

## When sentence meanings are not literal

- Parsing works to determine the syntactic structure of a sentence, and thus its literal meaning.
- But many sentences are not taken literally.
  - Metaphors
  - Idioms
  - Those that are taken to mean something else by convention
- Are these harder to understand?
  - If so, they will be the most problematic for children & clinical groups.

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## Metaphors

*John's head is full of rocks*

Metaphors usually are literally anomalous – but we rarely have difficulty understanding them.

Why not? Or, how do we comprehend them?

Example from DW Carroll (1999) *Psychology of language*, 3rd ed

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## Parts of metaphors

- A metaphor generally has three parts
  - Its topic
  - The vehicle
  - The ground

*“Billboards are warts on the landscape”*

Example from Verbrugge & McCarrell, 1977

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### Parts of metaphors, cont.

- If this type of analysis is correct, it suggests that listeners use the tenor & vehicle to infer the ground, which is what the person is actually trying to get across.

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### How do we comprehend metaphors?

- Verbrugge and McCarrell
- In the memory task, they prompted the Ss with either
  - the topic (“*the one about billboards*”)
  - the vehicle (“*the one about warts*”)
  - or the ground, which was never explicitly given

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### A proposal

- Three-stage process
  - We first interpret the sentence literally
  - We then decide that the literal meaning isn’t appropriate
  - We then search for an alternative meaning, transforming it into an implicit similarity statement of the form A is like B.
- Implications if correct:
  - The literal meaning is always present and is first.
  - The metaphorical meaning
    - Will only be present when the literal meaning is insufficient
    - Will appear later

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### Testing the three-stage process

- But results suggest that metaphors take no more time than literal statements.
- Moreover, metaphors are not optional
  - Glucksberg and colleagues:
    - Is this literally true? *All jobs are jails.*

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### Alternative proposal

- Even when a statement is literally true, the meaning a concept will still vary with context.
  - The container held apples*
  - The container held the cola*
- This process is no different for metaphors than for literal speech.

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### Conceptual blending

- A subset of the attributes from the source and target domains are imported into a blended space where they can be combined.
- This explains why is insulting to call a surgeon a "butcher" -- even though meat-cutters are not customarily considered incompetent.

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### Conceptual blending, cont.

- A sentence will be more difficult when
  - you have to establish mappings between more distantly related domains
  - you need to include more background knowledge to bridge the two domains

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### Conceptual blending, cont.

*That stone we saw in the natural history museum is a gem.*

*The ring was made of tin, with a pebble instead of a gem.*

*After giving it some thought, I realized the new idea was a gem.*

- “Gem” is a metaphor only in the 3<sup>rd</sup> case – an idea, like a gem, can have clarity and beauty.
- But the 2<sup>nd</sup> case, although completely literal, is going to require a more distant mapping than the first.

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### ERP study

- N400
  - amplitude indexes ease or difficulty of semantic integration.
- The authors found a gradient of difficulty.
  - A continuum of difficulty in mappings, with metaphors differing only in quantity, not quality.

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## Idioms

- Where a speaker's meaning cannot be derived from an analysis of the words' typical meanings.
  - "John let the cat out of the bag about Mary's divorce"
  - "Joe kicked the bucket last night."
  - "She doesn't know beans..."
  - "A barrel of monkeys..."

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## Types

- Non-decomposable
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  - Ex: *kick the bucket, shoot the breeze*
  - No syntactic flexibility
- Decomposable
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  - Ex: *let the cat out of the bag, sweep under the rug*

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## Idiom comprehension

- When processing an idiom, both the individual words are processed, and the combined meaning
- Syntax also matters - people are more likely to make blending errors on idioms with similar syntax ("That's the way the cookie bounces")

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### Idiom comprehension

- Is there some semantic basis for decomposable idioms?
  - That is, is the idea of “a one-night stand” related to standing in some way?
- If so, then an unfamiliar idiom in one language should be understood in a second language.

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### In-class test of this

- Which do you think is correct for each of these Japanese idioms involving the word stand?

*My teeth don't stand*

- It is within my capabilities
- It is beyond me

*The liquid stands easily*

- It is highly volatile
- It is very calm

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### In-class test, cont.

*The train stands*

- The train departs
- The train arrives

*Stand a rumor*

- Hear a rumor
- Start a rumor

*Wind stands*

- Decreases
- Increases

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## Experimental evidence

- Harrington
- English speakers had to learn Japanese idioms:
  - A true paraphrase
  - A false but plausible paraphrase
  - An antonym
- Subjects did better with true ones.
- Subjects did better with imagery.

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## Non-literal speech is quite common

Under the weather	Copy cat	Cry wolf
Badger someone	Cash cow	Dog eat dog
Bull in a china shop	Cat nap	Hold one's horses
Let sleeping dogs lie	Smell a rat	Get off one's high horse
Make a mountain out of a molehill		Take the bull by the horns
Make ends meet	By and large	Tail between one's legs
Skeleton in the closet	Knuckle down	At the end of his rope
Turn over a new leaf	'Fraidy cat	By the skin of one's teeth
Burning one's bridges	Black out dates	Watch what you eat
Eyes bigger than your stomach	Filthy rich	Far be it from me to...
Keep plugging away	Son of a gun	Take it for granted
Down in the dumps	Bottom line	The cat's got your tongue
Give him a piece of one's mind	How dare you	Put him in his place
For the most part	The jig is up	All of a sudden
Burn both ends of the candle		

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## Indirect speech acts

- A speech act in which the communicative meaning does not correspond to the literal meaning.
- Example: *Can you shut the door?*

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## Ways of making indirect speech acts

- Questioning the ability of the person who is to perform the action
  - Can you shut the door?
- Questioning the listener's willingness to perform the action
  - Will you shut the door?
- Indicating the reason why such an action needs to be done
  - It's getting cold in here.
  - I'm freezing
- Can only do these when the person addressed has the ability or willingness to do so.

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## Why does any of this matter?

- We frequently use non-literal sentences, and often are unaware that we do so.
- Although non-literal sentences may not be slower to process, many require additional learning, and some may be more taxing to comprehend in some cases.
- This may make them exceedingly difficult for individuals with language difficulties, or for children just learning language.

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