

Dissertation Proposal: Levels of Meaning

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Goal of this Thesis

To study the different levels of meaning at which an operator can contribute its different semantic parts.

Outline

Introduction

Adjunct Clauses 1: 'Because'

Adjunct Clauses 2: Relevance Conditionals

Complements of German Attitude Verbs

Expressive Meanings and Presuppositions

Conclusion: Future Work & Timeline

The Big Picture

1. What types of meaning can get lexicalized in human languages?
 - ▶ e.g.: only conservative functions are lexicalized as determiners
2. What levels of meaning can be identified? What semantic tier does each piece of meaning belong to? What consequences follow from that?
 - ▶ semantic tiers: Assertion, Presupposition, Conventional Implicature
3. How do the semantic tiers interact or merge at some points?

This Thesis

The main goal of this dissertation is to shed some light on the three questions introduced above. To that end, I will investigate certain constructions that pose serious challenges for current semantic theory in that they call for a more articulated view of meaning and meaning composition. The constructions at issue are: (i) epistemic and speech-act uses of *because*-clauses, (ii) relevance conditionals, and (iii) German attitude verbs that allow verb-second clausal complements.

Introduction

Adjunct Clauses 1: 'Because'

Data

Semantics of 'denn'

Syntactic Properties of 'denn'

How Does 'denn' License Epistemic and Speech-Act Readings?

Back to the Three Exceptions

Adjunct Clauses 2: Relevance Conditionals

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'Because' in German: 'denn' vs. 'weil'

- (1) a. *Die Straße ist überschwemmt, weil es geregnet hat.*
b. *Die Straße ist überschwemmt, denn es hat geregnet.*
The street is flooded because it rained.

Epistemic Uses of 'denn'

- ▶ However, 'denn' and 'weil' are not synonymous:

- (2) a. * *Es hat geregnet, weil die Straße ganz naß ist.*
b. *Es hat geregnet, denn die Straße ist ganz naß.*

It was raining, because the street is wet.

- ▶ In (2), the 'denn'-clause gives the reason for the conclusion of the speaker that the main clause must be the case:
- ▶ Thus, (2b) means 'It must have rained, because the street is wet.'

Speech-act Uses of 'denn'

- ▶ In addition to the epistemic use, speech-act uses are possible for 'denn', but not 'weil'.

- (3) a. ?? *Ist vom Mittag noch etwas übrig? Weil ich schon wieder Hunger habe.*
b. *Ist vom Mittag noch etwas übrig? Denn ich habe schon wieder Hunger.*

Is there anything left over from lunch? – Because I'm already hungry again.

- (4) *Die Antwort ist auf Seite 42, denn von alleine findest du es wohl nie.*

The answer is on page 42, since you will never find it by yourself.
(after Sweetser 1982)

Superset Relation Between Uses for 'denn' and 'weil'

Superset Relation: “q weil / denn p” expresses

'weil' {
 p CAUSE q
 p CAUSE MUST q
 p CAUSE UTTERANCE OF q
 } 'denn'

Three Exceptions to the Superset Relation

- (i) 'denn'-clauses don't precede the main clause:

- a. *Weil es geregnet hat, ist die Straße naß.*
- b. **Denn es hat geregnet, ist die Straße naß.*

Because it rained, the street is wet.

- (ii) 'denn'-clauses can't answer questions:

Warum ist die Katze gesprungen? —

- a. *Weil sie eine Maus sah.*
- b. **Denn sie sah eine Maus.*

Why did the cat jump? — Because it saw a mouse.

- (iii) 'denn'-clauses can't be backgrounded:

Es hat heute sehr geregnet. —

- a. *Ja, die ganze Straße steht unter Wasser, weil es geregnet hat.*
- b. *# Ja, die ganze Straße steht unter Wasser, denn es hat geregnet.*

It rained a lot today. — Yes, the whole street is submerged under water because of the rain.

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Proposed Semantic Analysis of 'denn'

- (5) In a sentence "A, *denn* B", with $\llbracket A \rrbracket = \phi$ and $\llbracket B \rrbracket = \psi$,
'denn' has the following semantics:

Assertion: ϕ

Conventional Implicature: $\text{CAUSE}(\psi, \phi)$

In other words, 'denn' conventionally implicates that the proposition denoted by one clausal argument is caused by the proposition denoted by the other clausal argument. For 'weil', on the other hand, the causal relationship is part of the assertion.

Conventional Implicatures

- (6) He is an Englishman: He is, **therefore**, brave. (Grice 1975:44)
(7) **Honestly**, he's not a very good cook.

CIs are:

- ▶ conventionally associated with words or phrases
- ▶ commitments made by the speaker of the utterance
- ▶ logically independent of the assertions
- ▶ not embeddable
 - ▶ questions
 - ▶ negation
 - ▶ antecedents of conditionals
 - ▶ ...

(Potts 2005)

'denn' is Not Embeddable in Conditionals

- (8) a. *Wenn Peter zu spät kam, weil er den Bus verpaßt hat, war es seine eigene Schuld und er sollte bestraft werden.*
b. *# Wenn Peter zu spät kam, denn er hat den Bus verpaßt, war es seine eigene Schuld und er sollte bestraft werden.*

'If Peter was late because he missed the bus, it was his own fault and he should be punished.'

- (9) a. *Wenn Peter zu spät kam, weil er den Bus verpaßt hat, hat er den Anfang des Films nicht gesehen.*
b. *Wenn Peter zu spät kam, denn er hat den Bus verpaßt, hat er den Anfang des Films nicht gesehen.*

'If Peter was late — he missed the bus (by the way) — he won't have seen the beginning of the movie.'

Syntax of 'denn'

- ▶ 'denn' is a coordinating conjunction
- ▶ both arguments have to be full CPs:

- (10) * Anna sagt, daß ihre Tochter nicht kann, denn sie krank ist. (VF)
Anna says that her daughter can't (come), because she is sick.
- (11) Du kannst nicht erwarten, daß ich dir so viel Geld leihe, denn bin ich Krösus? (Pasch et al. 2003)
'You can't expect that I'll lend you so much money, because am I Croesus?'

How does 'denn' License Epistemic and Speech-Act Readings?

- (12) *Es hat geregnet, denn die Straße ist ganz naß.*

It was raining, because the street is wet.

- (13) *Die Antwort ist auf Seite 42, denn von alleine findest du es wohl nie.*

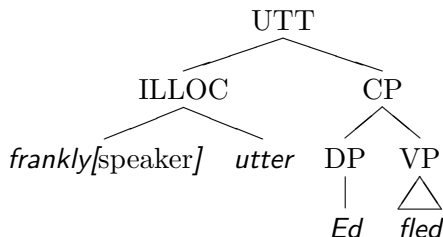
The answer is on page 42, since you will never find it by yourself.

Syntactic Structures for Utterances

- I tentatively adopt Potts' (2005) account for utterance modifying CIs.

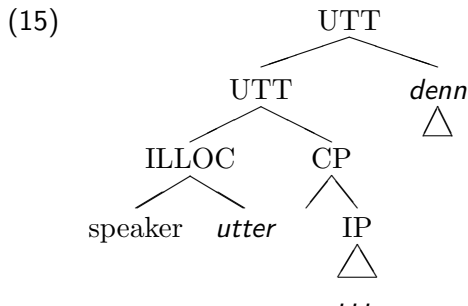
(14) a. Frankly, Ed fled.

b.



'denn': Utterance Modification

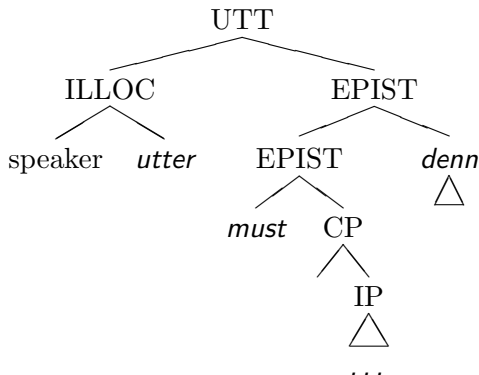
- ▶ 'denn' is not part of the assertion, so it is free to target the utterance.
- ▶ Since this is optional, ordinary causal readings are also possible.



'denn': Epistemic Readings

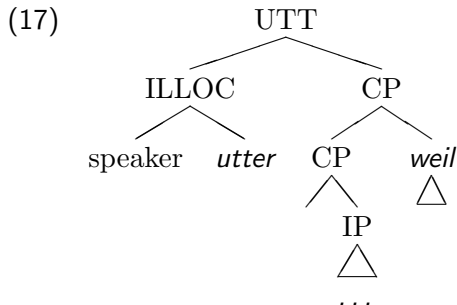
- ▶ Analysis should be parallel to speech-act cases.
- ▶ Assuming Potts' structures as above, we are forced to introduce another intermediate syntactic projection.

- (16) a. (MUST it rained) *denn* (the street is wet)
 b.



'weil': Reference to Utterance out of Assertion is Impossible

- ▶ 'weil' is part of the assertion, so it cannot target anything higher than CP (the assertion level).
- ▶ This rules out speech-act and epistemic readings.



Accomplishments

- ▶ It seems like the uses of 'denn' should be a proper superset of the uses of 'weil'.

$$\left. \begin{array}{l} \text{'weil' } \{ \\ \quad p \text{ CAUSE } q \\ \quad p \text{ CAUSE MUST } q \\ \quad p \text{ CAUSE UTTERANCE OF } q \end{array} \right\} \text{'denn'}$$

- ▶ But what about the three exceptions?

(i) 'denn'-Clauses Don't Precede the Main Clause.

- (11) a. *Weil es geregnet hat, ist die Straße naß.*
b. **Denn es hat geregnet, ist die Straße naß.*
Because it rained, the street is wet.

- All coordinating conjunctions must follow their first argument.

(ii) 'denn'-Clauses Cannot Answer Why-Questions.

- (12) a. *Warum ist die Katze gesprungen?* — Weil sie eine Maus sah.
b. *Warum ist die Katze gesprungen?* — * Denn sie sah eine Maus.

Why did the cat jump? — Because it saw a mouse.

► Cls can never answer questions, they are side comments.

- (18) Who is most unlikely to play the lottery? — # Even Bill plays the lottery.
(19) What does being small contrast with? — # Ants are small but strong.

(iii) 'denn'-Clauses Must be New

- (13) a. *Es hat heute sehr geregnet. — Ja, die ganze Straße steht unter Wasser, weil es geregnet hat.*
 b. *Es hat heute sehr geregnet. — # Ja, die ganze Straße steht unter Wasser, denn es hat geregnet.*

It rained a lot today. — Yes, the whole street is submerged under water because of the rain.

- Antibackgrounding is a central property of CIs (Potts 2005)

- (20) Lance Armstrong survived cancer.
 a. # When reporters interview Lance, a cancer survivor, he often talks about the disease.
 b. And most riders know that Lance Armstrong is a cancer survivor.

'denn' – Summary

- ▶ Causal link is in conventional implicature
- ▶ Coordinating conjunction of CPs
- ▶ I adopt Potts' extended syntactic structures to explain the epistemic and speech-act uses of 'denn', although this is not crucial and I may in fact question this analysis in later work.
- ▶ Seemingly idiosyncratic restrictions on 'denn' follow straightforwardly.

Introduction

Adjunct Clauses 1: 'Because'

Adjunct Clauses 2: Relevance Conditionals

Two Apparent Problems with the Intuitive Approach

The Proposal: Conventional Implicature

Complements of German Attitude Verbs

Expressive Meanings and Presuppositions

Conclusion: Future Work & Timeline

Relevance Conditionals

- ▶ Relevance Conditionals (RCs), Conditional Speech Acts, Biscuit Conditionals, ... (van der Auwera 1986, Sweetser 1990, Iatridou 1991, Siegel 2006)

(21) If you're hungry later, there's pizza in the fridge.
Intuitively: "There's pizza in the fridge. You may be hungry later, (in which case this would be relevant)."

- ▶ This section sketches an analysis of RCs parallel to the 'because'-clauses just discussed.
- ▶ My proposal in a nutshell:
 - ▶ The consequent is asserted (as in Grice 1975, Sweetser 1990, Bach 1999; contra Siegel 2006).
 - ▶ The if-clause contributes epistemic possibility as a CI.

1. Japanese 'yoku' is Unexpectedly Impossible in RCs

- ▶ (Siegel 2006) shows that the Japanese expressive adverbial 'yoku' requires a factive complement.

- (22) a. Kinguzu-wa yoku uruhuzu-ni katta-mono-da.
 the Kings-TOP surprise the Wolves-DAT won-NOMIN-COP
 'The Kings, amazingly to me, defeated the Wolves.'
- b. (Mosi) sensyu-ga kega-kara
 (If) player-NOM injury-from
 kaihuku-sita-mono-na-ra, kinguzu-wa yoku*
 recover-did-NOMIN-COP-COND the Kings-TOP surprise
 uruhuzu-ni katta-mono-da.
 the Wolves-DAT won-NOMIN-COP
 'If their players recovered from their injuries, the Kings,
 [amazingly to me*], defeated the Wolves.'

Japanese 'yoku' is Unexpectedly Impossible in RCs (cont.)

- (23) (Mosi) (kimi-ga) pr yoi sirase-o
(If) you-NOM good news-ACC
kiki-tai-mono-na-ra, kinguzu-wa yoku*
hear-want-COP-NOMIN-COND the Kings-TOP surprise
uruhuzu-ni katta-mono-da-(nee).
the Wolves-DAT won-NOMIN-COP-(PRT)
'If you want to hear some good news, the Kings, [amazingly to me*] defeated the Wolves.'

Japanese 'yoku' is Unexpectedly Impossible in RCs

- ▶ 'yoku' presupposes that its complement is already in the common ground (McCready 2004).

(24) A: Who did Austin marry?

B: *Yoku Dallas to kekkon sita na!

YOKU Dallas with marry did PT

'He did a really good and surprising thing by marrying Dallas!'

Japanese 'yoku' is Unexpectedly Impossible in RCs (cont.)

- ▶ Controlling for backgroundedness, 'yoku' is possible in RCs:

(25) A: Our team defeated the Wolves! What do you say to that?!

B: (Mosi) watasi-no iken-o sir-itai-no-na-ra,
 (If) I-GEN opinion-ACC know-want-to-NM-COP-if,
 kinguzu-wa yoku uruhuzu-ni
 the Kings-TOP surprise the Wolves-DAT
 katta-mono-da-to omou.
 Won-NOMIN-COP-COMP think.

If you want to know my opinion, I'm amazed that the Kings defeated the Wolves.

2. False Consequents in RCs

(26) [In front of the bar:] If they ask you how old you are, you're 21!

- ▶ (Siegel 2006): Consequent of RC is not entailed, so it must not be asserted
- ▶ But the clause just has its normal effect, independent of the RC:

(27) [In front of the bar:] (Remember,) you're 21!

Semantic Analysis of RCs

- ▶ New formalization of the intuitive approach

(28) Meaning of '[If ϕ]_{RC}, ψ ':

Assertion: ψ

Conventional Implicature: $\Diamond\phi$

(29) "[If you're hungry]_{RC}, there's pizza in the fridge."

Assertion: There's pizza in the fridge.

CI: According to Speaker's knowledge, it may be that Addressee is hungry later.

- ▶ Note that CI is $\Diamond\phi$ and not $\phi \Rightarrow \psi$, which in this example would amount to "If you're hungry later, the utterance 'There's pizza in the fridge' exists."
(see Kratzer 1991 on the meaning of 'if')

Summary – Relevance Conditionals

- ▶ CI analysis parallel to speech-act ‘because’-clauses
- ▶ My analysis avoids the problems of previous Assertion Theories.
- ▶ “Relevance” follows from general pragmatic principles.
- ▶ Disintegration of RCs in German follows.
- ▶ What is the ‘if’-counterpart for the epistemic ‘denn’-clauses?

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Adjunct Clauses 2: Relevance Conditionals

Complements of German Attitude Verbs

Verbs of Preference

Questions for Further Research

Expressive Meanings and Presuppositions

Conclusion: Future Work & Timeline

Complements of German Attitude Verbs

- (30) a. *Maria glaubt, dass Peter nach Hause geht.*
 'Maria believes that Peter is going home.'
 b. *Maria möchte, dass Peter nach Hause geht.*
 'Maria wants Peter to go home.'
- (31) a. *Maria glaubt, Peter geht nach Hause.*
 'Maria believes that Peter is going home.'
 b. **Maria möchte, Peter geht nach Hause.*
 'Maria wants Peter to go home.'

- Use syntactic cues as evidence to determine the specific semantic components of attitude verbs, and what tiers they belong to.

Verbs of Preference

- ▶ Variation: 'hoffen' ('hope') and 'es ist besser' ('it is better') allow V2 complements, 'wünschen' ('wish') and 'wollen' ('want') don't.
- ▶ One difference between the groups: 'hope' and 'it's better' cannot be used counterfactually, but 'want' and 'wish' can:

(32) [Scenario: Uwe has to teach two days per week every semester. He is asking his wife for her preferences about when he should teach next semester. She says:]

- a. *Ich will, daß du überhaupt nicht arbeiten mußt.*
- b. *Ich wünsche mir, daß du überhaupt nicht arbeiten mußt.*
- c. *# Ich hoffe, daß du überhaupt nicht arbeiten mußt.*
- d. *# Es ist besser, daß du überhaupt nicht arbeiten mußt.*

I want / wish / * hope / * It is better that you don't have to work at all.

Semantic Properties of Verbs of Preference

- ▶ Contra previous analyses (Truckenbrodt 2006), I argue that the crucial property of verbs that allow V2-complements is ‘* know $\neg p$ ’
- ▶ ‘* know $\neg p$ ’ = incompatibility with counterfactual uses; epistemic possibility

	✓ know p	* know p	
✓ know $\neg p$	want	wish	} * V2-complements
* know $\neg p$	it is better	hope	
			} ✓ V2-complements

Table: Preference predicates and epistemic compatibility.

Open Questions

- ▶ How should the epistemic piece of meaning be formalized?
- ▶ Which semantic tier does it associate with?
- ▶ How can it help license V2 complements?

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Complements of German Attitude Verbs

Expressive Meanings and Presuppositions

Expressive Meanings or Presuppositions

Mixing CIs & Presuppositions

Conclusion: Future Work & Timeline

Distinction of CIs and Presuppositions

- ▶ CIs \neq presuppositions (Potts 2005), CIs:
 - ▶ are independent of the assertion's truth values
 - ▶ cannot be backgrounded
 - ▶ cannot be cancelled by ("metalinguistic") negation
 - ▶ are not plugged by presupposition plugs ('say')
- ▶ It is known how presuppositions behave wrt. the assertion tier (presupposition projection).
- ▶ The question is wide open for the interaction of CIs and presuppositions.

Test the Interactions of CIs and Presuppositions

- ▶ establish the empirical pattern with tests like (33–35)

(33) Mary is going to the cinema, too.

(34) If you're going to the cinema, Mary will go, too.

(35) If you're thinking of going to the cinema, Mary is going, too.

- ▶ run these & other tests with other presupposition triggers
- ▶ make the behavioral pattern follow from the properties of CIs

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Accomplishments

- ▶ The fact that 'denn' contributes a CI predicts the speech-act and epistemic uses of this type of 'because'.
- ▶ I have developed a parallel analysis for relevance conditionals, which have long puzzled semanticists.
- ▶ A crucial semantic difference between German attitude verbs has been identified.
- ▶ I have begun to establish the pattern of interaction between presuppositions and conventional implicatures.

Future Work

- ▶ 'Because' normally triggers a factive presupposition about its complement. Does 'denn' also introduce such a presupposition?
- ▶ Is there a conditional counterpart of epistemic 'denn'-sentences?
- ▶ What is the meaning of 'if'?
- ▶ Are utterance-modifying CIs (RCs, 'frankly') better analysed using an anaphoric approach?
- ▶ What is the correct formalization of the epistemic component of German attitude verbs?
- ▶ Using novel data, how do the semantic tiers, in particular presupposition and conventional implicature, interact?

Timeline

1. relevance conditionals
 2. 'because'-clauses
 3. interaction of expressive meanings & presuppositions
 4. attitude verbs in German
- Projected graduation date: Spring/Summer 2008.

THANK YOU!