

Presuppositions: What went wrong?

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May 11, 2016



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Helsinki 2001

Special Event:
Twenty years of two-level
morphology



Up to early 1980s morphological analysis of natural language was a challenge. Simple cut-and-paste programs were written for particular languages, but there was no language-independent method available.

That changed with the advent of finite-state transducers, a method of analyzing and generating inflected words, applicable to all languages. **Two-level morphology** is the name of the Helsinki brand of that approach.

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— “Are you the SAME Lauri Karttunen who wrote
Presuppositions of Compound Sentences?”

— “Yes, I am”.

— “I DIDN’T KNOW YOU WERE STILL ALIVE!”

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— “Levinson says you have a list of 31 types of presupposition triggers but he only mentions 13 of them. Please send me the full list. I am writing my dissertation on presuppositions.”

— “I don’t know if I still have it.”.

“What sort of range of presuppositional phenomena is there? We may begin by listing some of the constructions that have been isolated by linguistics as sources of presuppositions, i.e. by constructing a list of known **presupposition-triggers**. Karttunen (n.d.) has collected thirty-one kinds of such triggers, and the following list is a **selection** from these...”

Stephen Levinson, *Pragmatics*, 1983, p.181.

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The Levinson List

1. Definite descriptions (Strawson 1950, 1952)
2. Factive verbs (Kiparsky & Kiparsky 1971)
3. Implicative verbs (Karttunen 1971)
4. Change of state verbs (Sellars 1954, Karttunen 1973)
5. Iteratives
6. Verbs of judging (Fillmore 1971)
7. Temporal clauses (Frege, 1892, 1952, Heinämäki 1972)
8. Cleft sentences (Halvorsen 1978, Prince 1978, Atlas & Levinson 1981)
9. Implicit clefts with stressed constituents (Chomsky 1972, Wilson & Sperber)
10. Comparisons and contrasts (Lakoff, 1971)
11. Non-restrictive relative clauses
12. Counterfactual conditionals
13. Questions (Katz 1972, Lyons 1977)

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Prehistory of presupposition

- Eubulides (4th C. BCE)
Have you lost your horns? You had horns.
- Frege (1892)
Kepler died misery. The name ‘Kepler’ has a referent.
- Russell (1905)
The present king of France is bald. FALSE
- Strawson (1950)
NEITHER TRUE NOR FALSE

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Frege's relations (*Der Gedanke* 1918)

- Voraussetzung Presupposition
- Andeutung Conventional implicature
Alfred still has not come.
but vs. and
horse vs. nag, steed
 (suggest: Allusion)
- Nebengedanke Geis & Zwicky's invited inference
Napoleon, who recognized the danger to his right flank, himself led his guards against the enemy position.
All M are N.

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Back to Levinson: Easy Cases

1. Definite descriptions *the dog*
5. Iteratives *again*
7. Temporal clauses *after, when*
8. Cleft sentences *it was John who slept*
9. Implicit clefts with stressed constituents *[JOHN]_F slept*
10. Comparisons and contrasts *as tall as John*
13. Questions *where did John sleep?*

These items seem to pass easily the traditional tests for presupposition:

- | | |
|-------------|------------------------------------|
| Negation | <i>it wasn't John who slept</i> |
| Question | <i>was it John who slept?</i> |
| Conditional | <i>if it was John who slept...</i> |

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Factives

The list of verb and adjective constructions listed as factive in Kiparsky & Kiparsky 1970 is a mixed bag. Need to distinguish at least between

- Certain predicates with that-clause subjects:
that S be odd/tragic (as opposed to *likely*)
that S count/matter/suffice (as opposed to *happen*)
- Certain adjectives with complements:
NP be happy/glad/furious that S (as opposed to *hopeful*)
NP be sad/delighted/disappointed to VP (as opposed to *willing*)
- Certain propositional attitude verbs:
NP know/regret/forget/remember that S (as opposed to *believe*)
- Verbs of discovery:
NP discover/find out/notice/observe (as opposed to *suspect*)
NP be discovered/found out/noticed/observed to VP (as opposed to *suspected*)
- Certain verbs of communication:
NP acknowledge, admit, confess (as opposed to *say*)

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Uncomplicated Factives

The first two groups of factives, *that S be odd*, *that S count*, and *be glad to VP* are unproblematic because there is just one person involved, the speaker. They pass the standard tests for presuppositions with flying colors.

Isn't it odd that desire lasts so much longer than the ability to perform?

Does it count that I celebrated every inch of you?

I wasn't glad to have a handicap so that others could appreciate their relative normality.

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Factive with Multiple Minds

Verbs like *know/regret/forget/remember* involve two minds, two sets of beliefs, those of the author and those of the protagonists.

Even if the two are the same, there could be a difference between the actual world and a 'dream' world:

I dreamt that I was Napoleon and nobody knew it.

False beliefs may give rise to true regrets:

Sally misremembered not leaving a tip and regretted it.

Facts may change over time:

Back then everybody knew that ulcers were caused acid, triggered by stress, but we know now that the real cause is a bacterial infection.

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Verbs of Discovery

The 'coming-to-know' verbs, *discover*, *find out*, *notice*, etc. commit the author to the truth of the complement in affirmative assertions, but it has always been known that these 'semifactives' may fail the negation and if-tests. A negative polarity item in the complement clause indicates that the author is not sure of its truth.

The police did not discover that any cars had been tampered with.

As Beaver has shown, the complicated pragmatic accounts of how a presupposition may get cancelled or goes away in such cases do not cover these sorts of cases. These verbs are in a class by themselves. Negative sentences, questions, and conditionals with these verbs are in principle non-committal, although there are usually clues to indicate whether the author takes the complement as true or as not yet established. What is part of the lexical meaning is that discovering, noticing, etc. lead to facts.

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Verbs of communication

Certain verbs of communication like [acknowledge](#), [admit](#), [confess](#), etc. entail that a protagonist has committed herself to something being a fact. The Spanish inquisition recognized that tortured people may say anything like [I am a witch](#) to make the pain stop. That would be a confession but not a "free confession."

Negative statements, questions, and if-clauses with these verbs are in principle non-committal although the context may provide clues as to the author's stance on the veridicality.

Interviewer: [Was the Iraq war a mistake?](#)

Cheney: [No.](#)

[Cheney did not acknowledge that the Iraq war was a mistake.](#)

As said by a FOX/MSNBC reporter.

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Implicative Verbs

Two-way implicative yield an entailment under both positive and negative polarity. Verbs like [manage](#), [bother](#), [dare](#), [deign](#), [remember \(to\)](#), [happen](#), and [turn out](#) etc. are polarity-preserving; [fail](#), [neglect](#), and [forget \(to\)](#) reverse the polarity.

[Stan failed to propose to Carole again.](#)

fail: -|+

⇒ [John didn't propose to Carole.](#)

[John didn't fail to propose to Carole again.](#)

⇒ [John proposed to Carole.](#)

[John failed to manage to propose to Carole again.](#)

manage: +|-

⇒ [John didn't propose to Carole.](#)

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Presupposition or conventional implicature?

One man's opinion (Kent Bach):

Whatever [manage](#) contributes to the meaning of [Bill manage to finish his homework](#) is not implicated. The content includes both the finishing and the difficulty.

[Did Bill manage to finish his homework?](#)

Another take (Baglioni and Itamar):

A presupposition of a necessary condition + a catalyst to make it sufficient.

[The catalyst, which was necessary but not sufficient for Bill to finish his homework, actually caused John having finished his homework.](#)

My view: Conventional implicature (Frege's *Andeutung*)

Against Bach: [Did Bill manage to finish his homework?](#) does not mean [Did Bill finish his homework with difficulty?](#)

Against Baglioni and Itamar: The causal theory does not seem applicable to verbs like [happen](#) and [turn out](#). [Bill happened to finish his homework.](#)

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One-way implicatives

The four types of one-way implicatives yield an entailment under one polarity and, in many cases, an invited implicature under the other. The entailments of [able](#) and [force](#) are polarity-preserving, [refuse](#) and [hesitate](#) reverse the polarity.

[Sally was not able to speak up.](#) ⇒ [Sally didn't speak up.](#) ○|-

[Sally was forced to speak up.](#) ⇒ [Sally spoke up.](#) +|○

[Sally refused to speak up.](#) ⇒ [Sally didn't speak up.](#) -|○

[Sally didn't hesitate to speak up.](#) ⇒ [Sally spoke up.](#) ○|+

Invited inference:

[Only Sally was able to speak up \(but she didn't\).](#)

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Invited inferences

In a neutral context where it has not been already mentioned or otherwise known what actually happened, all of the one-way implicatives are pushed towards being two-way implicatives unless the author explicitly indicates otherwise.

[Sally was able to speak up.](#) → [Sally spoke up.](#) (+)|-

[Sally was not forced to speak up.](#) → [Sally didn't speak up.](#) +|(-)

[Sally did not refuse to speak up.](#) → [Sally spoke up.](#) -|(+)

[Sally hesitated to speak up.](#) → [Sally didn't speak up.](#) (-)|+

This is a systematic effect although the strength of the invitation varies from one lexical item to another: very strong on [able](#), weak on [hesitate](#).

This is probably related to the fact that the main sentence of a one-way implicative verb and the complement clause are in MacCartney's COVER relation, \hookleftarrow , with negation on one member of the pair.

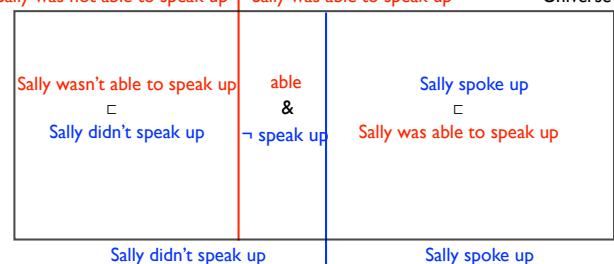
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One way implicatives: ○|-

The join of negation and cover is entailment: $\wedge \bowtie \hookleftarrow = \sqsubset$

[Sally was able to speak up](#) \hookleftarrow [Sally didn't speak up](#)

[Sally was not able to speak up](#) | [Sally was able to speak up](#) Universe



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Aspectual Verbs

The Greeks regarded questions like *Have you stopped beating your father?* as paradoxical because, whichever way the addressee answers it, he ends up acknowledging having beaten his father.

But the paradoxical second person questions are a special case. In third person questions and conditionals the judgements are less clear. As Arbusch and others have shown, the *if*-test does not always lead to the expected result:

If John stops smoking, Mary will buy him a camera.

In a brochure addressed to resident:

If you stopped smoking in 2001, you are eligible for a payment from Tobacco Indemnity Fund.

Arbusch speculates that the difference has to do with how familiar the author is with the protagonist. The tense probably makes a difference as well. In the past tense example *stopped* is understood as shorthand for *were smoking and stopped*.

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If the author explicitly indicates that the question is based on speculation about what might be the case, she escapes any commitment to the proposition that the addressee has ever smoked:

I notice that you keep chewing on your pencil. Have you recently stopped smoking?

As Simons points out, the author may know some special symptom displayed by a person who has stopped smoking that the protagonist does not display:

I have no idea whether Jane ever smoked, but she has not stopped smoking.

What remains is that a command like *Stop smoking!* certainly commits the author to the addressee being a smoker. Otherwise the command could not be followed.

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Verbs of Judging

Fillmore's verbs of judging, *criticize*, *accuse*, *blame*, etc. got on to Levinson's list by mistake. Fillmore distinguishes three roles: AUTHOR, JUDGE, and DEFENDANT.

If I am the author and assume the role of the judge and say to Mary:

It was very bad of you not to answer Harry's letter.

then I have criticized Mary for having done something I consider a bad thing. But if someone else, say John, says that and someone report the event as

John criticized Mary for not answering Harry's letter.

the author is not taking any stand as to whether not answering Harry's letter was or would have been a bad thing or whether Mary is responsible.

In the cases on Levinson's list the author is supposedly committed to what is being presupposed.

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Projection and Attitude Verbs

Beaver & Geurts (SEP 2014):

For nearly four decades the Holy Grail of presupposition research has been to explain the behavior of presuppositional expressions occurring in embedded positions.

There have been many proposals to explain the projection phenomenon. The gamut ranges from forbiddingly complicated formal accounts (Schlenker 2007) to a delightfully simple idea in Simons et al, 2010 that I will comment on later.

But first to the origins of the problem...

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Karttunen 1973 found it difficult to decide whether believe was a 'hole' or a 'plug' in

Bill believes that Fred has stopped beating Zelda.

Final conclusion: *believe* and other non-factive attitude verbs are plugs.

Karttunen 1974 postulated that verbs like *believe* are neither plugs nor holes but belong to a new class of verbs that require that the presuppositions of the complement are 'satisfied' by the beliefs of the protagonist.

Heim 1992 assumed that this new view was basically correct and incorporated it in a more ambitious and comprehensive theory:

The enterprise is carried out in a framework of context change semantics, which incorporates Stalnaker's suggestion that presupposition projection results from the stepwise fashion in which information is updated in response to complex utterances. The empirical focus is on predicates of desire and on the contribution of counterfactual mood.

This approach now seems to me to run against common-sense understanding of how we talk about other people's beliefs and desires.

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Reports on beliefs and desires

Situation:

My friend Laura gets a ride in Kris's new car. She doesn't know much about cars but is very happy with the experience. Laura says to Ken *I want to by a car like Kris's, some kind of electric*, and Ken tells me *I think Laura wants to buy the kind of car Kris has*.

I could report Laura's desire and Ken's belief by saying any one of the following

Laura wants to buy an electric car.

Laura wants to buy a Tesla.

I know that Kris has a Tesla, Ken and Laura don't. I know Teslas are expensive.

This is not the classical *de re/de dicto* distinction:

There is a Tesla such that Laura wants to buy it. (de re)
Laura wants there to be a Tesla that she buys. (de dicto)

Ken thinks that Laura wants to buy an expensive car.

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A claim

It is not necessary or useful to think of the [Tesla](#) examples in terms of presupposition satisfaction.

In describing other people's beliefs and wishes speakers are free (and often required) to bring in additional supplementary information put their own slant on the content.

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An example

Sanders:

[I want to quadruple the tax on billionaires.](#)

WSJ reporter:

[Sanders wants to make radical changes in the US Tax code.](#)

Romney:

[Sanders wants to destroy the US economy.](#)

In Romney's world, it may well be the case that given his model of how the US economy works, plugging in a quadruple tax increase for himself can have catastrophic consequences for the US economy as a whole. For the Romney world this statement may well be a true description of the consequences of what Sanders wants to do. Opinionated and partisan, yes, but you cannot call it FALSE on its own terms.

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Presupposition vs. conventional implicature

Back to Frege's [Voraussetzung](#) and [Andeutung](#). Are they really distinct notions?

Ironically, one of the clearest definitions of conventional implicature comes from the man who believes there aren't any, Bach 1999:

[A proposition is a conventional implicature of an utterance just in case:](#)

- [a. the speaker \(speaking seriously\) is committed to the truth of the proposition,](#)
- [b. which proposition that is depends upon the \(or a\) conventional meaning of some particular linguistic device in the utterance,](#)
- [c. but the falsity of that proposition is compatible with the truth of the utterance.](#)

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Differences - Similarities

Conventional implicatures can be ineffable, non-propositional as the difference between [jerk](#) and [bloke](#). Presuppositions are in most cases propositional, easily articulated.

But in cases where conventional implicatures are propositional, e.g. appositives, they can interact with not-at-issue meaning like presuppositions do.

Assume:

Gonzales has two previous felony convictions. He is on trial for another one. Under California's harsh 'three-strikes-and-out' law, a person with three felony convictions can be locked up for life.

[The jury is very likely to convict Gonzales. In that case, as a third time offender, he will never get out of jail.](#)

The appositive, [a third time offender](#), applies to Gonzales only if he is convicted once more.

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Setting up a bet

You and I think that Bill has a new girl friend named Sally. We both think that he intends to send her a Valentine's card.

You think that Bill often forgets to do things he intends to do. I agree that Bill is forgetful in general but not about his romantic life.

You say

[I bet you \\$10 that Bill will forget to send a Valentine to his girl friend.](#)

I say

[I accept.](#)

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Who won?

Sally, did you get a Valentine's card from Bill?

A1. [No. But Bill sent me a really nice tweet.](#)

A2. [No. Why would Bill send me anything? We are not romantically involved.](#)

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What went wrong?

