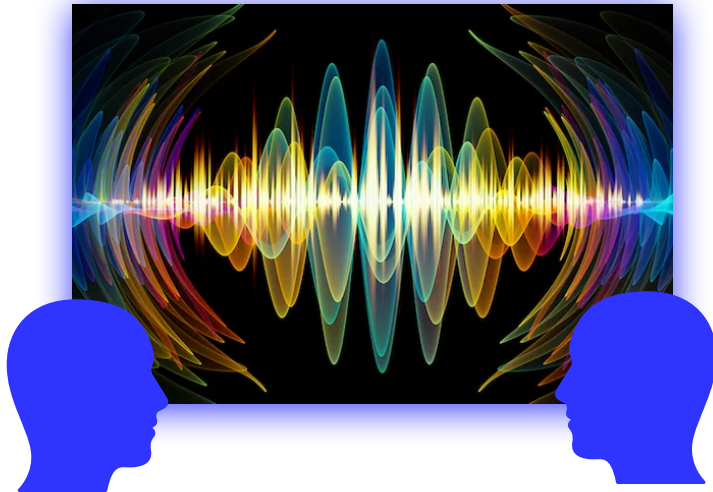
<https://www.youtube.com/watch?v=a7Un06tDOn0&feature=youtu.be>

5:31-6:27



What kids are doing

Extracting patterns and making generalizations from the surrounding data mostly just by hearing examples of what's allowed in the language.



The rules of language = grammar

It's also unlikely children learn by being explicitly taught all the rules of their language. This is because once we go beyond the most superficial things (like “cat” is a furry, purring pet), **most of our knowledge is subconscious.**



We know it – but we don't know *how* we know it or why it's so.

language is
communicative magic



Most of our native language knowledge isn't conscious.

We know it – but we don't know *how* we know it or *why* it's so.



Some things you probably know



We should name this new product for an English-speaking market!
Let's call it a...



Some things you probably know



We should name this new product for an English-speaking market!
Let's call it a...

strimp

stvimp



Some things you probably know



We should name this new product for an English-speaking market!
Let's call it a...

strimp
✓

stvimp
✗



Some things you probably know



You know what sounds go together to sound English-like.

strimp
✓

stvimp
✗



Some things you probably know



Let's think about how to pronounce
the “s” at the end of these words

cats

dogs





Some things you probably know



Let's think about how to pronounce
the "s" at the end of these words

This one sounds like "s".

cats

dogs

This one sounds like "z".





Some things you probably know



You know that these “s” sounds
are pronounced differently!

This one sounds like “s”.

cats

dogs

This one sounds like “z”.





Some things you probably know



Let's figure out who “**she**” could
be in some sentences.

cat**s**
dog**s**





Some things you probably know



While **she** was wearing a hat, Lindy laughed.

cat**s**
dog**s**



Could “**she**” = Lindy?





Some things you probably know



cats
dogs



While *she* was wearing a hat, Lindy laughed.
While Lindy was wearing a hat, Lindy laughed.

Could “*she*” = Lindy?





Some things you probably know



cats
dogs



While *she* was wearing a hat, Lindy laughed.
While *Lindy* was wearing a hat, Lindy laughed.

Could “*she*” = Lindy?





Some things you probably know



While **she** was wearing a hat, Lindy laughed. ✓

While Lindy was wearing a hat, **she** laughed.

cat**s**
dog**s**



Could “**she**” = Lindy?



Some things you probably know



While *she* was wearing a hat, Lindy laughed. ✓

While Lindy was wearing a hat, *she* laughed.
While Lindy was wearing a hat, Lindy laughed.

cat*s*
 dog*s*



Could “*she*” = Lindy?



Some things you probably know



While *she* was wearing a hat, Lindy laughed. ✓

While Lindy was wearing a hat, *she* laughed.
While Lindy was wearing a hat, Lindy laughed.

cats
dogs



Could “*she*” = Lindy? ✓



Some things you probably know



While **she** was wearing a hat, Lindy laughed.

While Lindy was wearing a hat, **she** laughed.



Lindy laughed while **she** was wearing a hat.

cat**s**
dog**s**



Could “**she**” = Lindy?



Some things you probably know



While *she* was wearing a hat, Lindy laughed.

While Lindy was wearing a hat, *she* laughed.



Lindy laughed while *she* was wearing a hat.

Lindy laughed while Lindy was wearing a hat.

cat*s*
dog*s*



Could “*she*” = Lindy?



Some things you probably know



While *she* was wearing a hat, Lindy laughed.

While Lindy was wearing a hat, *she* laughed.



Lindy laughed while *she* was wearing a hat.

Lindy laughed while Lindy was wearing a hat.

cat*s*
dog*s*



Could “*she*” = Lindy?





Some things you probably know



While **she** was wearing a hat, Lindy laughed.

While Lindy was wearing a hat, **she** laughed.

Lindy laughed while **she** was wearing a hat.



She laughed while Lindy was wearing a hat.

cat**s**

dog**s**



Could “**she**” = Lindy?





Some things you probably know



cats
dogs



While *she* was wearing a hat, Lindy laughed.
While Lindy was wearing a hat, *she* laughed.
Lindy laughed while *she* was wearing a hat.



She laughed while Lindy was wearing a hat.
Lindy laughed while *Lindy* was wearing a hat.

Could “*she*” = Lindy?





Some things you probably know



cats
dogs



While *she* was wearing a hat, Lindy laughed.

While Lindy was wearing a hat, *she* laughed.

Lindy laughed while *she* was wearing a hat.



She laughed while Lindy was wearing a hat.

Lindy laughed while *Lindy* was wearing a hat.

Could “*she*” = Lindy?





Some things you probably know



cats
dogs



While *she* was wearing a hat, Lindy laughed.
While Lindy was wearing a hat, *she* laughed.
Lindy laughed while *she* was wearing a hat.



She laughed while Lindy was wearing a hat.
Lisa laughed while Lindy was wearing a hat.

“*she*” = someone else





Some things you probably know



cats
dogs



While **she** was wearing a hat, Lindy laughed. ✓
While Lindy was wearing a hat, **she** laughed.
Lindy laughed while **she** was wearing a hat.

“**she**” = Lindy

She laughed while Lindy was wearing a hat. ✗



You know how to interpret pronouns like “she”.

Some things you probably know



cats
dogs



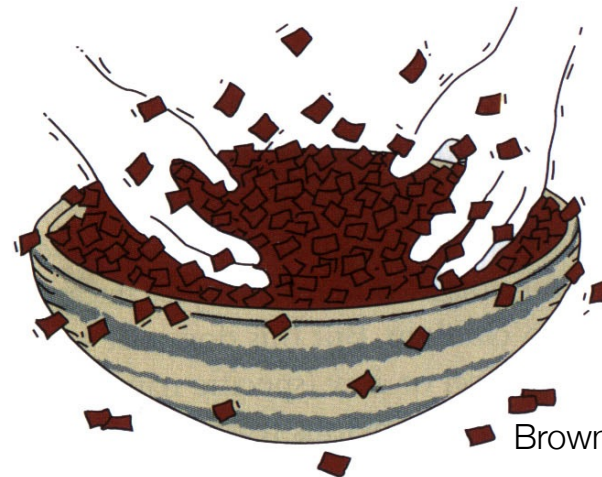
While **she**..., Lindy...
While Lindy..., **she**...
Lindy...while **she**...



She ...while Lindy...



Let's figure out what
the nonsense word **dax**
refers to in this picture



Brown 1957

Some things you probably know



cats
dogs



✓
While she..., Lindy...
While Lindy..., she...
Lindy...while she...

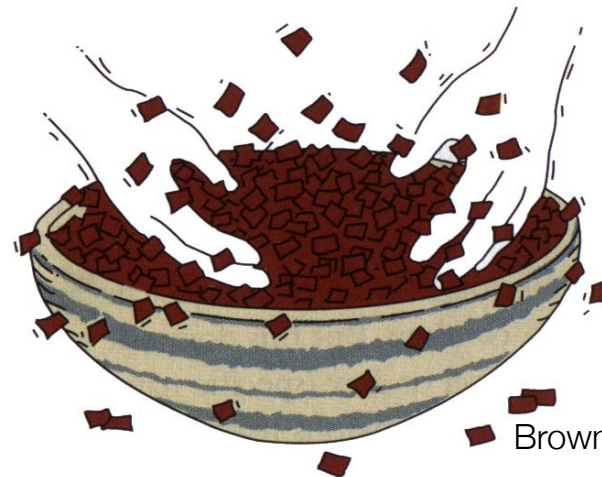


✗
She ...while Lindy...

What does **dax** refer to?



He's **daxing**!



Brown 1957

Some things you probably know



cats
dogs



✓
While she..., Lindy...
While Lindy..., she...
Lindy...while she...



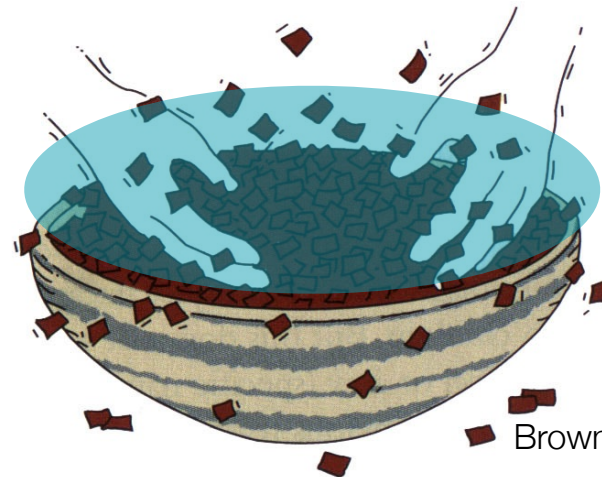
✗
She ...while Lindy...

What does **dax** refer to?

The **action** the
hands are doing



He's **daxing**!



Brown 1957

Some things you probably know



cats
dogs

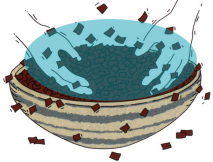


While **she**..., Lindy...
While Lindy..., **she**...
Lindy...while **she**...

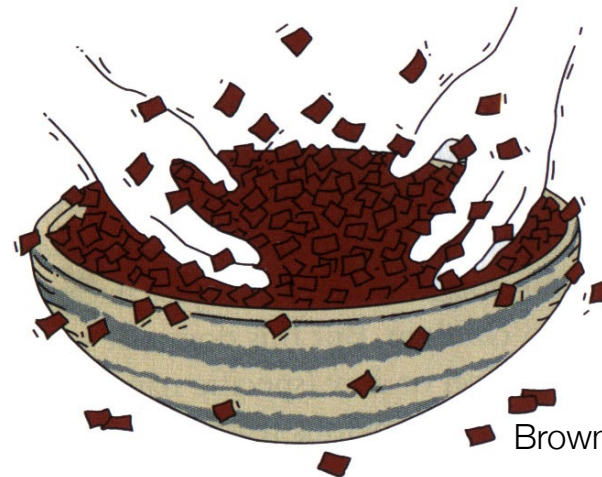


She ...while Lindy...

He's **dax**ing!



What does **dax** refer to?



Brown 1957



Look — a **dax**!

Some things you probably know



cats
dogs

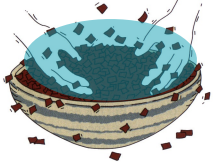


While **she**..., Lindy...
While Lindy..., **she**...
Lindy...while **she**...



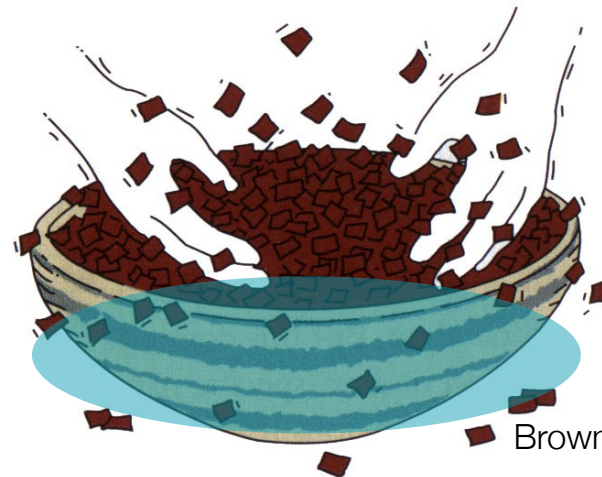
She ...while Lindy...

He's **daxing**!



What does **dax** refer to?

The **single object**



Brown 1957



Look — a **dax**!

Some things you probably know



cats
dogs



✓
While she..., Lindy...
While Lindy..., she...
Lindy...while she...

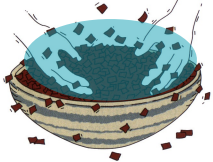


✗
She ...while Lindy...



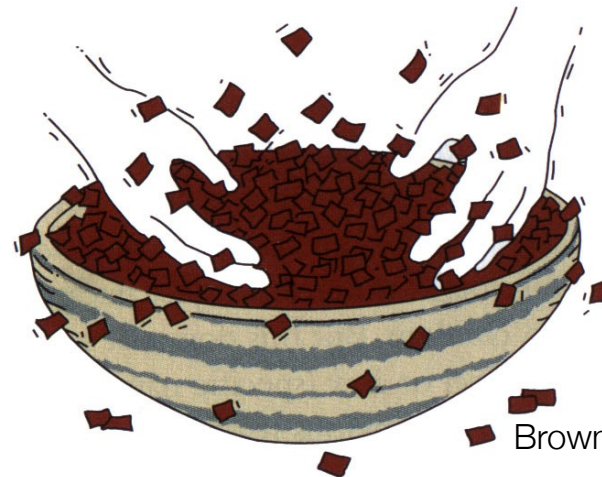
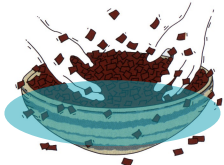
Look — some dax!

He's daxing!



What does dax refer to?

Look — a dax!



Brown 1957

Some things you probably know



cats
dogs



✓
While she..., Lindy...
While Lindy..., she...
Lindy...while she...

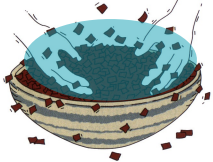


✗
She ...while Lindy...



Look — some dax!

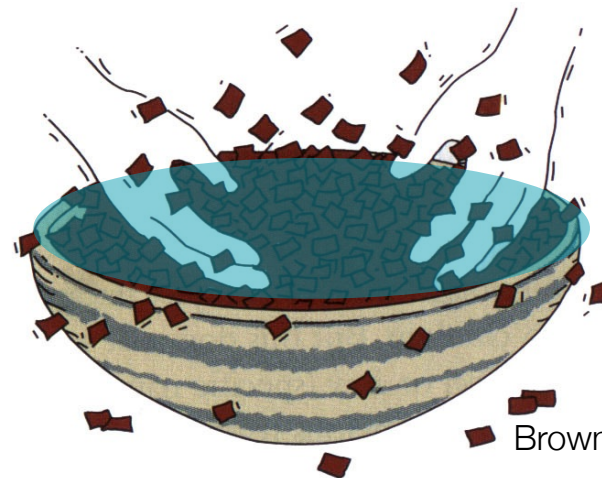
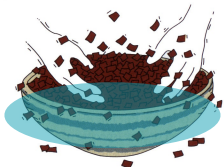
He's daxing!



What does dax refer to?

The stuff

Look — a dax!



Brown 1957

Some things you probably know



cats
dogs



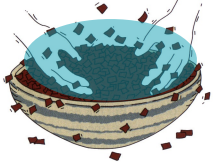
✓
While she..., Lindy...
While Lindy..., she...
Lindy...while she...



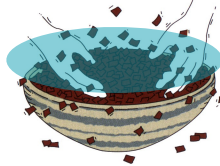
✗
She ...while Lindy...



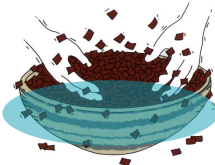
He's daxing!



Look — some dax!



Look — a dax!



You know how to use the language surrounding an unknown word to figure out what it refers to.

Some things you probably know



cats
dogs



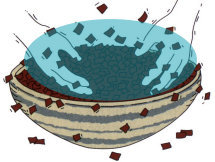
✓
While she..., Lindy...
While Lindy..., she...
Lindy...while she...



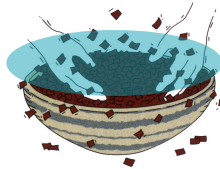
✗
She ...while Lindy...



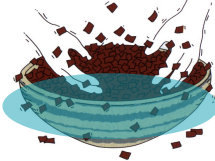
He's **daxing**!



Look — **some dax**!



Look — **a dax**!



This ability to use **the surrounding language** makes Lewis Carroll's *Jabberwocky* poem, with all its **nonsense words**, so enjoyable (and understandable).

Some things you probably know



cats
dogs



While *she*..., Lindy...
While Lindy..., *she*...
Lindy...while *she*...

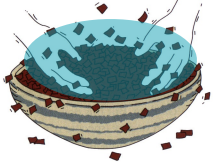


She ...while Lindy...

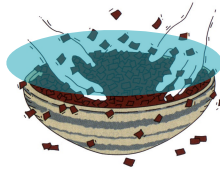


Jabberwocky
by Lewis Carroll

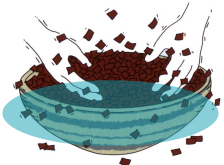
He's *daxing*!



Look — *some dax*!



Look — *a dax*!



Twas brillig, and the slithy toves
Did gyre and gimble in the wabe:
All mimsy were the borogoves,
And the mome raths outgrabe

Some things you probably know



cats
dog

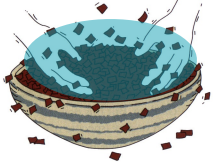


While she..., Lindy...
While Lindy..., she...
Lindy...while she...

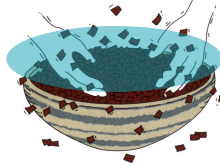


She ...while Lindy...

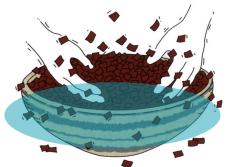
He's daxing!



Look — some dax!



Look — a dax!

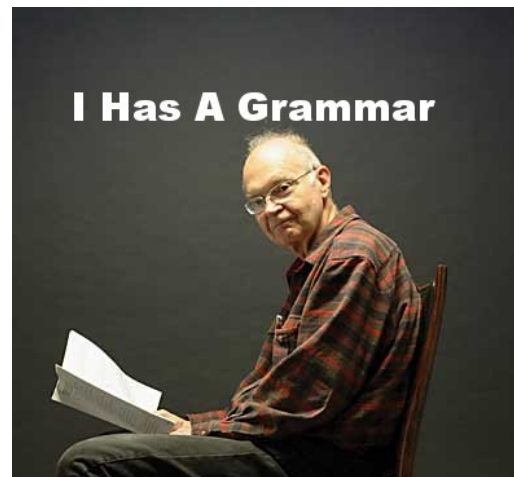


Children have to learn all these things (and more!) for their native language(s)



What's being learned:

Patterns or “rules” of language = **grammar**



A distinction: prescriptive vs. descriptive grammar rules

Prescriptive: what you have to be taught in school, what is prescribed by some higher “authority”. You don’t learn this just by listening to native speakers talk.

“Don’t end a sentence with a preposition.”

“ ‘Ain’t’ is not a word.”



A distinction: prescriptive vs. descriptive grammar rules

Descriptive: what you pick up from being a native speaker of the language, how people actually speak in their day-to-day interactions. You don't have to be explicitly taught to follow these rules.

The dwarf is who Sarah first talked **with**.

“You’re horrible!” “No, I **ain’t** - I’m Hoggle!”



[Extra] A distinction: prescriptive vs. descriptive grammar rules

The LingSpace: Word Crimes & Misdemeanors
~0.26 up through ~8:26



<http://www.thelingspace.com/episode-3> (+ commentary)
https://www.youtube.com/watch?t=85&v=eFIBwBwL_iU

In a nutshell: prescriptive vs. descriptive grammar rules



“You can’t say that!” vs. “Can you say that!?”

<http://specgram.com/CLIV.3/04.phlogiston.cartoon.xi.html>

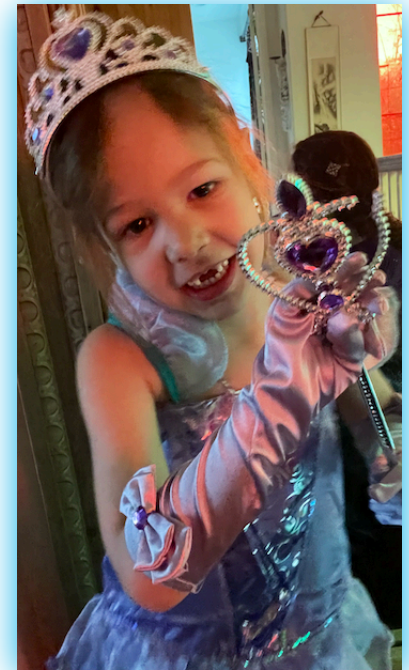
Recap: Big picture

Studying language development can help us understand cognition in general, as well as issues in language pathology and language pedagogy.

Knowledge of language includes knowledge of many different systems.

Our language knowledge consists of many implicit rules (sometimes called a grammar), which means we probably can't explicitly teach children these rules.

In language acquisition, we care about the acquisition of descriptive rather than prescriptive rules of grammar.



speech segmentation

phonology

syntactic categorization

syntax

syntax, semantics

pragmatics

Questions?



Start looking over the review questions and HW1 (due 10/6/25), and feel free to start commenting on the material. You should be able to do up through 5 on the introductory review questions and up through 4 on HW1.