

# Language Development

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# Language

- \* **Language: system of symbols and rule for combining these symbols into messages or meanings.**

# Structure of Language

- \* There are three critical properties essential to any language
  - \* 1) Language is symbolic
  - \* Uses sounds, written signs or gestures to refer to objects.
  - \* Allows for displacement.

# Structure of Language

- \* 2) Structure: rules that govern how symbols can be combined
- \* Is zpfrovc considered to be a proper word?

# Structure of Language

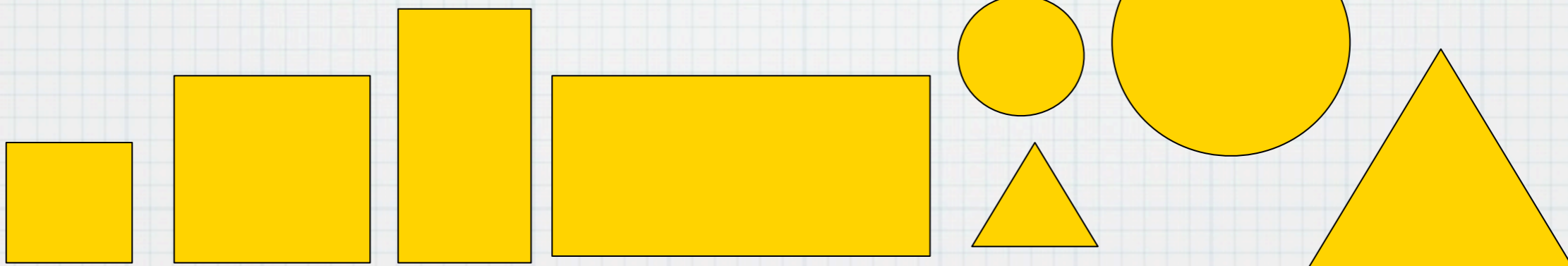
- \* **3) Generative:** symbols can be combined to generate an infinite number of messages.
- \* **Can you understand “Who put the nightingale under my strudel?”**

# Development of Language

- \* Anthropologists believe that language evolved when humans gathered in larger social units.
- \* Language allowed divisions of labour, development of social customs, and the ability to pass down knowledge and customs

# How Language Develops

- \* Your goal is to form a language.
- \* Since we only have a class period, your language will use a very limited world (i.e., shapes of varying size and colour) and a very limited set of word stems (i.e., 24).
- \* To illustrate your competence as using your language, one person should be able to describe a picture while another person produces it. Though this world is far less complicated than ours, communication is still complicated.





# How Language Develops

- \* During the game, you can only speak with your groups' word stems. During "time-outs" you can speak English but you can not talk to your group-mates about the game.
- \* You can take notes (with English) to help reduce the working memory demands of the game. But do not show anybody what you wrote.

# How Language Develops

- \* Pull out your lists of word stems. Remember these are the only word stems you can use in the game.
- \* Now pull out a single item from your world.
- \* When the game begins, say something using your language before you take anything else out of the envelope.

# How Language Develops

- \* Testing your Language Development
- \* Divide your group into two sub-groups, talkers and listeners.
- \* The “listeners” get an envelope of the shapes. They should face away from the paper.
- \* The “talkers” face the paper and tell the “listeners” what to make, using their language.
- \* No group should look at what the others are doing.

- \* Humans are inborn with the ability to acquire any of the thousands of languages in the world.

- \* Evidence:

- \* Infants can master language without formal instruction.

- \* 1-3 months of age, infants vocalize the entire range of sounds found in the world's languages.

- \* **Social learning plays a key role in language acquisition.**
- \* **Example: motherese**
- \* **Debate amongst cognitive vs. behaviorists about how important social learning is**
- \* **Behaviorists: Parents reinforce appropriate language**

# Language Loss

- \* By the end of the 21st century half of the worlds languages will disappear
- \* 15th century case study:
  - \* There were 15000 languages spoken at the beginning of the 15th century
  - \* European expansion = languages lost = 4000-9000 languages since the 15th century
  - \* Today the 15 most commonly spoken languages are spoken by half the worlds population, the top 100 by 90%
  - \* Most of these languages are European

- \* Mandarin Chinese is the most spoken first language (1.6 billion)
- \* English is the second most spoken first language but the first most spoken second language
- \* 80% of the worlds languages are spoken only in their country of origin
- \* A lot of countries require education to be in the most dominant language (Canadian Natives learning in English)
- \* Can having a single language help create a national identity?



# Language Loss

- \* Culture is tied to language, lost language = lost culture
- \* Anthropologists view language loss (cultural loss) equal to biodiversity loss
- \* The answer? Promote multilinguistic environment, estimated that  $\frac{2}{3}$  of the worlds children are growing up in multilinguistic homes

## Top Ten Languages Used in the Web

( Number of Internet Users by Language )

TOP TEN LANGUAGES IN THE INTERNET	% of all Internet Users	Internet Users by Language	Internet Penetration by Language	Language Growth in Internet ( 2000 - 2007 )	2007 Estimated World Population for the Language
<u>English</u>	30.1 %	379,529,347	18.8 %	167.3 %	2,022,629,545
<u>Chinese</u>	14.7 %	184,901,513	13.6 %	472.4 %	1,356,701,170
<u>Spanish</u>	9.0 %	113,463,158	25.4 %	359.7 %	446,648,991
<u>Japanese</u>	6.9 %	87,540,000	68.7 %	85.9 %	127,433,494
<u>French</u>	5.1 %	63,761,141	15.6 %	422.7 %	407,819,872
<u>German</u>	4.9 %	61,912,361	64.2 %	123.5 %	96,403,511
<u>Portuguese</u>	4.0 %	50,828,760	21.4 %	570.9 %	237,003,607
<u>Arabic</u>	3.7 %	46,359,140	13.2 %	1,575.9 %	350,965,119
<u>Korean</u>	2.7 %	34,430,000	47.6 %	80.8 %	72,346,515
<u>Italian</u>	2.6 %	33,143,152	57.0 %	151.1 %	58,178,115
<b>TOP 10 LANGUAGES</b>	<b>83.7 %</b>	<b>1,055,868,572</b>	<b>20.4 %</b>	<b>221.4 %</b>	<b>5,176,129,939</b>
Rest of the Languages	16.3 %	206,164,125	14.4 %	534.8 %	1,430,840,227
<b>WORLD TOTAL</b>	<b>100.0 %</b>	<b>1,262,032,697</b>	<b>19.1 %</b>	<b>249.6 %</b>	<b>6,606,970,166</b>

**\* Should we (you) care about language loss and the associated loss of culture or is this just evolution?**

**\* In small groups reach a consensus**

**\* Brainstorm 3 arguments to support your position**