Einführung in Pragmatik und Texttheorie

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Lecture 5: Presuppositions (1)

Lecture Plan:

- Introduction
- Historical Overview
  - Frege
  - Russell
  - Strawson
  - Stalnaker

Basic reading:

Levinson 1983, Ch 4;
Davis, Ch ??;

Introduction

"A large class of lexical items and grammatical constructions produce **distinctive patterns of inference**." It is difficult to find any common strand to current analyses of presupposition, save that they all concern (various parts of) this class".

[Beaver 1994]

Introduction

(1) *Der Drache mit den zwei Köpfen* hat *den Prinz* [nicht] angegriffen.

≫ Es gibt einen Drache mit zwei Köpfen

≫ Es gibt einen Prinz

(2) Martha *bedauert* [nicht], Peters Gebräu getrunken zu haben

≫ Martha hat Peters Gebräu getrunken

(3) Peter *schaffte* es [nicht], die Tür zu öffnen

≫ Peter versuchte, die Tür zu öffnen

≫ Es war schwer, die Tür zu öffnen

(4) Peter *hörte* [nicht] *auf*, seine Frau zu schlagen

≫ Peter hatte seine Frau geschlagen

(5) Die fliegende Untertasse blinkte [nicht] *wieder*

≫ Die fliegende Untertasse hatte schon geblinkt

(6) Zuckerstangen gibt es *nicht mehr*

≫ Früher gab es einmal Zuckerstangen

Historical Background

The investigation of presuppositions as a phenomenon originates with debates in philosophy about nature of reference and referring expressions e.g. "John".

The main approaches

- Frege 1892
- Russell 1905
- Strawson 1950
- Stalnaker 1973, 1974

Frege's Theory of Presupposition

(7) *Kepler died in misery*

Kepler starb im Elend.

"Kepler" designates something.

(8) *After the separation of Schleswig-Holstein from Denmark, Prussia and Austria quarreled.*

Nach Losreißung Schleswig-Holsteins von Dänemark entzweiten sich Preußen und Östereich.

There is a past event such that S-H separated from Denmark.

- Referring phrases and temporal clauses carry presuppositions to the effect that they refer.

- Presuppositions are not part of the conventional meaning of a sentence.

- A sentence/assertion has a truth value only if its presuppositions are true (i.e. given logical positivism: the sentence is meaningless)

Referring Phrases (Example 7)

A sentence and its negative counterpart share the same set of presuppositions.

(7) *Kepler died in misery.*
Kepler starb im Elend.

(9) *Kepler did not die in misery.*
Kepler starb nicht im Elend.
The name "Kepler" designates something.

Note: the presupposition is not part of the meaning of the Proper Name (PN). If it were, the meaning of (7) would be:

Kepler died in misery and "Kepler" designates something.

Hence the meaning of (9) would be

Kepler did not die in misery or "Kepler" does not designate anything.

(since $\neg(p \wedge q) \equiv (\neg p \vee \neg q)$),

which is obviously wrong, according to Frege.

Some problems with Frege's theory

Frege's view

- Referring phrases and temporal clauses carry a presupposition to the effect that they refer i.e. there is a uniquely identifiable object (e.g. an entity or an eventuality) which they describe.

- **A sentence/assertion has a truth value only if its presuppositions are true.**

- Hence if a referring phrase fails to refer, its containing sentence fails to have a truth-value.

Some problems with Frege's theory

Problem 1: Presupposition failure need not make a sentence meaningless.

(10) Jan has children and **Jan's children** are tall.
Jan hat Kinder und Jans Kinder sind hoch.

(11) If Jan has children, **Jan's children** are tall.
Wenn Jan Kinder hat, sind Jans Kinder hoch.

(12) Either Jan does not have children, or **Jan's children** are tall.
Entweder hat Jan keine Kinder oder sind Jans Kinder hoch.

"Jan's children" presupposes: "Jan has children"

However even if this presupposition is not verified (i.e. if Jan does not have children), (10-ex:boundpres3) can all have a determinate truth value (i.e. be either false or true).

Further note that in all such cases, the presupposition that Jan has children is NOT inherited by the overall sentence.

Some problems with Frege's theory

Problem 2: Presupposition triggers are not always referring expressions.

(13) a. If a man gets angry, **his child** starts crying.

Wenn ein Man wutig wird, fangt **sein Kind** an zu weinen.

b. Every man kissed **the girl who loved him**.

Jeder Man hat das Mädchen gekusst, die ihm liebte.

The presuppositional expressions **"the girl who loved him"** and **"his child"** are not referring as they contain pronouns that are interpreted as bound variables.

There is no unique object on which the presuppositional expression depends and consequently no way to analyse these NPs as referring expressions.

Russell's Theory of Descriptions

Russell came to quite different conclusions than Frege about the meaning of referring expressions. He held that sentences such as

(14) *The King of France is wise.*
Der König von Frankreich ist weise.

were simply false (hence meaningful) if France has no King at the time of utterance.

He obtains this result by assigning (14) the following semantic representation:

(15) $\exists x(KFx \wedge \neg\exists y((y \neq x) \wedge KFy) \wedge Wx)$
Es gibt eine Entität x, so daß gilt:
a. x hat die Eigenschaft KF
b. es gibt keine andere Entität y, die sich von x unterscheidet und Eigenschaft KF hat.
c. x hat die Eigenschaft W

i.e., there is a King of France who is wise and there's no one else who's King of France.

Russell's Theory of Descriptions

Explicit canceling of presuppositions:

Note that:

(16) *The King of France is not wise.*

Der König von Frankreich ist nicht weise.

$\neg\exists x(KFx \wedge \neg\exists y((y \neq x) \wedge KFy) \wedge Wx)$

is trivially true when France has no (unique) King of France

Therefore, Russell's approach predicts that

(17) *The King of France is not wise because there is no such person*

Der König von Frankreich ist nicht weise, weil es keine solche Person gibt.

can be true.

Whereas in Frege's account this sentence would have no truth-value.

Strawson's Pragmatic Theory

- Introduces a distinction between **sentences** and **use of sentences** i.e. **statements**.

- It is statements, i.e. ⟨ Sentence, Context ⟩ pairs, that are true or false (not sentences).

  (14) *The King of France is not wise.*
  Der König von Frankreich ist nicht weise.
  i. True in 1670.
  ii. False in 1770.
  iii. Neither true nor false in 1970.

- Presuppositions are conventions about **use** of referring expressions: **a statement A presupposes a statement B iff B is a precondition for the truth or falsity of A.**

- Same existential presuppositions as in Frege and hence same problems.

- Rejects Russell's logical form for Definite Descriptions and therefore fails to explain presupposition cancellation.

Stalnaker's Pragmatic Theory

- against encoding generalizations about presupposition projection as lexical rules
- pragmatic theory: speakers employ sentences to change contexts
- presuppositions are never canceled; if they sometimes seem to vanish it is because they may be satisfied by a local context

(18) a. It was Fred who shot the porter, and Barney took care of the manager.

b. If it was Fred who shot the porter, then Barney took care of the manager.

(19) a. Barney took care of the manager and it was Fred who shot the porter.

b. If Barney took care of the manager, then it was Fred who shot the porter.

(20) a. Someone shot the porter and it was Fred who shot the porter.

b. If someone shot the porter, then it was Fred who shot the porter.

A speaker who utters (18) or (19) presupposes *Someone shot the porter*; not so for (20).

Lecture 6: Presuppositions (2)

- Properties of presuppositions
  - Detachability: presupposition triggers
  - Survival/heritability
  - Defeasibility
- Semantic theories of presupposition
- Pragmatic theories of presupposition
  - Static: (Karttunen 1973); (Gazdar 1979)
  - Dynamic: (Heim 1982, 1983); (van der Sandt 1989,1992)
- Conclusions

Basic reading:

Levinson 1983, Ch 4;
Davis, Ch ??;

Defining Properties of Presuppositions

Presuppositions differ from semantic entailments because:

- presuppositions **survive** in contexts (e.g. negation, modals, attitude verbs) where entailments disappear

- presuppositions are **defeasible** e.g. they can disappear in contexts where entailments survive

Defining Properties of Presuppositions

Presuppositions differ from conversational implicatures because they are tied to aspects of **surface structure** (i.e. **detachable**), rather than arising from the cooperative principle. In particular:

- Presuppositions are associated with linguistic items or constructions (**presupposition-triggers**).

- Presuppositions have a complex "inheritance" behavior which is partially sensitive to surface structure, rather than purely to context or world knowledge.

  Presupposition Projection Problem

  What are the presuppositions of (complex) sentences in terms of the presuppositions of their parts, i.e., **compositionality**

Presupposition Triggers

Presupposition are tied to particular words, or aspects of surface structure in general. Karttunen counted 31 kinds of presuppositional triggers,e.g.

- **Definite descriptions**

  (21) *Jon saw* ***the man*** *with two heads*

  Peter sah *den Mann mit den zwei Köpfen* [nicht]

  $\gg$ Es gibt einen Mann mit zwei Köpfen

- **Factive verbs**, e.g. bedauern, wissen, ignorieren, leidtun, dass, stolz darauf sein, dass, froh darüber sein, dass, traurig darüber sein, dass

  (22) *Sue* ***regrets*** *that she drank wine.*

  Martha *bedauert* [nicht], Wein getrunken zu haben.

  $\gg$ Martha hat Wein getrunken

- **Implicative verbs**, e.g. schaffen, vergessen, zufällig tun, vermeiden

  (23) *Maria* ***managed*** *to smile.*

  Maria schaffte es [nicht], zu lachen.

  $\gg$ Maria smiled.

- **Change of state verbs** e.g., aufhören, beginnen, anfangen, innehalten, aufgeben, wegnehmen, verlassen, betreten, kommen, gehen

  (24) *Jon* ***stopped*** *drinking*

  Jon hörte [nicht] auf zu trinken.

  ≫ Jon was drinking

- **Iteratives** e.g., wieder, noch x-mal, wiederkommen, wiederherstellen, zum x-ten Mal

  (25) *Jon kissed Sue again.*

  Jon küsste Sue wieder.

  ≫ Jon kissed Sue before.

- **Judgement verbs** bezichtigen, vorhalten

  (26) Amalie *bezichtigte* Jakob [nicht] eines Plagiats

  ≫ (Amalie denkt,) ein Plagiat ist schlimm

- **Temporal clauses** e.g., *bevor, nachdem, solange, wann immer, als*

  (27) *Bevor* Strawson geboren wurde, hatte die Frege sich [nicht] mit Präsuppositionen beschäftigt.

  ≫ Strawson wurde geboren.

- **Counterfactual conditionals**

(28) *Hätte Hannibal nur zwölf Elefanten mehr gehabt,* würden die romanischen Sprachen heute [nicht] existieren

≫ Hannibal hatte nicht zwölf Elefanten mehr

- **Comparisons and contrasts** e.g., auch, ebenfalls, nur, sogar

(29) *Auch* JAN *küsste Sue.*

JAN *kissed Sue, too.*

≫ Someone else than Jan kissed Sue.

(30) *Jan küsste auch* SUE.

Jon kissed SUE, *too.*

≫ Jon kissed someone else than Sue.

- **Cleft sentences**

(31) Es war [nicht] Hermann, der Rosi küsste.

It was/wasn't Harry who kissed Rosie.

≫ Someone kissed Rosie.

- etc. (cf. Levison, Sec. 4.2)

Presupposition Triggers: More Examples

(cf. Levison, Sec. 4.2,
pp. 197-203 in the German version,
or 181-184 in the English version)

Presupposition Survival

Negation: Presuppositions survive under negation, entailments don't.

(32) Jan schaffte es, rechtzeitig auf zu hören. Jan managed to stop in time.

$\gg$ Jan tried to stop in time.

$\models$ Jon stopped in time.

(33) Jan schaffte es **nicht**, rechtzeitig auf zu hören. Jan did **not** manage to stop in time.

$\gg$ Jon tried to stop in time.

$\not\models$: Jon stopped in time.

Presupposition Survival

Modals: Presuppositions survive under modal operators, entailments don't.

(34) Der Sheriff hat drei Männer arrestiert. The sheriff constable arrested three men.

$\gg$ There is a sheriff.

$\models$ The sheriff arrested two men.

(35) Der Sheriff könnte drei Männer arrestiert haben. The sheriff **could** have arrested three men.

$\gg$ There is a sheriff.

$\not\models$ The sheriff arrested two men.

Presupposition Survival

Conditionals

(36) Die zwei Diebe sind gesternabend wieder gehaftet

The two thieves were caught again last night.

$\gg$ The two thieves were caught before.

$\models$ A thief was caught last night.

(37) Wenn die zwei Diebe gesternabend wieder gehaftet sind, bekommt Jan eine Promotion.

If the two thieves were caught again last night, John will get an honourable mention.

$\gg$ The two thieves were caught before.

$\not\models$ A thief was caught last night.

Disjunctions:

(38) Entweder sind die zwei Diebe gesternabend wieder gehaftet, oder Jan wird sein Job verliern.

Either the two thieves were caught again last night **or** John will lose his job.

$\gg$ The two thieves were caught before

$\not\models$ A thief was caught last night.

Presupposition Defeasibility

Two basic cases:

- Contextual defeasibility: the presupposition is canceled by the linguistic or non-linguistic context.

  1. When sentence context makes presupposition inconsistent.
  2. When is it common knowledge that the presupposition is false
  3. When what is said, taken together with background assumptions
  4. When evidence for truth of presupposition is being weighed and rejected

- Surface-structure defeasibility: the presupposition is canceled by a given surface-structure context (e.g. if-then, or) –**presupposition projection** problem.

Contextual Defeasibility

A presupposition can be canceled under the following type of contexts:

(i) When sentence context makes presupposition inconsistent.

(39) Ich weiß nicht, dass Bill gekommen ist.
I don't know that Bill came.
does not presuppose S knows that Bill came.

although

(40) Jan weißt nicht, dass Bill gekommen ist.
Jon does not know that Bill came.
$\gg$ S knows that Bill came.

Contextual Defeasibility

(ii) When is it common knowledge that the presupposition is false.

(41) A. Peter hat es nicht geschafft, in einen Medizindiplomstudiengang aufgenommen zu werden.

Peter has failed to get into a medicine degree.

B. Zumindest muss Peter jetzt nicht bedauern, ein Medizindiplom gemacht zu haben.

At least Peter won't have to regret that he did medicine.

B's utterance does not presuppose that Peter studied for a degree in medicine.

Contextual Defeasibility

(iii) When what is said, taken together with background assumptions (i.e. relevant WKL), is inconsistent with what is presupposed.

(42) Sarah starb, bevor sie ihre Diplomarbeit beendete.

Sarah died before she finished her thesis.

Does not presuppose Sarah finished her thesis.

although

(43) Sarah machte Urlaub, bevor sie ihre Diplomarbeit beendete.

Sarah cried before she finished her thesis.

$\gg$ Saran finished her thesis.

Contextual Defeasibility

(iv) When evidence for truth of presupposition is being weighed and rejected.

(44) Alexis hat keine Kenntnis davon, dass Sascha vom KGB angeheuert worden ist

≫ Sascha ist vom KGB angeheuert worden

(45) A: Wier müssen herausfinden, ob Sascha ein KGB-Spion ist

B: Wer sollte das wissen?

A: Die einzige Person, die das mit Sicherheit weiß, ist Alexis. Ich habe mit ihm gesprochen, und er hat keine Kenntnis davon, dass Sascha vom KGB angeheuert worden ist. Ich denke also, dass wir Sascha vertrauen können

(46) *We've got to find out if Serge is a KGB infiltrator. Alexis would know. I've talked to him and he is not aware that Serge is on the KGB payroll.*

Does not presuppose Serge is on the KGB payroll

Surface-Structure Defeasibility

In addition to the three cases of **contextual defeasibility** discussed above, there are cases of **intra-sentential cancellation or suspension** of presuppositions.

(47) Peter hat es nicht geschafft, sein Examen zu bestehen

(48) Peter hat versucht, sein Examen zu bestehen

(49) Peter hat es nicht geschafft, sein Examen zu bestehen, ja, er hat es nicht einmal versucht

(50) Peter hat es nicht geschafft, sein Examen zu bestehen, falls er es überhaupt versucht hat

(51) Entweder hat Peter nie versucht, sein Examen zu bestehen, oder er hat es versucht und nie geschafft

(52) Peter hat es nicht *geschafft*, sein Examen zu bestehen - er ist durchgerutscht, ohne es überhaupt versucht zu haben

Semantic Theories of Presuppositions

Strawson's theory of Presupposition gave rise to **semantic theories** of presupposition as follows.

Strawson's definition of presupposition was:

> A statement A presupposes a statement B iff B is a precondition for the truth or falsity of A.

The definition of **semantic presupposition** became:

> A sentence A **semantically presupposes** a sentence B iff:
> (i) A $\models$ B
> (ii) $\neg$ A $\models$ B

Semantic Presupposition

- An important difference between Strawson's view and the semantic view is that the latter takes the presupposition relation to hold between "sentences" whereas Strawson insists it holds between "statements".

- The semantic view tries to bring presuppositions into the realm of logical semantics; Strawson's view is a pragmatic view which makes the role of context central to the analysis of presupposition

- Semantic theories of presuppositions require some fundamental changes in the kind of logic used to model NL semantics; The logic must be multi-valued or allow for truth-value gaps.

Semantic Presupposition

Suppose we use classical logic to define semantic presupposition. Then we can make the following argument:

1. A presupposes B
2. Hence by defn, A $\models$ B and $\neg$ A $\models$ B
3. A is true or A is false (bivalence)
4. A is true or $\neg$ A is true (negation)
5. Hence B (the presupposition) must always be true.

Thus classical logic cannot capture presupposition failure; Nor can it explain why sentences whose presuppositions are not satisfied are odd.

To remedy this, semantic theories of presuppositions are based on multi-valued logics which include true, false and neither-true-nor-false as possible truth-values.

However, many cases of what one would want to call presupposition are not truth-conditional effects, and are also strongly context-dependent. Therefore, the distinction between **semantic** and **pragmatic** presupposition is untenable and has been abandoned.

Some problems with the semantic theories

- A sentence ϕ presupposes a sentence π just in case $\phi \models \pi$ and $\neg\phi \models \pi$.

- The notion of **entailment** adopted is the classical one. Hence it is **monotonic**:

  if $\phi \models \psi$ then no matter how much information γ is added to ϕ, it is necessarily the case that $\phi, \gamma \models \psi$
  (i.e., no matter how much information is added to the discourse, entailments remain true).

  Therefore, this cannot account for the **defeasibility** of presuppositions.

Pragmatic Theories of Presuppositions

Besides the (mostly abandoned) semantic attempts, there are two main types of theories:

- Pragmatic theories based on a static-semantics: Gazdar (1979), Karttunen (1973), Karttunen and Peters (1979)

- Pragmatic theories based on dynamic semantics: Heim (1983), Van der Sandt (1988, 1992), Beaver (1995), Geurts (1997), etc.

Presuppositions are neither viewed as referring expressions nor as semantic entailments. Presuppositions are viewed as context-dependent (i.e. pragmatic) phenomena.

When a presupposition conflicts with previous information, this presupposition does not give rise to inconsistency; it is lifted (i.e. cancelled) or altered (i.e. filtered) to resolve the conflict.

Pragmatic Thepries Based on Static-Semantics

Karttunen (1973) "Filtering"

- first formal definition of presuppositions which concerns the presuppositions of utterances rather than sentences (i.e., pragmatic)

- determines the presuppositions of a complex sentence as a subset of the potential presuppositions of the components

- bottom-up

- progressive adding of propositions also at sub-sentence level

- makes use of: semantic content, presupposition content, heritage expression

Karttunen (1973): "Filtering"

Plugs predicates that block off all the presuppositions of the complement sentence (e.g., *say, mention, ask, tell*)

Holes predicates that let all the presuppositions of the complement sentence become presuppositions of the matrix sentence (e.g., *know, regret, understnd, be possible, perhaps, not*)

Filters predicates that under certain conditions cancel some of the presuppositions of the complement (e.g., *if-then, either-or, and*)

Local Filtering (first version):
Given a function π which maps simple sentences or complex constructions onto sets of potential presuppositions:

1. $P(S) = \pi(S)$ for simple sentences S
2. $P(S') = P(S) \cup \pi(S')$ where S' embeds S by a hole
3. $P(S') = \pi(S')$ where S' embeds S by a plug
4. If S is "If A then B" or "A and B":
   $P(S) = P(A) \cup \langle p \in P(B) | A \not\models p \rangle$
5. If S is "Either A or B":
   $P(S) = P(A) \cup \langle p \in P(B) | \neg A \not\models p \rangle$

Karttunen (1973)

Suppose Fred believes Mormons wear holy underwear and he suspects Geraldine is a Mormon. But, once he catches sight of Geraldine wearing an ordinary bra and panties. He exclaims:

(53) *Either Geraldine is not a Mormon or she has given up wearing holy underwear.*

Entweder ist Geraldine nie Mormonin gewesen, oder sie hat aufgehört, Mormonen-Unterwäsche zu tragen

$\gg$ Geraldine hat aufgehört, Mormonen-Unterwäsche zu tragen

$\gg$ Geraldine pflegte Mormonen-Unterwäsche zu tragen

The presupposition from the second disjunct (i.e., Geraldine used to wear holy underwear) ought to be filtered out, but it is not, because it is not entailed by the negation of the first disjunct, i.e., *Geraldine is not a Mormon*. In order to repair this, Karttunen suggests cancelling of propositions which are entailed by the first disjunct (conjunct, antecedent) together with a set of **assumed facts** F:

Local Filtering (revised version):

3′. If S is "If A then B" or "A and B":
$P(S) = P(A) \cup \langle p \in P(B) | (F \cup \{A\}) \not\models p \rangle$

4′. If S is "Either A or B":
$P(S) = P(A) \cup \langle p \in P(B) | (F \cup \{\neg A\}) \not\models p \rangle$

Gazdar (1979): "Cancellation"

- like Karttunen, proposes a context-sensitive model
- like Karttunen, determines the presuppositions of a complex sentence as a subset of the potential presuppositions of the components
- unlike Karttunen, not bottom-up and not ordered
- unlike Karttunen, progressive adding of propositions only at text level, not below sentence

Global Cancellation:
All potential presuppositions of component sentences of are collected into a set, and then from that set are removed thos which are in conflict with:

1. propositions in the previous context
2. entailments of the utterance
3. the implicatures assiciated with the utterance (see Lecture 3)
4. each other

Satisfiable incrementation of a context set X with a set of propositions Y: the original set plus those propositions in Y which cannot introduce inconsistency.

A problem with both Filtration and Cancellation

Pragmatic information may enter into binding relations with the content expression.

(54) A child likes his cat.

Ein Kind liebt seine Katze

a. $\exists x \exists y(Child(x) \wedge Cat(y) \wedge like(x, y))$ (Content)

b. $\exists x \exists y(Child(x) \wedge Cat(y) \wedge poss(x, y))$ (Presup.)

Predicted Meaning: There is a child who likes his cat and there is a (possibly different) child who has a cat.

Intended Meaning: There is a child who has a cat and who likes it.

Pragmatic Theories Based on Dynamic-Semantics

Dynamic Semantics

- Strawson: meanings of utterances as **context update functions**

- Karttunen (1976): **discourse referents** – discourse context updating amounts to incrementally adding information, i.e., adding new discourse referents and/or adding relations between discourse referents

- Heim (1982, 1983): File Change Semantics. Heim elaborates Karttunen's satisfaction model; further follow up, e.g., Beaver, Krahmer

- Kamp (1981): Discourse Representation theory . Kamp's approach shares basic intuitions with Heim's, and is also tecnically very similar. Nowadays an accepted standard. In DRT, van der Sandt proposes a model of presuppositions as anaphors, nowadays accepted as standard. Further follow up, e.g., Geurts.

- Groenendijk and Stokhof (1991): Update Semantics. Evolved from dynamic predicate logic.

Karttunen (1974)

"Instead of characterizing contexts by compiling the presuppositions of the sentence, we ask what a context would have to be like in order to satisfy those presupositions."

Satisfaction model:
Context X *satisfies-the-presuppositions-of-* S (**admits** S) just is case the presuppositions of each of the constituent sentences in S are satisfied by the corresponding local context.

- removes the need for a projection method which explicitly computes the presuppositions of complexes from their components

- a dynamic notion of context update, also at sub-sentence level

- a precursor to current dynamic theories

Presuppositions as Anaphors (van der Sandt 1989, 1992)

- Presuppositions are special types of anaphors
- Presuppositions differ from anaphors in that
  - They have descriptive content which permits accommodation (i.e. adding an appropriate antecedent to the context if need be)
  - They have internal structure and thus may contain anaphors which may be bound by external quantifiers

Presuppositions as Anaphors

(55) Jo has children and *Jo's children are tall.*

(56) If Jo has children, then *Jo's children are tall.*

(57) Either Jo has no children or *Jo's children are tall.*

None of these sentences presuppose that Jo has children (even though *Jo's children are tall* does).

If we replace the presuppositional trigger *Jo's children* with the pronoun *they*, we get semantically equivalent sentences:

(58) Jo has children and they are tall.

(59) If Jo has children, then they are tall.

(60) Either Jo has no children or they are tall.

So instead of saying that the presupposition is filtered or cancelled or suspended, van der Sandt claims that presuppositions are like anaphors, and like any other kind of anaphors can be **bound** to some previous antecedent (and this explains filtering). When not bound, a presupposition can be **accommodated**.

Presuppositions as Anaphors

The parallelism between presupposition triggers and anaphors extends to other types of presupposition triggers:

VP-anaphora/clefts,presuppositional adverbs

(61) a1. If someone solved the problem, it was Julius who solved the problem.
a2. If someone solved the problem, it was Julius who did.
b1. If Harry stopped smoking, John stopped too.
b2. If Harry stopped smoking, John did too.

Propositional anaphora/factive, temporal clauses

(62) a1. If Jon is ill, Mary regrets that he is ill.
a2. If Jon is ill, Mary regrets it.
b1. If Harry died, he saw his children before he died.
b1. If Harry died, he saw his children before that.

van der Sandt's DRT account

- formulated within Kamp's Discourse Representation Theory (DRT), a theory developed to deal with the interpretation of inter- and intra-sentential anaphora.

- DRT's semantic representation language (i.e. syntax) is the language of DRSs i.e. DR Structures

- The semantics of DRSs is formulated in terms of embeddings in a first-order model.

- There is a direct translation procedure to translate DRSs into first-order formulae

- basic idea: a presupposition introduces an anaphoric DRS which needs to be resolved

(63) *Wendy gave Eliot a peach.*
He thanked her for it.

How are presuppositional anaphors resolved?

To resolve a **presuppositional anaphor**

1. If the p-anaphor can be resolved to some accessible antecedent, the conditions associated with the presuppositional anaphor are transferred to the antecedent site and the anaphoric marker identified with its antecedent marker.

2. Else the p-anaphor is accommodated and the corresponding semantic material (i.e. DM and conditions) deleted from the A-structure and added to the main DRS.

Constraints on anaphora resolution

- If anaphors are embedded within one another the deepest is resolved first, then the next deepest etc.
  Mary did not realise that it was Harry who bought the butcher's goose

- For a p-anaphors, resolution works up the accessibility path and binding to the nearest antecedent is preferred. If the p-anaphor cannot be resolved and thus must be accommodated, accommodation goes down the accessibility path and accommodation to the highest site is preferred.

- The resulting proper DRS must obey some formal (no free variable) and pragmatic constraints (informativity, consistency)

Pragmatic constraints of presupposition resolution

(64) Either the king or the president of France opened the show.

Consistency

Assuming that countries cannot have both a king and a president, accommodation of both a king and a president would violate consistency (the resulting interpretation is inconsistent with WKL).

Local Consistency

Accommodating one of the presupposition would violate local consistency: *France has a unique King and either this King or the unique president of France opened the show*

Local Informativity explains why

(65) If John is married, his wife is happy.

does not have the presupposing reading *John has a wife and if John is married, his wife is happy*: (John has a wife) entails (John is married).

Ambiguous presuppositional expressions

(66) If John has sons, his children are happy.

Allows both binding and accommodation.

Binding: If John has sons, they are happy.

Accommodation: John has children and if John has sons, his children are happy.

(67) If John has grandchildren, his children are happy.

Allows two types of accommodation with one preferred reading (i.e. top level accommodation).

Preferred reading: John has children and if John has grandchildren, his children are happy.

Second possible reading: if John has grandchildren and thus children, his children are happy.

van der Sandt vs Heim

In van der Sandt's account:

- A presupposition survives if it is **not bound;** in this case, it is accommodated i.e. added to the context

- A presupposition does not survive if it is bound

In Heim's account, no contextual update can take place unless the presuppositions of a sentence are **entailed by the context of utterance**; If a presupposition is not entailed by its local context, it is accomodated i.e. added to the context. Hence

- a presupposition survives if it is **not entailed by** the local context of the presupposition trigger (since it is then accommodated i.e. added to the context)

- A presupposition does not survive if it is entailed by its local context

van der Sandt vs Heim

Question: Are the two approaches really different? Or can anaphoric binding be reduced to entailment (since perhaps an anaphor is entailed by its antecedent)?

No. There is an important difference: If the presupposition has several potential antecedents, the entailment view will predict that the presupposition does not survive and yield only one reading. In contrast, the anaphoric view will predict several possible readings. This seems justified by the data.

van der Sandt vs Heim

(68) If John has an oriental girlfriend, his girlfriend won't he happy.

Heim: the presupposition "John has a girlfriend" is trivially satisfied by the antecedent clause "John has an oriental girlfriend". Hence the sentence does NOT presuppose that John has a girlfriend

van der Sandt: The sentence has TWO readings, one which presupposes that John has a girlfriend and one which doesn't.

Presupposing reading (the presupposition/anaphor is not resolved to "an oriental girlfriend"):

John has a girlfriend and if John has an oriental girlfriend, his girlfriend won't he happy.

Non-Presupposing reading (the presupposition/anaphor is resolved to "an oriental girlfriend"):

If John has an oriental girlfriend, she won't he happy.

Summary

What are Presuppositions:

- Frege: special conditions that must be met in order for a linguistic expression to have a denotation.

- Semantic theories: binary relations between sentences, defined either in terms of semantic valuation (i.e., Strawson: ϕ presupposes ψ iff the truth of ψ is a condition for a semantic value of ϕ to be True or False) or in terms of semantic entailment (i.e., ϕ presupposes ψ iff $\phi \models \psi$ and $\neg\phi \models \psi$).

- Pragmatic theories: not just relations between sentences
  - Stalnaker: speaker's presupposition (extreme! not aspect of ling. form)
  - relations between utterances and sentences
  - conditions that a context must obey for an utterance of a sentence to be felicitous

Summary

Problems with Frege's Theory

Problem 1: Presuppositional expressions need not refer.

Example: "Every man kissed the woman who loved him"

v.d. Sandt: Presuppositional expressions are anaphors (and therefore need not refer)

Problem 2: A sentence can have a meaning even if its presupposition is false.

Examples: "Either Jon does not have children or his children are on holiday", "The King of France is not bald because there is no King of France".

v.d. Sandt: Either the presupposition is bound and the sentence meaning independent of the presupposition itself or the presupposition is accommodated and pragmatic constraints constrains accommodation so that the resulting reading makes sense.

Summary

Problems with Semantic Theories

Cannot account for presupposition defeasibility.

v.d. Sandt: Defeasibility is captured through binding or accommodation to a sub-level of the DRS.

Problems with Static Pragmatic Theories

Semantic and presuppositional information are represented separately which yields wrong predictions concerning the communicated meaning.

v.d. Sandt: Semantic and presuppositional information are represented in a uniform way. Problem does not occur.