

PUNS!



by Jenna Zeigen a.k.a. @zeigenvector



Web designers



JS Puns @jspuns · 15 Jul 2013

JS on the server? No Duh!

RETWEETS

4

FAVORITES

4



11:23 PM - 15 Jul 2013 · Details



...

Puns!

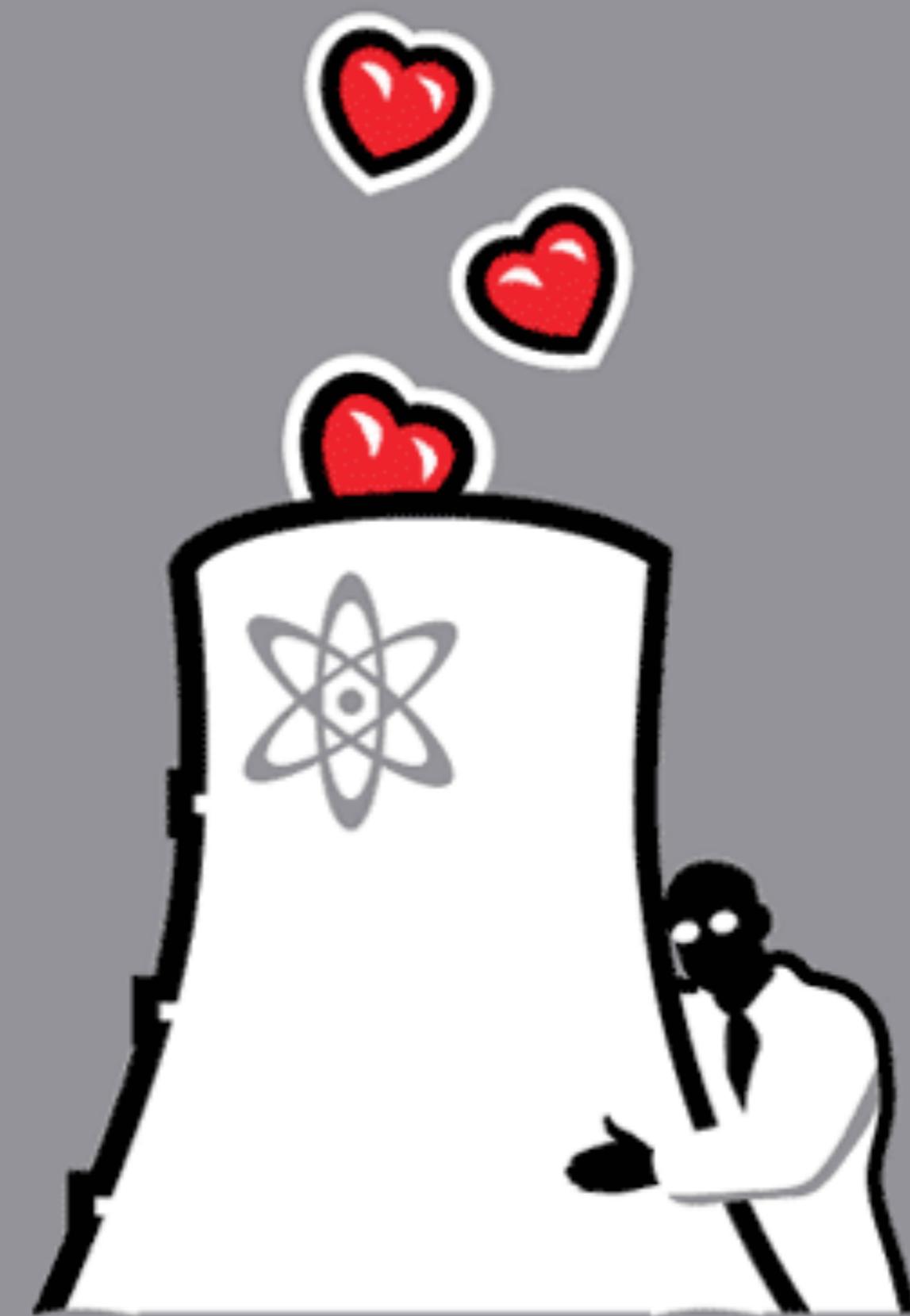
haha

Puns!

“Puns”







SCIENCE!

Lexical Ambiguity



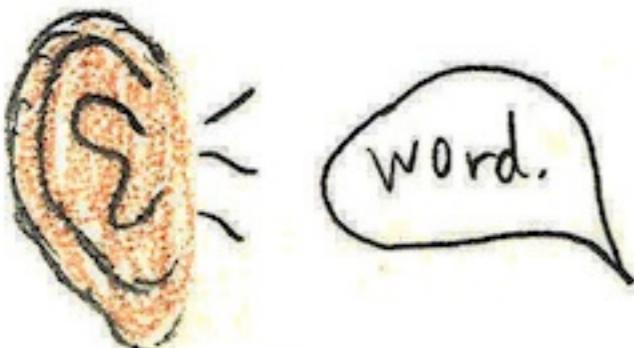
Words

Not quite sure...

Words that sound the same or are spelled the same can mean different things



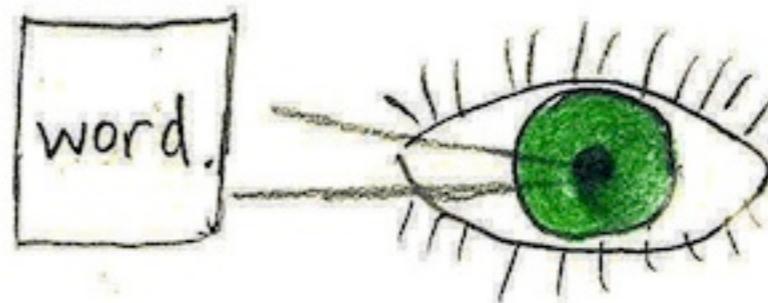
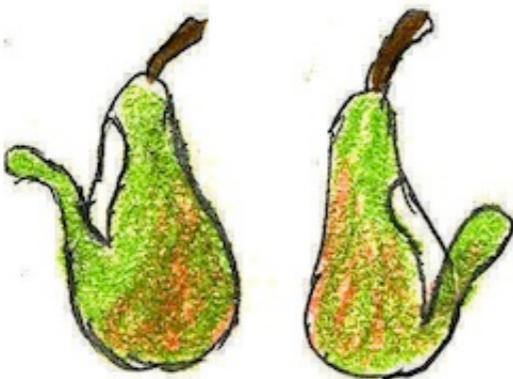
Lexical Ambiguity



Homophones

Two or more words that sound the same

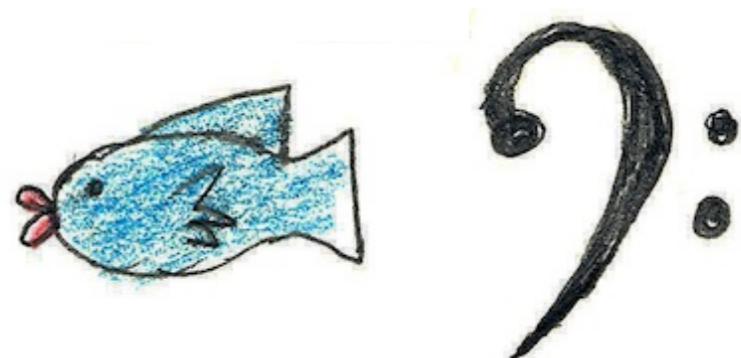
i.e. pair/pear/pare



Homographs

Two or more words that are spelled the same

i.e. bass



CANT GO FISHING



So how do we know what anything means?

Lexical Ambiguity Resolution

Words

Not quite sure

We figured it
out!

Lexical Ambiguity Resolution

Words

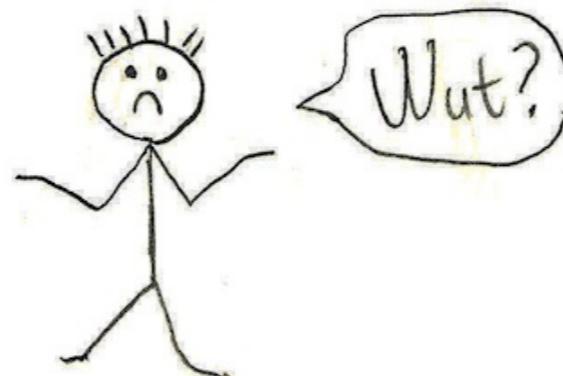
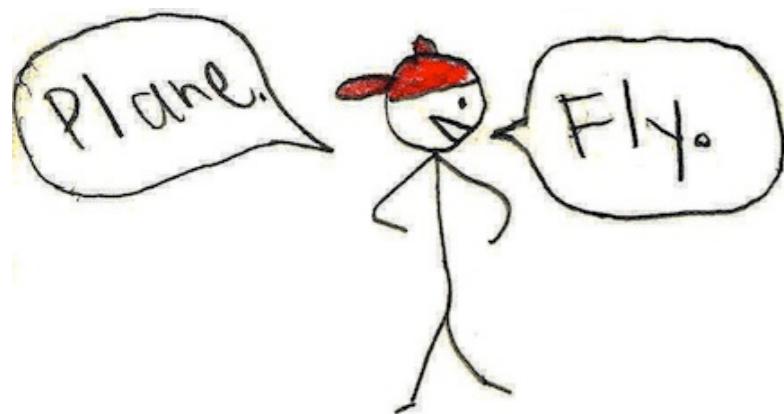
Not quite sure

We figured it
out!

The process by which we select the right meaning for an ambiguous word

Lexical Ambiguity Resolution

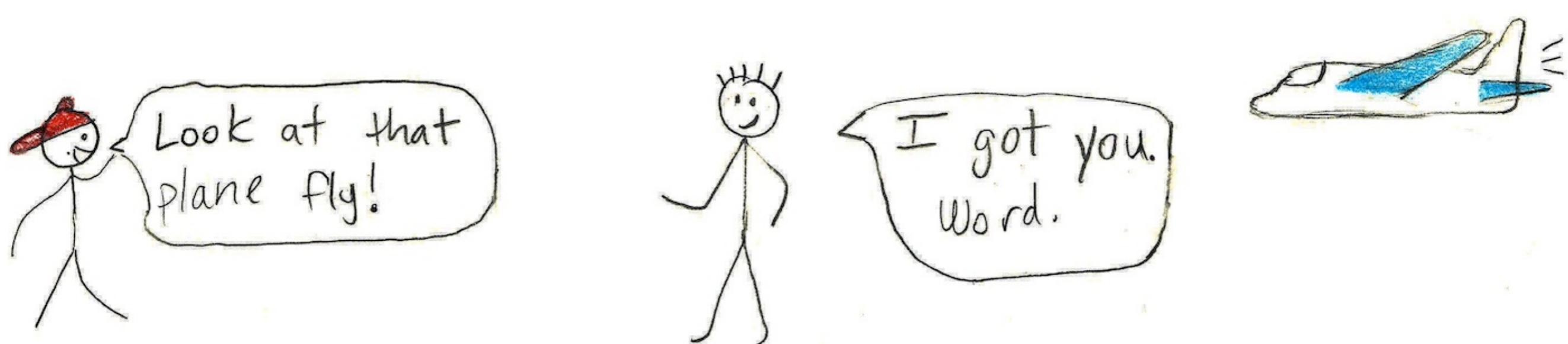
We rarely encounter language without any **context** whatsoever.



← Not a real scenario.

Lexical Ambiguity Resolution

We rarely encounter language without any **context** whatsoever.



Lexical Ambiguity Resolution

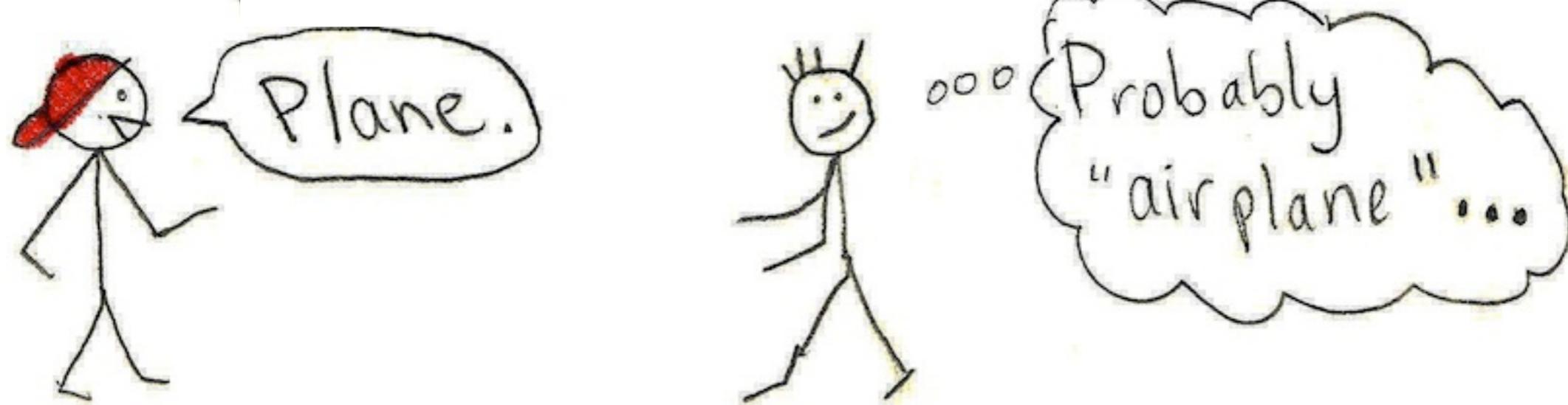
Our experience with languages gives us an excellent sense of what people probably mean



Lexical Ambiguity Resolution

Some words occur more frequently than other words

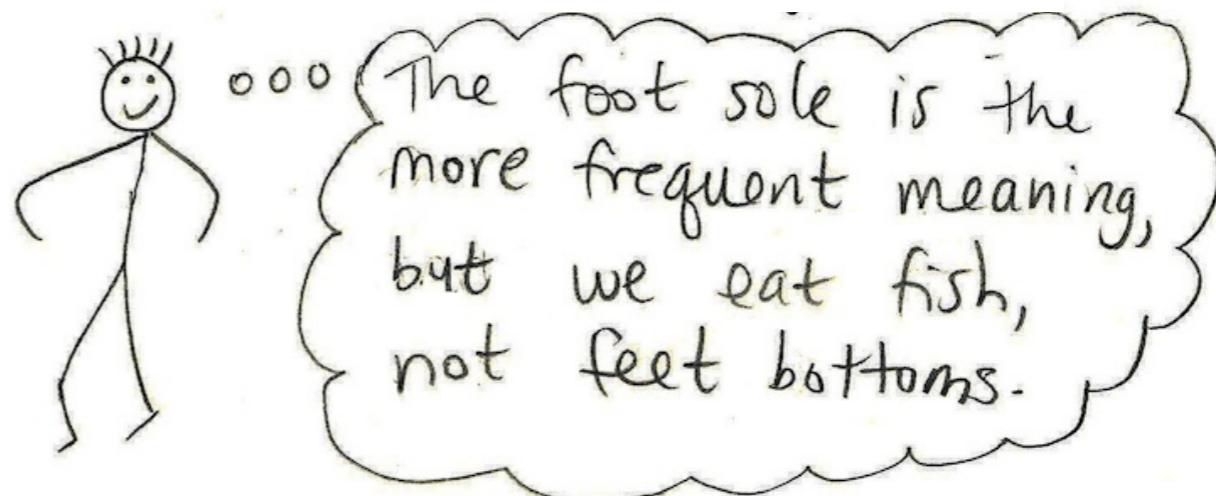
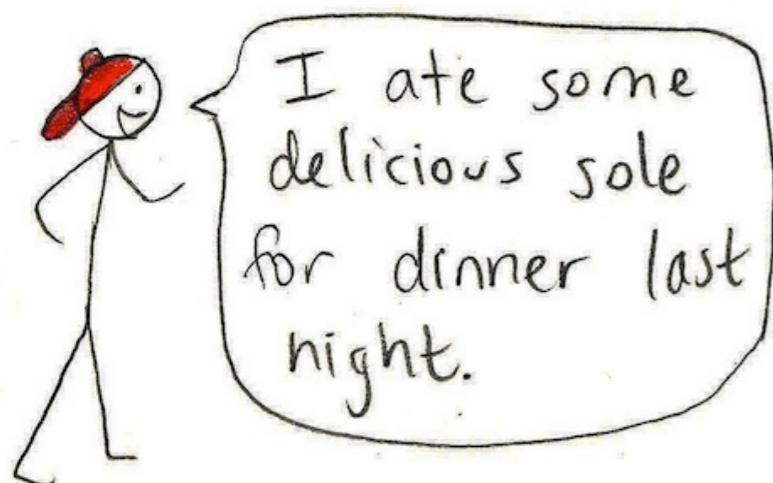
Dominant vs. subordinate meanings:



(jets vs. geometry)

Lexical Ambiguity Resolution

context + frequency



Disclaimer: not a real list

Lexical Ambiguity Resolution

Sometimes, more than one meaning fits into a context...

Lexical Ambiguity Resolution

Sometimes, more than one meaning fits into a context...



PUNS!

“The butcher backed up into the meat grinder and got a little *behind* in his work.”

PUNS!

“The **pun**, also called **paronomasia**, is a form of word play that suggests two or more meanings, by exploiting multiple meanings of words, or of similar-sounding words, for an intended humorous or rhetorical effect.”

- Wikipedia

WHAT DO YOU CALL
A PILE OF CATS?



A MEOWTAIN

PORUCZ.COM

PUNS!

Jenna Zeigen, pun expert...

PUNS!

Jenna Zeigen, pun expert...

“The businessman was whistling while trying to get into his apartment but he couldn’t find the right key.”

“The programmer who was afraid of insects was unhappy to find that her project was full of bugs.”

How do we process puns?



“The businessman was whistling...

How do we process puns?



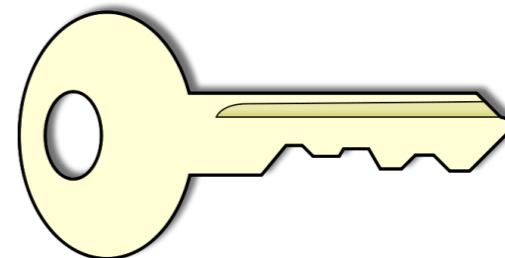
“The businessman was whistling while trying to get into his apartment...



How do we process puns?



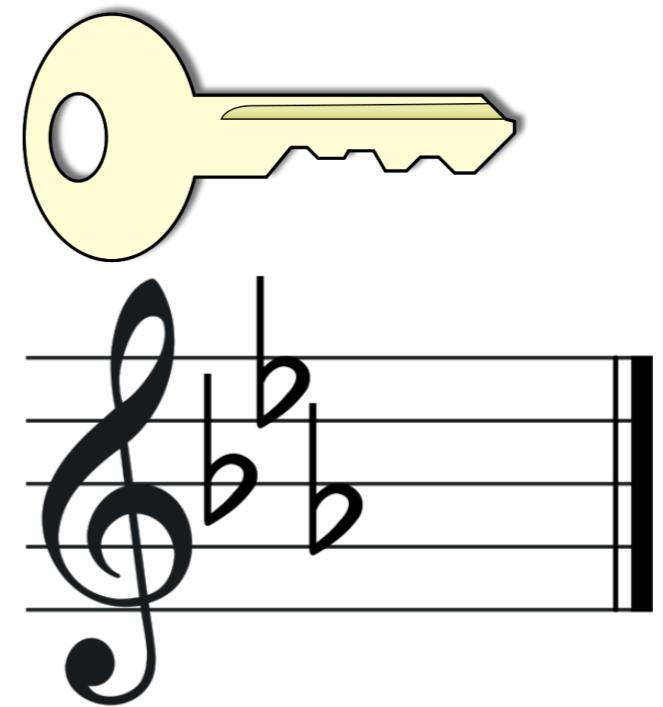
“The businessman was whistling while trying to get into his apartment but he couldn’t find the right key.”



How do we process puns?



“The businessman was whistling while trying to get into his apartment but he couldn’t find the right key.”



How do we process puns?

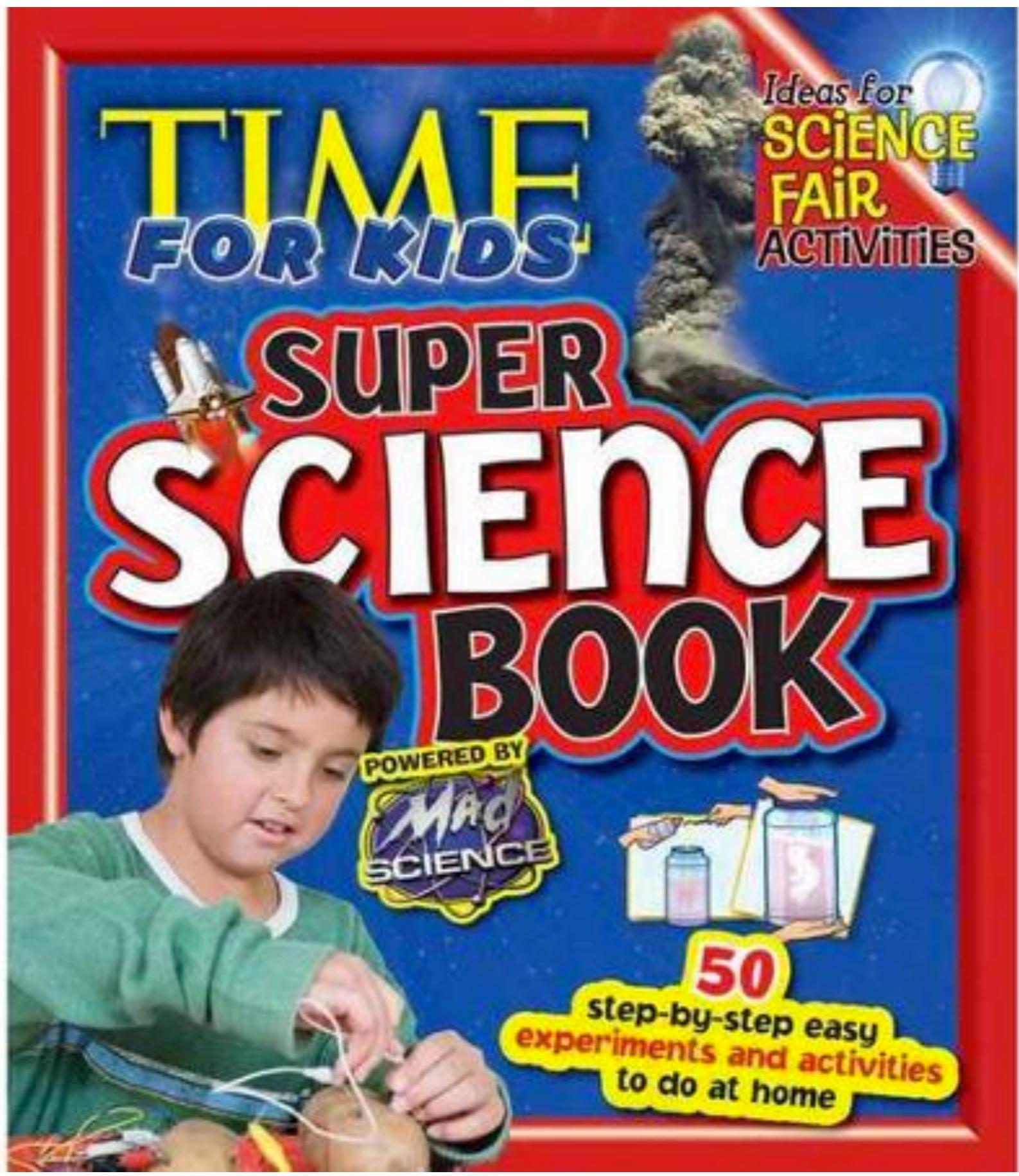
It's all about the bass.

CANT GO FISHING

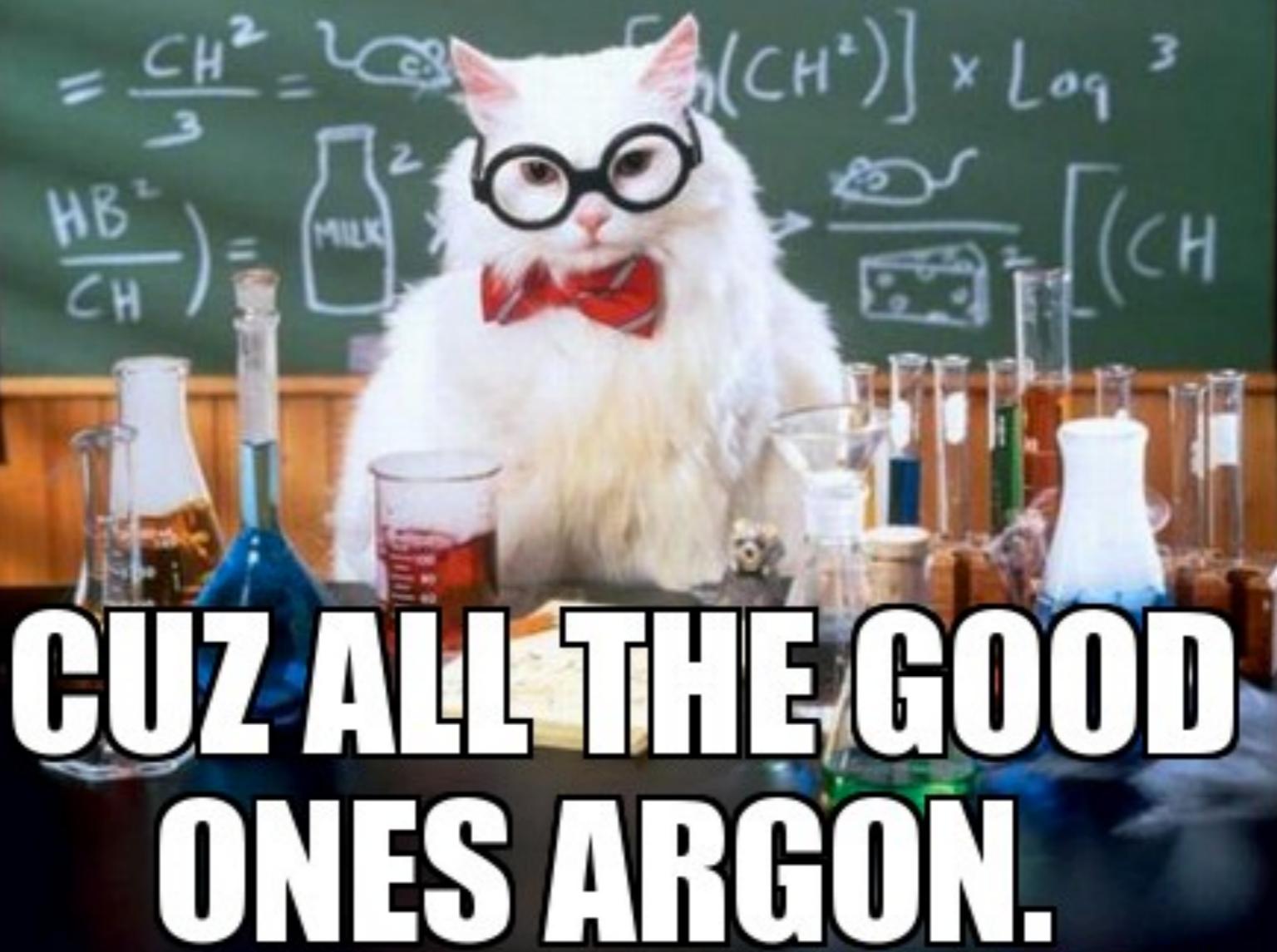


How do we process puns?

It's all about the ~~bass~~ **dominant** vs.
subordinate meanings.



**NO ONE HAS ANY GOOD
SCIENCE JOKES**

A white cat with black-rimmed glasses and a red bow tie is sitting at a wooden lab bench. Behind the cat is a chalkboard covered in various scientific equations and diagrams, including one labeled "MILK". On the lab bench in front of the cat are several pieces of laboratory glassware containing different colored liquids.

**CUZ ALL THE GOOD
ONES ARGON.**

How do we process puns?

“Lexical Decision Task”

How do we process puns?

“Lexical Decision Task”

Words

But is it actually?

How do we process puns?

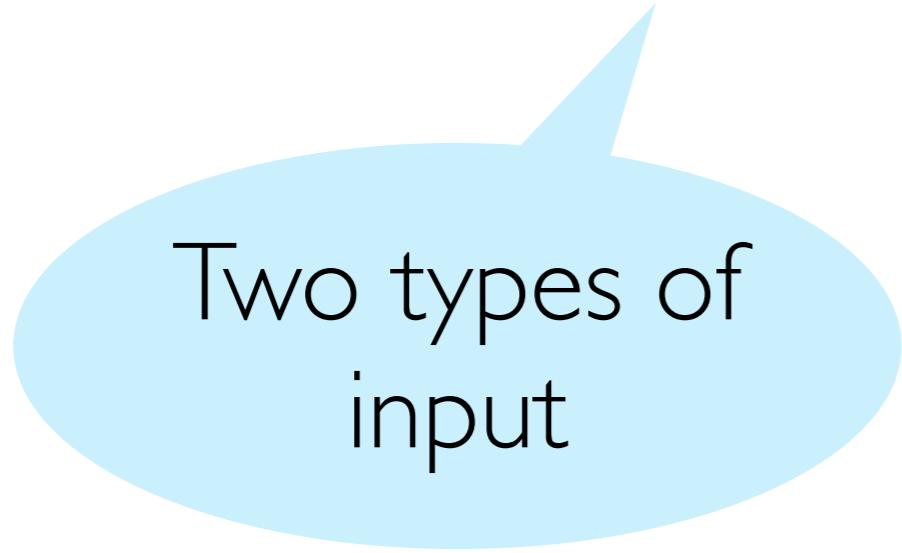
“Lexical Decision Task”

“Cross-Modal Priming”

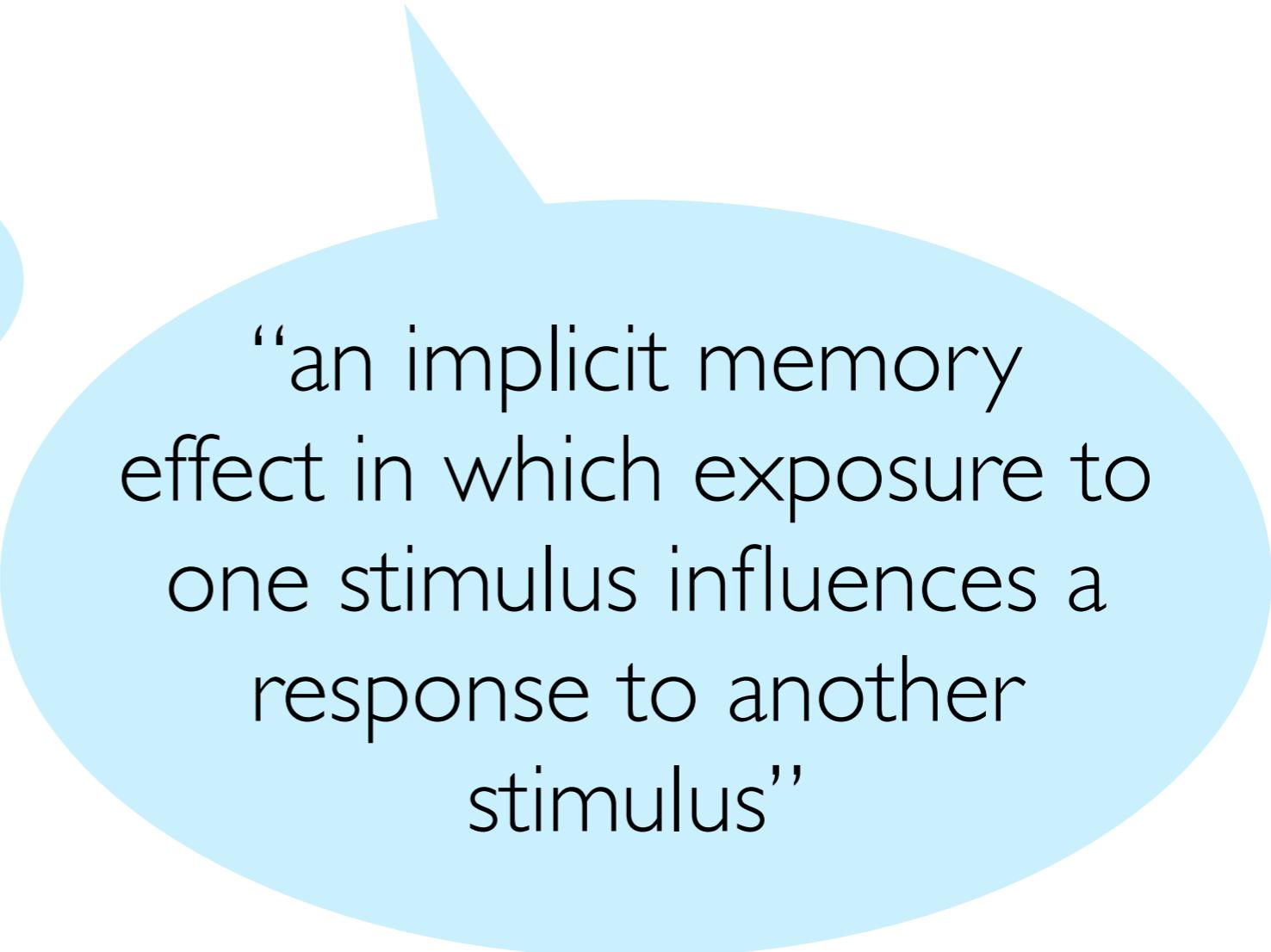
How do we process puns?

“Lexical Decision Task”

“Cross-Modal Priming”



Two types of input



“an implicit memory effect in which exposure to one stimulus influences a response to another stimulus”

How do we process puns?



“The businessman was **whistling** while trying to get into his **apartment**, but he just couldn’t find the right **key**. ”

How do we process puns?



“The businessman was **whistling** while trying to get into his **apartment**, but he just couldn’t find the right **key**. ”

0 ms



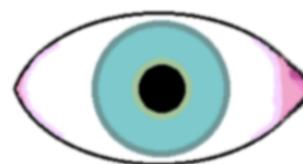
lock/tune

How do we process puns?



“The businessman was **whistling** while trying to get into his **apartment**, but he just couldn’t find the right **key**. ”

0 ms



lock/tune



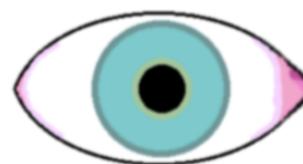
Word vs. Nonword?

How do we process puns?



“The businessman was **whistling** while trying to get into his **apartment**, but he just couldn’t find the right **key**. ”

300 ms



lock/tune



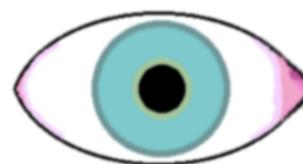
Word vs. Nonword?

How do we process puns?



“The businessman was **whistling** while trying to get into his **apartment**, but he just couldn’t find the right **key**. ”

700 ms



lock/tune



Word vs. Nonword?

How do we process puns?

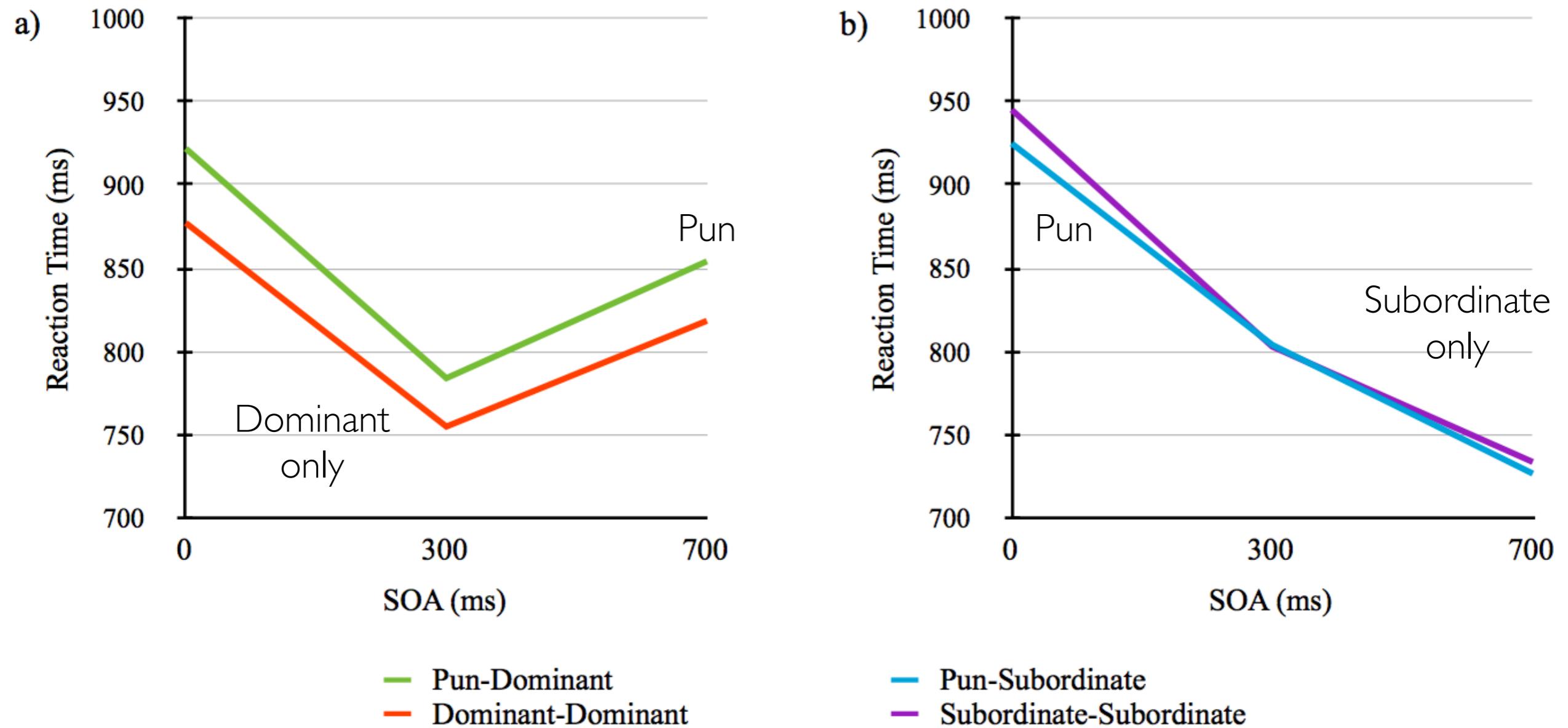
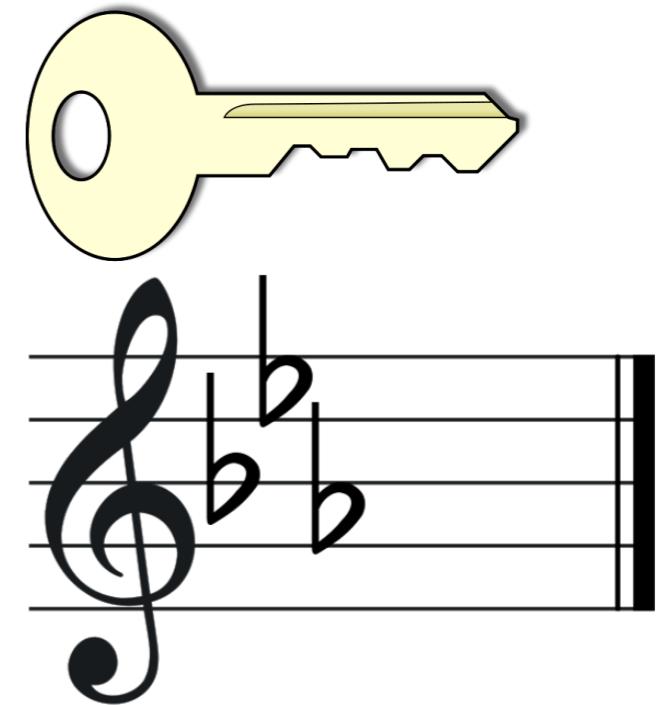


Fig. 4. Mean raw reaction times (in ms) from Experiment 1 for trials in which the meaning of the probe was supported by the context of the sentence.

How do we process puns



“The businessman was whistling while trying to get into his apartment but he couldn’t find the right key.”



What makes a pun funny?

What makes a pun funny?

Incongruity!

What makes a pun funny?

Incongruity!

Humor is “a problem-solving task, where incongruity between the punch line and the set-up line must be solved”

What makes a pun funny?

Incongruity!

The Funny Thing About Incongruity: A Computational Model of Humor in Puns

Justine T. Kao¹ (justinek@stanford.edu), **Roger Levy²** (rlevy@ucsd.edu), **Noah D. Goodman¹** (ngoodman@stanford.edu)

¹Department of Psychology, Stanford University. ²Department of Linguistics, UC San Diego.

Abstract

Researchers showed the robot ten puns, hoping that one of them would make it laugh. Unfortunately, no pun in ten did.

What makes something funny? Humor theorists posit that incongruity—perceiving a situation from different viewpoints and finding the resulting interpretations to be incompatible—contributes to sensations of mirth. In this paper, we use a computational model of sentence comprehension to formalize incongruity and test its relationship to humor in puns. By combining a noisy channel model of language comprehension and standard information theoretic measures, we derive two dimensions of incongruity—ambiguity of meaning and distinctiveness of viewpoints—and use them to predict humans' judgments of funniness. Results showed that both ambiguity and distinctiveness are significant predictors of humor. Additionally, our model automatically identifies specific features of a pun that make it amusing. We thus show how a probabilistic model of sentence comprehension can help explain essential features of the complex phenomenon of linguistic humor.

Keywords: Humor; language understanding; probabilistic models

Language understanding in general, and particularly humor, relies on rich commonsense knowledge and discourse understanding. To somewhat limit the scope of our task, we focus on applying formalizations of incongruity to a subset of linguistic humor: puns. Writer and philosopher Henri Bergson defined a pun as “a sentence or utterance in which two ideas are expressed, and we are confronted with only one series of words.” This highlights the fact that one sentence must evoke two different interpretations in order to be a pun, which aligns with the concept of incongruity as a requisite of humor.

We develop our model on homophone puns—puns containing words that sound identical to other words in the English language—because the space of possible interpretations of a homophone pun is relatively constrained and well-defined. An example helps to illustrate:

“The magician got so mad he pulled his hare out.”

This sentence allows for two interpretations:

What makes a pun funny?

Incongruity!

“Researchers showed the robot ten puns, hoping that one of them would make it laugh. Unfortunately, no pun in ten did.”

What makes a pun funny?

Incongruity!

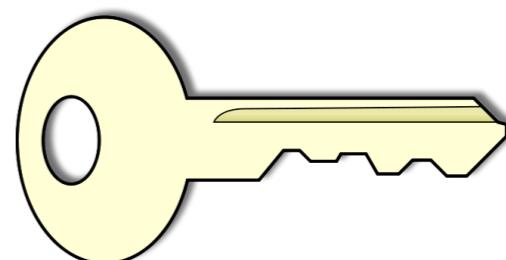
“[S]entences become funnier as they increase in ambiguity and distinctiveness. These results suggest that our measures of incongruity capture an important aspect of humor in pun sentences.”

What makes a pun funny?

Incongruity!



“The businessman was whistling while trying to get into his apartment but he couldn’t find the right key.”

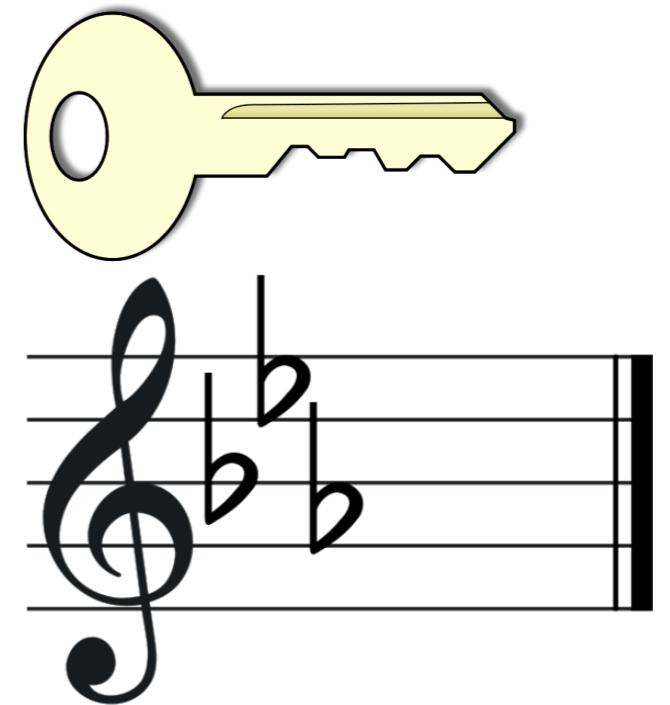


What makes a pun funny?

Incongruity!



“The businessman was whistling while trying to get into his apartment but he couldn’t find the right key.”



What makes a pun funny?

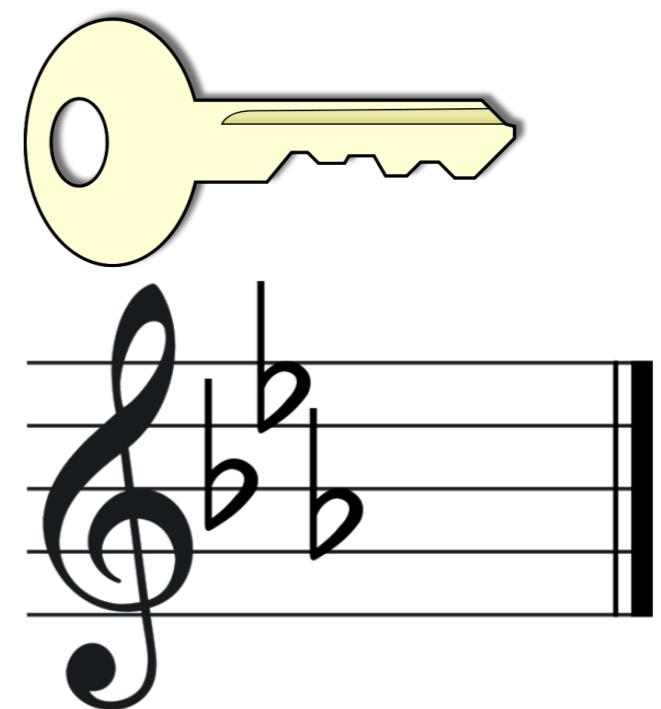
Incongruity!



“The businessman was whistling while trying to get into his apartment but he couldn’t find the right key.”



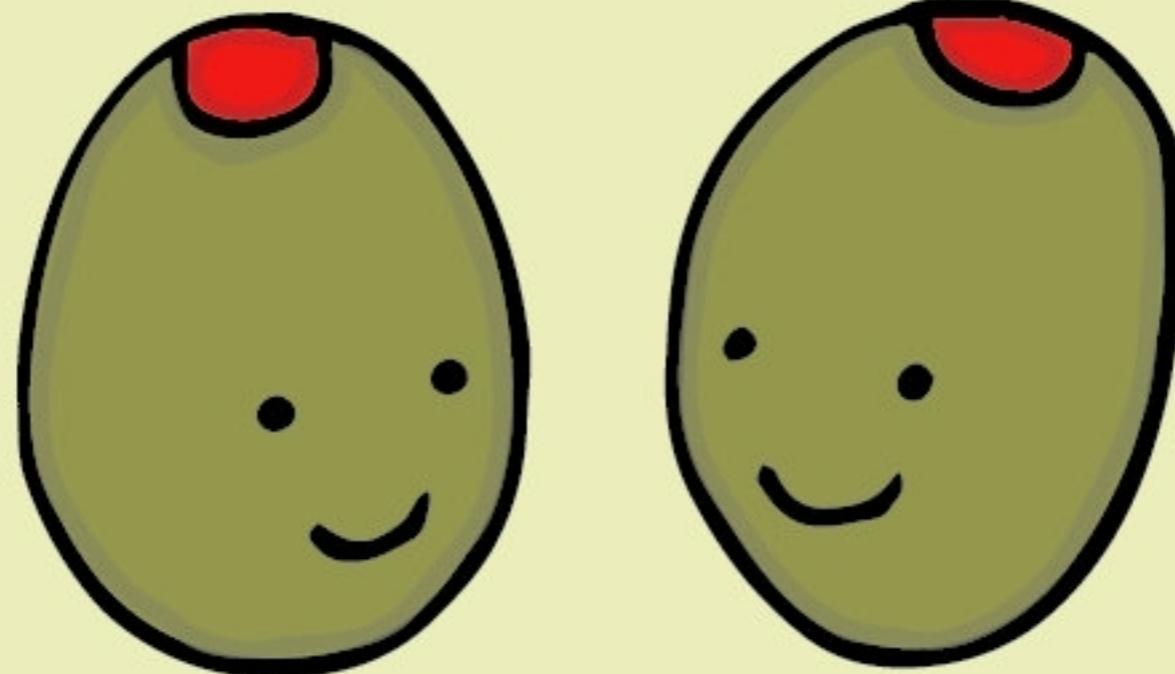
LOLOLOLOL!!



Slides: <http://jenna.is/manhattanjs-puns.pdf>

Twitter: @zeigenvector

OLiVE YOU.



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