

# Presupposition<sup>1</sup>

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## 1 Overview

- §2 Intuitive definition
- §3 Presupposition triggers
- §4 Presuppositions in discourse
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- §6 Accommodation
- §7 Presuppositions in semantic composition
- §8 The complex case of *know*
- §9 Presuppositions and political framing

## 2 Intuitive definition

**General definition** The presuppositions of an utterance are the pieces of information that the speaker assumes (or acts as if she assumes) in order for her utterance to be meaningful in the current context. This broad characterization encompasses everything from general conversational norms to the particulars of how specific linguistic expressions are construed.

**Pragmatic presuppositions** Pragmatic presuppositions include the preconditions for linguistic interaction (for example, the mutual public knowledge that we are speaking the same language), the norms of turn-taking in dialogue, and more particularized information about conversational plans and goals.

**Semantic presuppositions** Semantic (*conventional, lexical*) presuppositions are part of the encoded meanings of specific words and constructions, called *presupposition triggers*.

**Accommodation (for more details, see sec. 6)** Speakers routinely presuppose things that have not already been established as part of the common ground. When they do this, they are implicitly asking the other discourse participants to *accommodate* (Lewis 1979) that information, by adding it to the common ground, or at least by adding to the common ground that the speaker is publicly committed to that information for the purposes of the current interaction. The ease with which this process happens depends on a great many factors. If the speaker is known to be knowledgeable and trustworthy, and the information is straightforward, then accommodation will be easy (as when I say to a stranger “My dog is energetic”). At the other end of the spectrum, surprising information from untrustworthy sources might bring conversation to a halt (as when a student says “My giraffe ate my homework”).

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<sup>1</sup>This handout is partly derived from a handbook article I wrote called ‘Presupposition and implicature’, for *The Handbook of Contemporary Semantic Theory*, 2nd ed.: <http://www.stanford.edu/~cgpotts/manuscripts/potts-blackwellsemantics.pdf>.

### 3 Presupposition triggers

- (1) The dog is grumpy.
  - a. Presupposes: there is a unique salient dog  $d$
  - b. Asserts:  $d$  is grumpy
- (2) Ed realizes that it is Wednesday.
  - a. Presupposes: it is Wednesday
  - b. Asserts: Ed is aware that it is Wednesday
- (3) Why did you murder Prof. Jones?
  - a. Presupposes: you murdered Prof. Jones
  - b. Queries: your reasons for the killing
- (4) Sam quit smoking.
  - a. Presupposes: Sam smoked in the past
  - b. Asserts: Sam does not smoke at present
- (5) Before Sam left, he sneezed.
  - a. Presupposes: Sam left at time  $t$ , where  $t$  is earlier than the time of evaluation
  - b. Asserts: prior to  $t$ , Sam sneezed
- (6) JOAN likes spinach too. (focal accent on JOAN)
  - a. Presupposes: some salient entity other than Joan likes spinach
  - b. Asserts: Joan likes spinach
- (7) “Confirm your eBay transaction” (spam email)
  - a. Presupposes: you have an eBay transaction  $e$
  - b. Requests: that you confirm  $e$

Harder cases to explicate:

- (8) “Are you really looking for a job?” (spam email)
- (9) There is no God and Dawkins is his prophet. (<http://richarddawkins.net/articles/1580>)
- (10) You deserve respect and will eventually get it. (real fortune cookie!)
- (11) “I haven’t seen *Evil Dead II* yet.” (*High Fidelity*)

## 4 Presuppositions in discourse

### 4.1 Backgrounding

In the prototypical case, presuppositions are already agreed upon as true before they are invoked. Accommodation creates many exceptions to this, but it's important that presuppositions always can be backgrounded without too much of a sense of redundancy:

- (12) a. I have a dog, and my dog has brown hair.  
b. It is Wednesday, and Ed realizes {that/that it is Wednesday}.  
c. Ed used to smoke, but he stopped smoking.

Compare with the redundancy of the non-presupposed (but perhaps still peripheral) content expressed by the italicized material in the following:

- (13) Otto Jespersen likes burgers, and Noam Chomsky likes cheese sandwiches. Otto, *#who likes burgers*, usually slathers them in catsup.

### 4.2 Hearer objections

Presuppositions are meanings that the speaker takes for granted and thus (acts as if she) assumes to be uncontroversial. Speakers might even go so far as to express certain pieces of information via presupposition triggers in order to signal what is and isn't up for debate. Thus, objecting to presuppositions can be difficult.

Standard denials are generally taken to *accept* presuppositions and target only the at-issue content. In (14), for example, the denials (14a–c) all seem to join (14) in presupposing that Sam smoked in the past.

- (14) Sam quit smoking.  
a. No/Wrong/Impossible.  
b. No, he didn't.  
c. I doubt it.

When speakers do want to object to presupposed content, they typically have to resort to more specialized forms that first disrupt the flow of the conversation in order to re-invoke the presupposed content as an item for discussion. Shanon (1976) studies such devices, using 'Hey, wait a minute' and its variants as prototypical examples (see also von Stechow 2004):

- (15) Sam quit smoking.  
a. Hey, wait a minute: I didn't know that Sam smoked!  
b. Just a second: Sam never smoked!

## 5 Presupposition projection

### 5.1 Negation

**Hypothesis N** If  $p$  is a presupposition of sentence  $S$ , then  $p$  is a presupposition of the negated version of  $S$  as well.

- (16) a. Sam stopped smoking. ( $p$  = Sam smoked in the past)  
b. Sam didn't stop smoking.
- (17) a. Ed realizes that it is Wednesday. ( $p$  = it is Wednesday)  
b. Ed doesn't realize that it is Wednesday.
- (18) a. My dog is outside. ( $p$  = the speaker has a dog)  
b. It is not the case that my dog is outside

### 5.2 Interrogatives

**Hypothesis Q** If  $p$  is a presupposition of sentence  $S$ , then  $p$  is a presupposition of the interrogative version of  $S$  as well.

- (19) a. Sam stopped smoking. ( $p$  = Sam smoked in the past)  
b. Did Sam stop smoking?
- (20) a. Ed realizes that it is Wednesday. ( $p$  = it is Wednesday)  
b. Does Ed realize that it is Wednesday?
- (21) a. My dog is outside. ( $p$  = the speaker has a dog.)  
b. Is my dog is outside?

### 5.3 Conditional antecedents

**Hypothesis C** If  $p$  is a presupposition of sentence  $S$ , then  $p$  is a presupposition of any sentence of the form *if S, then S'*.

- (22) If Sam stopped smoking, then his marathon time should improve.

## 5.4 Testing potential triggers

- (23) It was Joan who stole the cookies. (cleft construction)
- a. someone stole the cookies      \_\_\_ presupposed    \_\_\_ asserted
- b. Joan stole the cookies      \_\_\_ presupposed    \_\_\_ asserted
- 
- (24) Sue believes that it is Tuesday.
- a. Sue believes that it is Tuesday.      \_\_\_ presupposed    \_\_\_ asserted
- b. it is Tuesday      \_\_\_ presupposed    \_\_\_ asserted
- 
- (25) Bart managed to pass the test.
- a. Bart passed the test      \_\_\_ presupposed    \_\_\_ asserted
- b. (roughly) Bart's passing the test defied expectations      \_\_\_ presupposed    \_\_\_ asserted
- 
- (26) Bart learned that Lisa passed the test.
- a. Lisa passed the test      \_\_\_ presupposed    \_\_\_ asserted
- 
- (27) Bart learned that our solar system has nine planets.
- a. our solar system has nine planets      \_\_\_ presupposed    \_\_\_ asserted

## 5.5 Why not turn them around?

The hypotheses above are all of the form ‘If  $p$  is a presupposition, ...’. That is, we need to assume presupposition status and see what follows. Strictly speaking, this means that the tests are useful only for *disconfirming* that  $p$  is a presupposition (via the *contrapositions*, i.e., the equivalent forms like ‘If  $p$  is not a presupposition of the negated version of  $S$ , then  $p$  is not a presupposition of  $S$ ’).

The following is a more powerful version of hypothesis N:

**Hypothesis N’** If  $p$  is expressed in the scope of negation in sentence  $S$  but  $p$  remains a commitment of  $S$ , then  $p$  is a presupposition of  $S$ .

We implicitly use such versions of the tests. However, we shouldn’t follow them blindly, else we will classify certain meanings as presupposed even where that seems wrong. For example:

- (28) a. Sam didn’t see Joan, who works in accounting, when he came in today.  
b. I don’t want any friggin’ broccoli in my dinner!
- (29) If Louise is tall and therefore intelligent, we should put her on our team!

Similar data for: honorifics (Japanese, Korean, and even titles like *Dr*, *Mrs*, and *President*), formal/familiar pronouns (German, French, Spanish), evidentials, and basically all of the stuff that Grice places under the heading of ‘conventional implicature’.

**Lesson** It’s okay to ‘turn the tests around’, as long as it is part of a larger argument in which one looks at a wide spectrum of data.

## 6 Accommodation

If a speaker utters a sentence  $S$  whose content presupposes a proposition  $p$  that is not entailed by the input information state, then hearers will adjust the input information state so that it entails  $p$ , in order to update the content of  $S$  successfully. (The more cautious hearer might update only with the proposition that the speaker is publicly committed to  $p$  and then in turn update with the proposition the speaker is publicly committed to  $\llbracket S \rrbracket$ .)

The following observations from Thomason (1990) help to identify the complex role that presupposition accommodation plays in communication:

In pragmatics, the plausibility of informal rules is diluted by the fact that they are routinely flouted. Because of this, well-motivated generalizations not only will have exceptions, but many of these exceptions will be so flagrant as to seem to undermine their ability to serve as linguistic generalizations. (p. 331; see also p. 332, bottom)

Worse still, in pragmatics we can take instances in which a rule is flouted to provide evidence of a sort for the rule. We can argue like this: “There must, in our society, be a rule against hanging up a telephone without closing the conversation, or people would not violate this rule to achieve an effect of snubbing.” (p. 333)

But this isn’t equivalent to having no principles at all. Accommodation is fundamentally

acting to remove obstacles to the achievement of desires or goals that we attribute to others. (p. 332).

And the act of removing the obstacles might be important:

The case in which a shopkeeper regularly marks off his goods for various ad hoc reasons is different from the case in which the goods have no price at all, even though the cash register receipts may be the same for the two cases. In the one case there is a rule established by a marked price, in the other there is not. (p. 332).

Pragmatics need not become “a methodological disaster area” (p. 334).

Our best hopes for fostering good interactions between evidence and theory in pragmatics, it seems to me, lie in concentrating on underlying reasoning mechanisms, and on adopting an interdisciplinary approach that spreads the sources of evidence wider than is common in linguistics. (p. 334)

We should focus on accommodation, in the broadest possible terms:

Concentrating on accommodation means shifting to reconstructed reasoning that underlies utterances. And it suggests that certain reasoning processes, such as intention recognition and cooperation, are central. Successful accommodation requires that we first recognize someone’s intention to achieve a goal, and then establish goals of our own that will assist in achieving this goal. (p. 334)

## 7 Presuppositions in semantic composition

### 7.1 Partial functions

A *total* function for domain  $D$  supplies a value for every element of  $D$ . We have so far studied only total functions as part of our theory of semantic composition. A (strictly) *partial* function for domain  $D$  supplies values only for a proper subset of  $D$ . For the rest, it is *undefined*.

$$(30) \quad U = \left\{ \begin{array}{c} \text{Lisa Simpson} \\ \text{Marge Simpson} \\ \text{Bart Simpson} \\ \text{Homer Simpson} \end{array} \right\}$$

Here are examples of partial functions: (31)–(33) with domain  $U$ , and (34) with its domain as the set of functions from  $U$  into truth values.

$$(31) \quad \left[ \begin{array}{c} \text{Lisa Simpson} \mapsto \text{F} \\ \text{Marge Simpson} \mapsto \text{F} \\ \text{Bart Simpson} \mapsto \text{T} \end{array} \right]$$

$$(32) \quad \left[ \begin{array}{c} \text{Lisa Simpson} \mapsto \text{T} \\ \text{Marge Simpson} \mapsto \text{T} \\ \text{Bart Simpson} \mapsto \text{F} \end{array} \right]$$

$$(33) \quad \left[ \begin{array}{c} \text{Homer Simpson} \mapsto \text{F} \end{array} \right]$$

(34)

$$\left[ \begin{array}{c} \left[ \begin{array}{c} \text{Lisa Simpson} \mapsto \text{T} \\ \text{Marge Simpson} \mapsto \text{F} \\ \text{Bart Simpson} \mapsto \text{F} \\ \text{Homer Simpson} \mapsto \text{F} \end{array} \right] \\ \left[ \begin{array}{c} \text{Lisa Simpson} \mapsto \text{T} \\ \text{Marge Simpson} \mapsto \text{T} \\ \text{Bart Simpson} \mapsto \text{F} \\ \text{Homer Simpson} \mapsto \text{F} \end{array} \right] \\ \left[ \begin{array}{c} \text{Lisa Simpson} \mapsto \text{F} \\ \text{Marge Simpson} \mapsto \text{T} \\ \text{Bart Simpson} \mapsto \text{F} \\ \text{Homer Simpson} \mapsto \text{F} \end{array} \right] \\ \left[ \begin{array}{c} \text{Lisa Simpson} \mapsto \text{F} \\ \text{Marge Simpson} \mapsto \text{F} \\ \text{Bart Simpson} \mapsto \text{F} \\ \text{Homer Simpson} \mapsto \text{F} \end{array} \right] \end{array} \right] \mapsto \left[ \begin{array}{c} \left[ \begin{array}{c} \text{Lisa Simpson} \mapsto \text{T} \\ \text{Marge Simpson} \mapsto \text{F} \\ \text{Bart Simpson} \mapsto \text{F} \\ \text{Homer Simpson} \mapsto \text{F} \end{array} \right] \\ \left[ \begin{array}{c} \text{Lisa Simpson} \mapsto \text{T} \\ \text{Marge Simpson} \mapsto \text{F} \\ \text{Bart Simpson} \mapsto \text{F} \\ \text{Homer Simpson} \mapsto \text{F} \end{array} \right] \\ \left[ \begin{array}{c} \text{Lisa Simpson} \mapsto \text{F} \\ \text{Marge Simpson} \mapsto \text{F} \\ \text{Bart Simpson} \mapsto \text{F} \\ \text{Homer Simpson} \mapsto \text{F} \end{array} \right] \\ \left[ \begin{array}{c} \text{Lisa Simpson} \mapsto \text{F} \\ \text{Marge Simpson} \mapsto \text{F} \\ \text{Bart Simpson} \mapsto \text{F} \\ \text{Homer Simpson} \mapsto \text{F} \end{array} \right] \end{array} \right]$$

**Caution!** With partial functions, we lose the correspondence between characteristic sets and functions. Given a set, we need to know which elements of the domain our function is defined for. Given a truth-valued function, we need the information about definedness when we move to a set.

## 7.2 The definite article as a partial function

Partee's (1995:317) proposed analysis of the definite article:

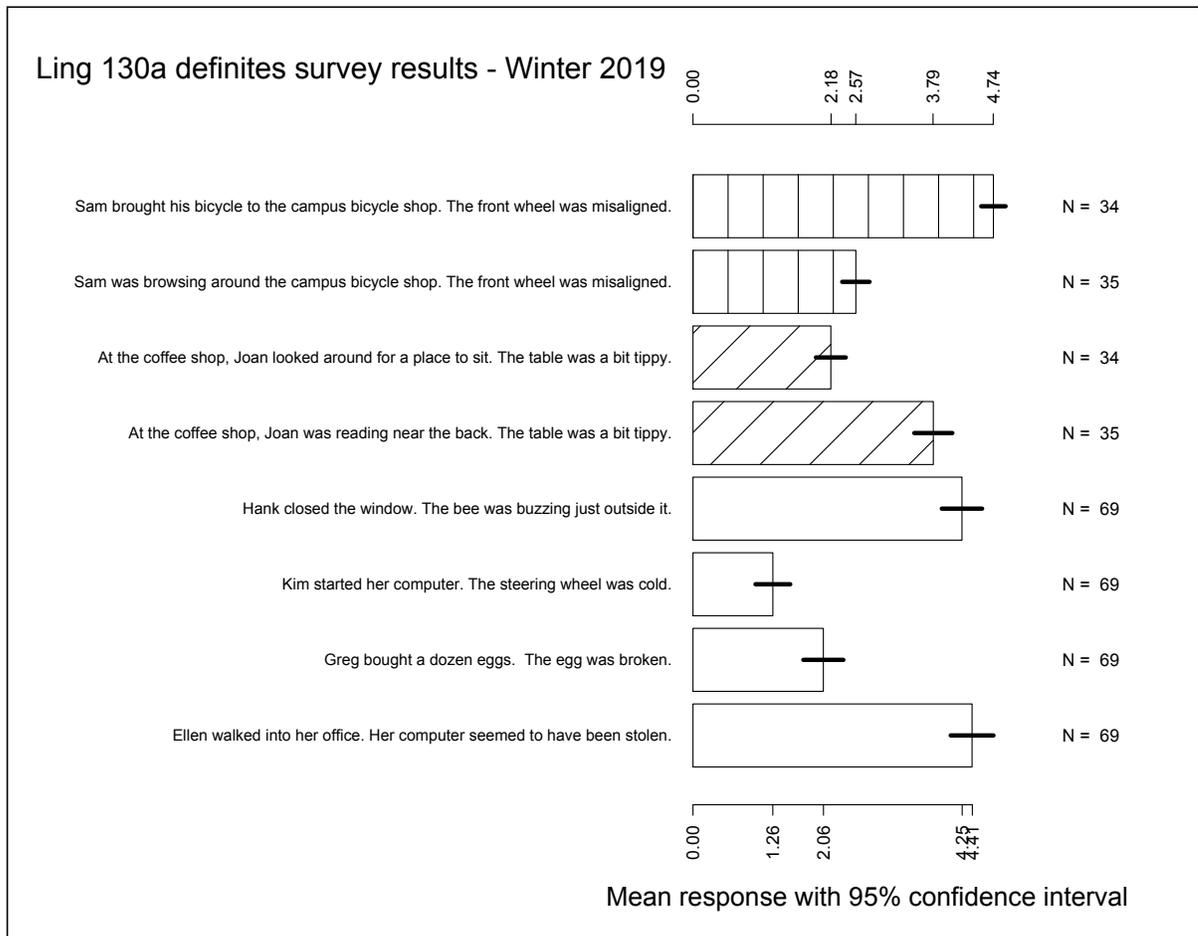
- (35)  $\llbracket the N \rrbracket =$  the individual  $a$  such that  $a$  is the one and only member of  $\llbracket N \rrbracket$ , if  $\llbracket N \rrbracket$  has one and only one member; undefined otherwise

Keenan's (1996:43) proposed analysis:

- (36)  $\llbracket the \rrbracket = \{ \langle A, B \rangle : |A| = 1 \text{ and } A \subseteq B \}$

Our in-class experiment 1 results challenge both analyses. How?

(37)



My proposed analysis:

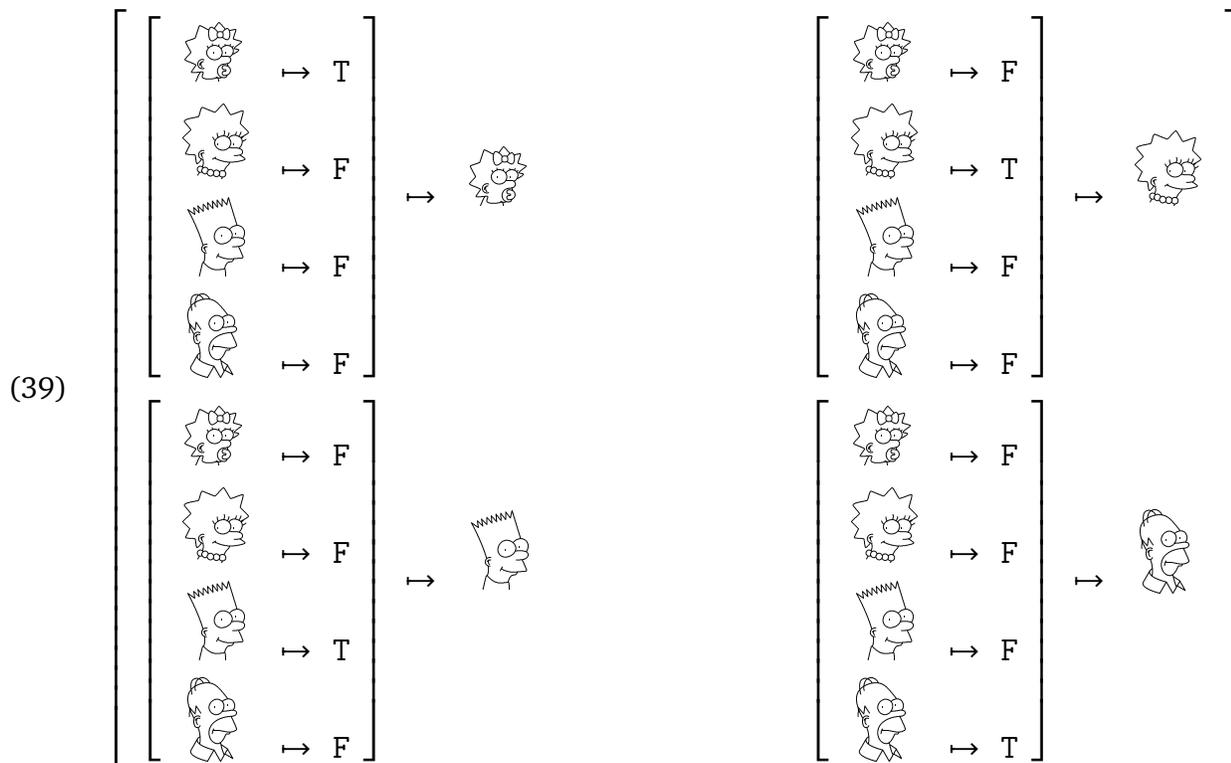
(38)  $\llbracket the \rrbracket$  is a function from functions from entities to truth values into entities

- a.  $\llbracket the \rrbracket(f)$  is defined if and only if there is a unique **salient** entity  $x$  such that  $f(x) = T$
- b. Where defined,  $\llbracket the \rrbracket(f) =$  an entity  $x$  such that  $f(x) = T$

**Note 1:** I stated the assertion part, (38b), using the indefinite article. This is pragmatically odd, since we know from (38a) that there is exactly one entity that has the property  $f$ . However, I like the slight infelicity because it highlights the fact that, assuming the presupposition (38a) is met, we don't need to worry about uniqueness in (38b).

**Note 2:** As I said earlier, I think it isn't solely up to linguists to figure out what notion of salience is involved here. Sorting it out would likely be an interdisciplinary project involving linguists, vision researchers, perception researchers, attention researchers, and others.

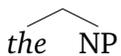
Assuming our little universe (30), we can fully depict the partial function described in (38):



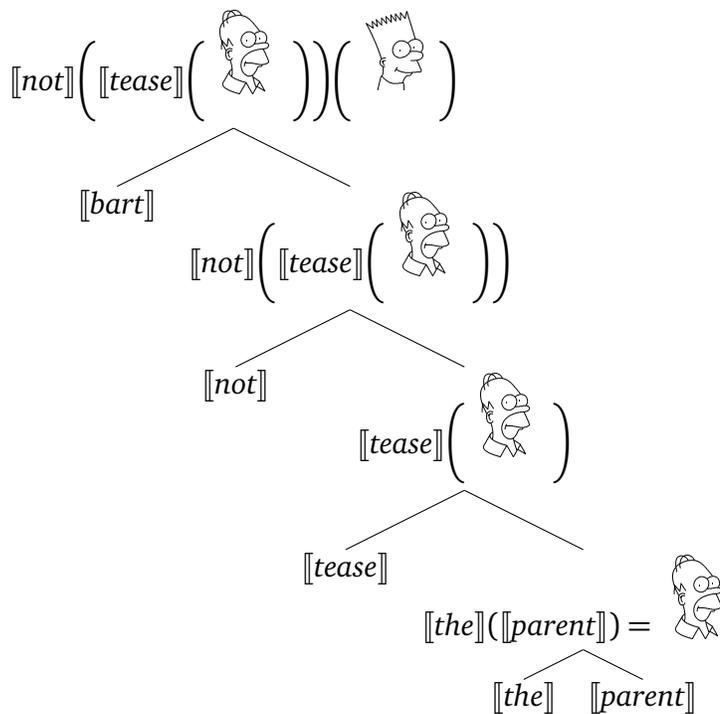
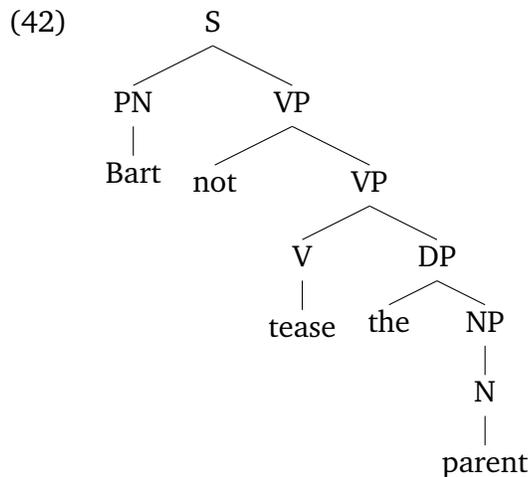
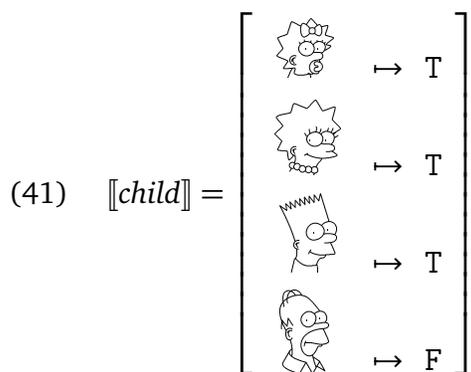
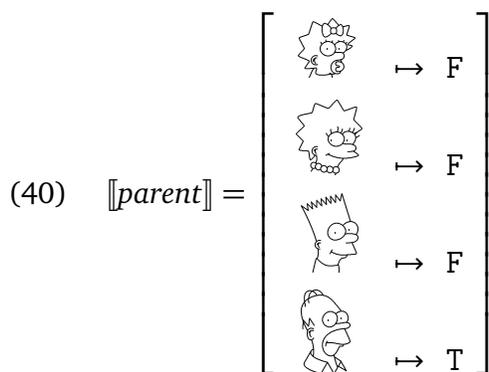
### 7.3 Deriving hypothesis N

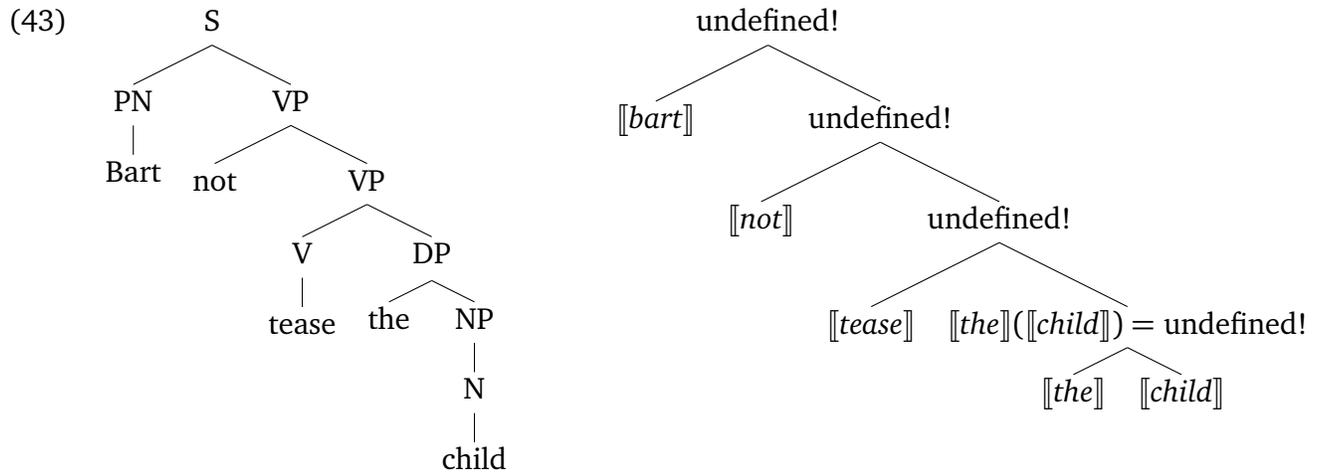
Hypothesis N follows from our decision to model presuppositions as partial functions and our theory of semantic composition:

(D) Given a syntactic structure DP,  $[[DP]] = [[the]]([[NP]])$



(S7) Given a syntactic structure VP,  $[[VP]] = [[V]]([[DP]])$





## 7.4 Presuppositional quantifiers

(44)  $\llbracket both \rrbracket$  is a quantificational determiner

- $\llbracket both \rrbracket(f)$  is defined if and only if  $|\{x : f(x) = T\}| = 2$
- Where defined,  $\llbracket both \rrbracket(f) = \lambda g (\{x : f(x) = T\} \subseteq \{x : g(x) = T\})$

Compare this with the analysis that Keenan (1996:43) gives, which puts the definedness conditions into the truth conditions, making *both* claims *false* where there are not exactly two members of the restriction. This conflicts with many intuitions from Assignment 2, problem 1:

- (45)
- Both times I went, the line was too long.
  - Two times I went, the line was too long.

Here, “both” and “two” differ in meaning. In the first example, there is the implication that I went only twice and that all of these times, the line was too long, while in the second example there’s no indication of how many total times I’ve gone or what percentage of the time was the line long.

(46) “Both” only appears to make sense in a context when there are exactly two objects in a given set total; “two” would make more sense in a context when there are more than two objects in a given set, although it can also be utilized in a context when there are exactly two objects in a given set.

- (47)
- I found both bags of chips in the cupboard.
  - I found two bags of chips in the cupboard.

The first sentence seems to presuppose that the speaker expected to find two bags of chips [...]. The second sentence does not appear to presuppose any number of bags of chips; in fact, it does not even presuppose that the speaker was searching specifically for bags of chips at all.

(48)  $\llbracket \textit{neither} \rrbracket$  is a quantificational determiner

a.  $\llbracket \textit{neither} \rrbracket(f)$  is defined if and only if

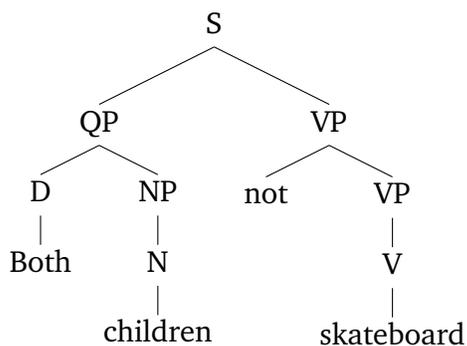
b. Where defined,  $\llbracket \textit{neither} \rrbracket(f) =$

(49) Refashion  $\llbracket \textit{the} \rrbracket$  as a quantificational determiner:

a.  $\llbracket \textit{the}_Q \rrbracket(f)$  is defined if and only if

b. Where defined,  $\llbracket \textit{the}_Q \rrbracket(f) =$

(50)



## 8 Does *know* have a factive presupposition?

The data are complex!

- (51) Sam didn't know/believe it was Wednesday.
- (52) Does Sam know/believe it is Wednesday.
- (53) If it is his birthday, Sam doesn't know that it is.
- (54) "That woman who knew I had dyslexia—I never interviewed her.' —New York Times, September 16, 2000 [George W. Bush speaking of Gail Sheely] [...] Overlooked in all the merriment was the statement's inadvertent confirmation of the Sheely thesis: "That woman who knew I had dyslexia" makes clear that the reporter got it right—otherwise, Bush would have used 'said' or "claimed'." —Mark Crispin Miller. 2001. *The Bush Dyslexicon*, p. 102.
- (55) "For the first time in history, the U.S. has gone to war with an Arab and Muslim nation, and we know a peaceful solution was in reach." —From a 1991 Wall Street Journal article "U.S. Hails Invasion Of Kuwait and Iraq As 'Dramatic Success'"
- (56) "Let me tell you something, when it comes to finishing the fight, Rocky and I have a lot in common. I never quit, I never give up, and I know that we're going to make it together." —Hillary Clinton, September 1, 2008.
- (57) "But I guess when you know something terribly important that the entire world thinks is hooley, it gets harder and harder to let it go." [The author is the target of a conspiracy theory, and this is a description of the conspiracy theorist's mental state.]

Confessions of a Non-Serial Killer. Conspiracy theories are all fun and games until you become the subject of one. By Michael O'Hare. <http://www.washingtonmonthly.com/features/2009/0905.ohare.html>

- (58) Solan & Tiersma, p. 67-68: "The suspect was being questioned about a mass murder case that took place at a Phoenix temple."

Interrogator: Now Victor, ah Leo, you know that that's right. I mean you're shakin' your head trying to convince yourself, you know, but you cannot erase what happened. You cannot erase what happened. You were there.

Suspect: No I wasn't.

Interrogator: You went there (unintelligible).

Suspect: I was not there!

Interrogator: You know who you were with.

Suspect: No I don't.

Interrogator: You know who the people were that were there and you know what you know about what happened.

Suspect: I don't know anything.

Interrogator: Sooner or later, you know, you've got to say it.

Suspect: I, I wasn't there, I was not there.

## 9 Framing

### 9.1 Framing is about choices

I want to communicate the proposition  $p$ . Which of the sentences  $S_1, \dots, S_n$  of my language should I utter to express  $p$ ?

- (59)
- Which  $S_i$  will make things easiest for me (for my listener)?
  - Which  $S_i$  will generate the right pragmatic meanings when its content interacts with the maxims?
  - Which  $S_i$  will frame the issue from my perspective?

### 9.2 Central tenets of framing (Lakoff 2004)

- (60)
- Every word has a frame.
  - Negating a frame evokes that frame. (cf. Hypothesis N)
  - Evoking a frame reenforces that frame.

### 9.3 Examples

- (61)
- Ed was relieved from his pain.
  - The pool hustler relieved Sally of her money.
  - hunger relief
  - We relieved Ed from his chores.
  - We relieved Ed from his vacation.
  - tax relief
  - relieve*

$x$	relieves	$y$	from	$z$
↑		↑		↑
reliever-of-pain		blameless afflicted		cause

- (62) “I am not a crook.”
- (63) Democratic party vs. Democrat party
- (64) war on terror/drugs/the environment
- (65) protect the environment
- (66) Some results of the Democratic research firm Fairbank, Maslin, Maullin, & Associates concerning effective language for The Nature Conservancy and The Trust for Public Land to use when trying to get its message of environmental stewardship across to the general public.
- DO stress “preserving” water quality.
  - DO link land conservation to preservation of “working farms and ranches” [...] The word “working” must ALWAYS precede farms and ranches.

- DO evoke protecting wildlife, although the phrase “wildlife habitat” speaks more to the base.
- DO NOT say “open space”. “Open space” is NOT one of the better terms to use in the vocabulary of conservation, and “urban open space” is even worse. In the focus groups, voters perceived “open space” as empty land, not near them, ...
- DO say “natural areas” instead
- DO not just say “trails” – say “hiking, biking and walking trails”. “Trails” can’t be assumed as a phrase that envelopes recreation.

(67) Interview with Frank Luntz (see Luntz 2007) on the Daily Show (April 29, 2005):

SAMANTHA BEE (voiceover): From renaming the estate tax the “death tax” to helping label relaxed emissions standards the “clear skies initiative”, Luntz has made a brilliant career spraying perfume on dog turds. [...] Another vital component: language. [...]

BEE (to Luntz): I’m going to read you some words. Help me warm these up a bit.

LUNTZ: Okay.

BEE: Drilling for oil.

LUNTZ: I would say: “Responsible Exploration for Energy”.

BEE: Logging.

LUNTZ: I would say: “Healthy Forests”

BEE: Manipulation.

LUNTZ: “Explanation and education.”

BEE: Orwellian.

LUNTZ: ...

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