

# Language 1


## Features of and Structure in Language

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## What is Language?

- A set of *symbols* and *principles* for combining these symbols that allow for communication and comprehension.
- 5 Key Properties of Language
  - creative
  - structured
  - meaningful
  - referential
  - interpersonal

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- Spoken languages are composed of a hierarchy of building blocks that combine to form higher- and higher-level categories. At the bottom of this hierarchy are: \_\_\_\_\_ .

- morphemes
- phrases
- phonemes
- words

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## Structured

- Language is structured at many levels; this structure determines what is and is not well formed and how meaning is conveyed

- Words
  - plan
  - \*tlan
- Phrases
  - the very tall boy
  - \*very boy tall the
- Sentences
  - The boys climbed the trees
  - \*climbed the trees the boys

Asterisks indicate something this is not allowed in English

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## Meaningful


- Words and sentences convey ideas and concepts
- Structure & Meaningfulness are independent features of language
  - Colorless green ideas sleep furiously

This is structured but not meaningful

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## Referential

- Language is used to describe and make reference to things in the world
  - that dog, the boy, this flower, me, you, each other,...
- Reference and meaning are independent
  - That dog is barking. referential & meaningful
  - All men are created equal. non-referential, but meaningful



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## Interpersonal



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## Levels of language

- Phonology (sound structure)
- Morphology (structure of words)
- Syntax (structure)
- Semantics (meaning)
- Pragmatics (context)

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- How do languages differ at the level of sound?
  - A. Languages differ in their use of rhythms within phrases.
  - B. Languages differ in their use of tone.
  - C. Languages differ in their use of word stress.
  - D. All of the above answers are correct.

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## Phonology

- The study of the sound patterns of language
- Phoneme: The smallest unit of sound that can be altered to change the meaning of a word
- In English, the words *gin*, *kin*, *pin*, *tin*, *win* all have different meanings due to the fact that the initial sound, or phoneme, is different

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## Tone

- The way that the pitch of a word or utterance changes
- Tone plays a role in English
  - Discriminating between different words or forms of words: e.g., *object*
  - Discriminating different sentence constructions
- Unlike English, in many Asian languages, tone is a basic feature distinguishing syllables

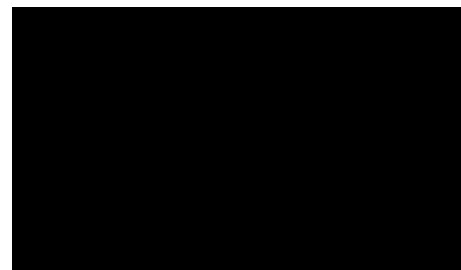
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## How Tones Distinguish Syllables in Mandarin Chinese

From <http://www.wku.edu/~shizhen.gao/Chinese101/pinyin/tones.htm>



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## Example of Tones Changing Meaning

tone:	high	rising	falling then rising	falling
Mandarin:	mā	má	mǎ	mà
English:	mother	linen, hemp	horse	scolding, to scold

A mother who is riding on a horse thinks that it is slow and so she curses it.

Mā ma qí mǎ mǎ màn mā mà mǎ.



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## Morphology

- The study of the internal structure of words in a language
- Morpheme: smallest meaningful combination of sounds in a language

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## Strategies for Forming Words

- All languages have *lexical* units of some kind – utterances of one or more syllables that refer to meaning categories, or to relations between categories
- One strategy for creating words is to generate many modifications of a few syllables
  - Tone
  - Adding prefixes and/or suffixes
    - Anti / dis / establish / ment / arian / ism
    - Navajo is a particularly *agglutinative*
- English uses many separate word forms and auxiliaries: go / goes / went / has gone / will go / will have gone

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## Morphology & Word Formation

dog	one morpheme
cowboy	two morphemes
dogs [dog + s]	two morphemes
unlike	two morphemes

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## Words

Arbitrary symbols with referents or meanings assigned to them by the users

Do the following words sound or look like the animal shown here: chien, hund, perro?  
(They all are words for dog in European languages.)



What about this ASL version?  
<http://www.signingsavvy.com/sign/DOG>

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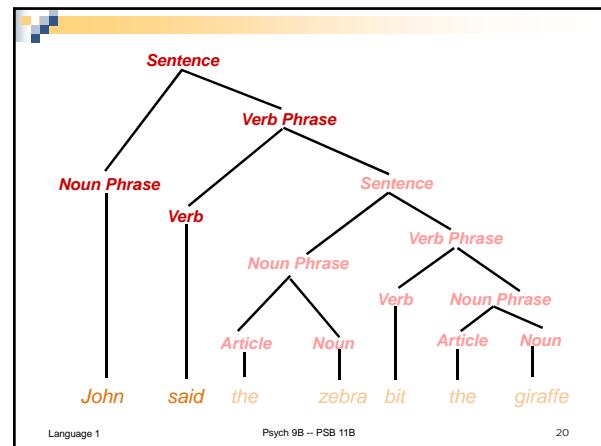
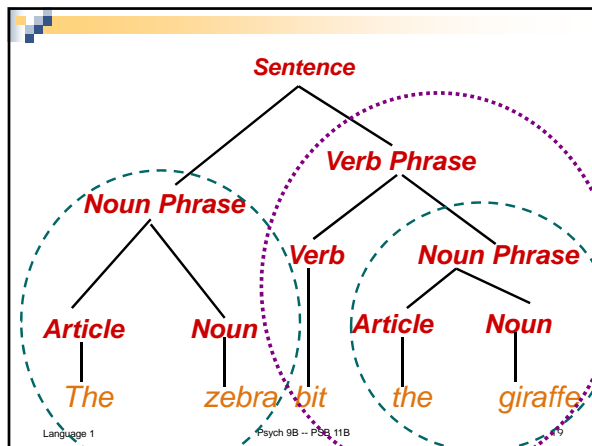
## Syntax

- Rules that specify how words can be combined into phrases and sentences that are considered "well formed" by speakers of a language
  - They are *implicitly* known *psychological principles*
  - Known by adults, young children and members of unschooled societies
- The same words can be ordered into different sentences with very different meanings
  - Mary is happy to know Tom
  - Tom knows Mary is happy.

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### Syntax and Phonology Interact

- Is (3) just a “sloppy” version on (1)?
  - A. Yes
  - B. No
- Is (4) just a “sloppy” version on (2)?
  - A. Yes
  - B. No

(1) I want to sleep  
(2) I have to sleep  
(3) I wanna sleep  
(4) I hafta sleep

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### Syntax and Phonology Interact

- Is (7) just a “sloppy” version on (5)?
  - A. Yes
  - B. No
- Is (8) just a “sloppy” version on (6)?
  - A. Yes
  - B. No

(5) I want two sheep  
(6) I have two sheep  
(7) I wanna sheep\*  
(8) I hafta sheep\*

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### Syntax and Phonology Interact

(1) I want to sleep  
(2) I have to sleep  
(3) I wanna sleep  
(4) I hafta sleep

(5) I want two sheep  
(6) I have two sheep  
(7) I wanna sheep\*  
(8) I hafta sheep\*

- English phonology does not allow the consonant sequence **v** followed by **t** in a spoken word
- Speakers convert **vt** to **ft**

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### Distinction between Voiced and Voiceless Consonants

<u>Voiceless</u>	<u>Voiced</u>	<u>Place</u>	<u>Manner</u>
F	V	Labio-Dental	Fricative
P	B	Bilabial	Plosive
S	Z	Alveolar	Fricative
K	G	Velar	Plosive
T	D	Alveolar	Plosive

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## Voiced-Voiceless Sequences are Prohibited by a Phonological Rule

- English phonology prohibits a voiced consonant to be followed by a voiceless consonant within a single word
  - "Have" ends with **v** which is voiced
  - "To" starts with **t** which is voiceless
  - So "Have To" considered as one word must be spoken as "Hafta"
  - This rule also explains "used to" becoming "Useta"
- "Wanna" and "Gotta" result from a similar rule
- Plurals formed with an **s** versus a **z** sound

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## The Voiced/Voiceless Rule is Obeyed in Early Childhood

Child sees



Experimenter says either

This is a wug.

Or

This is a wuk.

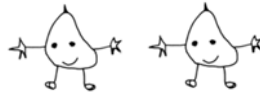
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## The Voiced/Voiceless Rule is Obeyed in Early Childhood

Child sees



Experimenter says

Now there are two of them.  
Now there are two \_\_\_\_?

Results: The children who told wug said **wugz**  
The children who were told wuk said **wuks**

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## Summary: Structure in Language

- Rules of formal structure are acquired by children without formal teaching
- These rules are deduced by youngsters given a sample of English speech
- More generally
  - Language is highly structured
  - Even young children know and honor the structural facts of their language in their language use.
- Even the most informal (sloppy?) speech can be explained by acknowledging that it is constrained by implicit structural principles

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## Looking Forward

- For Wednesday
  - Gleitman: Ch. 10, pp. 385- 396
- Chapter Test 4 **will** be on Wednesday, Nov. November 26<sup>th</sup>
- Coffee today at Phoenix Grill

Thinking 4

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