

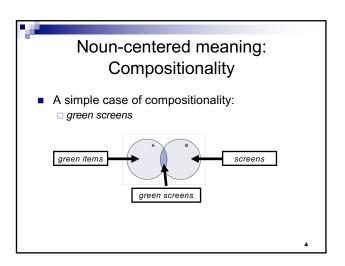
Compositionality

The Principle of Compositionality.
The meaning of a phrase or sentence depends both on the meaning of its words and how those words are combined.

Major exception: idioms.

She pulled her brother's leg.

He hit the nail on the head.



Sometimes more complex: Compositional meaning as the result of an interaction between the meanings of words plus context (i.e. pragmatics).

Noun-centered meaning: Interactions

(20) a. a red hat

b. a red book

c. a pink grapefruit

d. a red traffic light

e. a red pencil

f. red eyes

g. blue eyes

Noun-centered meaning: Collocations

 Certain (often non-semantic) restrictions on the way meanings can be combined: Collocations.

□ E.g. intensifiers like *great, heavy, high, utter, extreme* and *severe*.

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rain	_	+	-	_	_	_	_
wind	?	+	+	-	_	_	_
temperature	?	_	+	-	+	_	_
speed	+	_	+	-	?	_	_
surprise	+	_	_	+	+	-	_
distress	+	_	_	-	+	+	+
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Noun-centered meaning: Sense vs. reference

- (21) a. The Prime Minister flew to Paris last night.
 - b. *The leader of the Tories* flew to Paris last night.
- (22) They met the present Prime Minister yesterday.
- (23) Meaning of a noun phrase = sense (intension) + reference (extension) (Reference assignment: Pragmatics)

Verb-centred meaning

- (24) a. I will meet my friend at the castle.
 - b. My friend will meet me at the castle.
 - c. #I will meet the castle at the station.
 - d. #The castle will meet me at the station
- [+animate] *meet* [+animate]
- Property 1 of verbs: Verbs can impose semantic restrictions on other elements occurring in the same sentence.

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Verb-centred meaning: Thematic roles

- (25) a. John invited Mary.
 - b. *John invited.
 - c. John was dining.
 - d. *John was dining a pizza.
- Property 2 of verbs: Verbs influence the number of elements that occur in a sentence.
- A way to describe these relations between verbs and other elements: Thematic roles.
- Thematic roles: The part played by a particular entity in the situation described by the verb. Verbs assign thematic roles to other parts of a sentence.
- (25): Agent and theme.

Thematic roles

- (26) a. John likes football. (Experiencer-Theme)
 - b. The teacher gave Sue the book. (Agent-Goal-Theme)
 - c. Sue was given the book by the teacher. (Goal-Theme-Agent)
- (27) a. John opened the door.
 - b. The door opened.
- (27a): [+causative]: two thematic roles (27b): [-causative]: one thematic role
- (28) a. He is reading a book.
 - b. He is reading.
- A thematic role can sometimes be left implicit.

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Sentence meaning – Truth conditions

- Analysis of sentence meaning in terms of truth-conditional semantics.
- (29) a. The cat is on the mat.
 - b. True if:

There is some relevant feline occupying a specific position relative to an item of floor covering.

Meaning relation 1: Paraphrase

- Two sentences are paraphrases if they have the same truth conditions.
- (30) a. He must go. He is obliged to go.
 - b. It is easy to please John. John is easy to please.
 - c. I gave the summons to Chris. I gave Chris the summons.
 - d. The police chased the burglar.
 The burglar was chased by the police.
 - e. Emily sold the dress to Jane.Jane bought the dress from Emily.

Meaning relation 2: Entailment

- A sentence A entails a sentence B if the truth of A guarantees the truth of B. [N.B. Paraphrases: mutual entailment.]
- (31) a. The park wardens killed the tiger. entails The tiger is dead.
 - b. The brick is red. entails The brick is not white.
 - c. All dogs are purple. entails My dog is purple.
 - d. John is eating salmon. entails John is eating fish.

Entailments are lost under negation:

(32) John is not eating salmon.

Does not entail: John is eating fish.

Nor does it entail: John is not eating fish.

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Meaning relation 3: Presupposition

- A background assumption that must hold for a sentence to be appropriate.
- (33) a. He continued drawing.

 presupposes He was drawing before.
 - b. It is annoying that it is raining. *presupposes* It is raining.
 - c. My neighbour is on holiday. presupposes I have a neighbour.
- Speaker and listener may not always share a given presupposition.
- (34) Reporter: Mr Gandhi, what do you think of Western Civilization?

Gandhi: I think that it would be a very good idea.

. .

Entailment vs. presupposition

- A presupposition is maintained with negation (35) and questions (36), entailment is not.
- (35) He didn't continue drawing.

 presupposes He was drawing before. (vs. 32)
- (36) a. Did he continue drawing? *presupposes*: He was drawing before.
 - b. Did the park wardens kill the tiger?

 does not entail: The tiger is dead. (cf. 31a)

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Meaning relation 4: Contradiction

- A negative entailment: If one sentence is true, the other one must be false.
- (37) He is an orphan. contradicts His parents are alive.
- (38) I spit out the water I had swallowed.

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Meaning relation 5: Ambiguity

- One sentence with two (or more) sets of truth conditions.
- Ambiguity at the sentential level can be due to lexical ambiguity or structural ambiguity.
- (39) a. I saw him near the bank.
 - b. The little girl hit the child with the toy.

Lexical vs. structural ambiguity

(40)

RENEWABLE ENERGY?

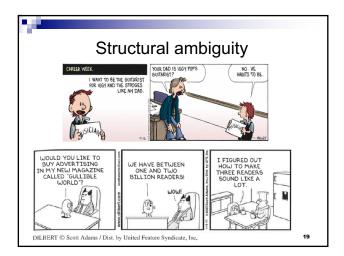
Public urged to keep track of squirrels with mobiles

Nor call the same property of the structural ambiguity

I'M A BIG FAN

THE A BIG FAN

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Structural ambiguity

(41) a. Bert: Speaking of names, I know a man with a wooden leg named Smith.

Uncle Albert: What's the name of his other leg?

- b. Killer Sentenced to Die for Second Time in 10 Years.
- c. Two cars were reported stolen by the Groveton police yesterday.
- *Teacher*: How can you prevent diseases caused by biting insects?

Student: Don't bite any.

e. Gov. Bill Walker has issued a disaster declaration in Alaska in response to Friday's earthquake, which was approved by President Donald Trump.

Structural ambiguity

- (41) e. Officers tried to calm the confrontation and arrested a man found in possession of a knife and
 - f. Shoe, darling... I wish you'd give up smoking for
 - Who ever said I was smoking for you?
 - g. Is the fish served here previously frozen or fresh?
 - Previously fresh.

