### Assumptions Hidden in Language (a)

1. Jo’s wife just had a baby.
   - You could argue that (1) carries no meaning at all unless Jo has a wife (to convince yourself of this, negate the sentence and see what happens).
   - So I’m not asserting that Jo has a wife
   - Rather, I’m assuming:
     - she exists,
     - the hearer is happy with this assumption and I’m opening discussion on her having a baby.

### Assumptions Hidden in Language (b)

- Information that’s conveyed this way is called a presupposition.
- The words that trigger them are called presupposition triggers.

### What We’ll Do

- Observe what Presuppositions are.
- Study their effect on communication.
- Examine their similarity to pronouns.
- Examine their differences from pronouns.
- We’ll extend the grammar to deal with them.
- We’ll produce a better account of the
Weird Things Presuppositions
Do (a)
• Presuppositions can project from embeddings.
  – If the trigger is syntactically embedded inside not, it’s possible that, or an if-sentence, it behaves as if it wasn’t embedded at all: The presupposition is still implied by the sentence.
(2) a. The course on pragmatics is really challenging.
     b. The course on pragmatics isn’t really challenging.

Weird Things Presuppositions
Do (b)
• If you don’t like logic, then the course on pragmatics is really challenging.
• It’s possible that the course on pragmatics is really challenging.
• Only (2a) implies something is challenging.
• But all the sentences imply there’s a course on pragmatics.
• Can test if something is a presupposition by adding not to the sentence and seeing if it’s still implied.

Other Presupposition Triggers
• The: The King of France ➔ there is a King of France.
• Proper Names: Jo ➔ there is someone called Jo.
• Possessives: John’s children ➔ John has children ➔ there is someone called John.
• Stop: John stopped smoking ➔ John smoked.
• Realise: John realised X ➔ X.
• Comparatives: Jo is a better linguist than Alex ➔ Alex is a linguist.

More Weird Things
Presuppositions Do
• A presupposition can be cancelled by:
  – overtly denying it:
  (2) e. The King of France didn’t sign the proclamation there is no King of France.
  – the nature of the context:
  (2) f. If Jo has a son, then Jo’s son is bald.
     g. If baldness is hereditary, then Jo’s son is bald. But it’s possible that Jo hasn’t got a son.
The Projection Problem (a)

The Projection Problem:
• Suppose a sentence $S$ contains a presupposition trigger $T$ with corresponding potential presupposition $P$.
• Then how do we compute whether $P$ is presupposed (and hence implied) by $S$?

The Projection Problem (b)

• (2) shows that working this out depends on:
  – Semantic content of the simple sentences that are part of $S$
  – Their relation to each other
  – Their relation to each other’s presuppositions.
• So in our grammar, you have to look at the whole DRS built already to see if $P$ survives as an implication.

Using Presuppositions in Communication

To Tony Blair:
• (3) a. Have you broken your promises to the British People?
• b. When did you realise that the British People would know that you have broken your promises to them?
  – (3a) doesn’t presuppose anything. No is a good answer.
  – (3b) Blair realised that the British People would know... he broke the promises.

Dealing With Presuppositions in the Grammar

So far:
• The: $\text{NP} \quad \text{DET} \quad \text{N}$ becomes $x$
  
  $x$ becomes $\text{name}(x)$
• Reuse a referent if you can. Otherwise, introduce the referent to the top bit of the box.
The Rule in Action

- *the dog* can talk about something old or something new, depending on the context.
- Examples:
  - *The dog* ran.
  - A dog barked. *The dog* ran.

Shortcomings

Rule doesn’t say look for a dog/cat!
- (7) A dog chased a cat. The dog caught the cat.
- One DRS is:
  \[
  \begin{align*}
  &x, y \\
  &\text{dog}(x) \quad \text{cat}(x) \\
  &\text{cat}(y) \quad \text{dog}(y) \\
  &\text{chase}(x, y) \\
  &\text{catch}(y, x)
  \end{align*}
  \]

Shortcomings Continued

- It won’t explain the projection from embeddings:
- (8) If peace is settled, then the King signed the proclamation.

Yet More Shortcomings

- We get scope ambiguity where we don’t want it.
- (9) Every horse jumped the fence.
Presuppositions Behave like Pronouns (a)

(10) a. Jack has children and all of Jack's children/Them are bald.
   b. If Jack has children, then all of Jack's children/Them are bald.
   c. Either Jack has no children or all of Jack's children/Them are bald.
(11) All of Jack's children/?Them are bald.

Presuppositions Behave like Pronouns (b)

• Presuppositions are like pronouns, but with semantic content.
  – You try and bind it to an antecedent.
  – But if you can't bind it, then there's enough semantic content to add it anyway.
• Adding a presupposition to the context is known as ACCOMODATION.
• You're assuming that the presupposition is true, even though you didn't know it before.

Solution to the Projection Problem (a)

1. Replace the presupposition trigger with a suitable pronoun.
2. If the pronoun has a suitable antecedent (i.e., the sentence is acceptable), then the presupposition doesn't survive.
3. If the pronoun doesn't have a suitable antecedent (i.e., sentence sounds odd), the presupposition survives.

Solution to the Projection Problem (b)

This gets things right!
• The presupposition is cancelled in (10) and (2f) because the pronoun is fine.
• The presupposition survives in (11) and (2a,b,c,d) because the pronoun is odd.
Modelling Presuppositions Systematically

- The grammar already has mechanisms for binding pronouns to antecedents.
- So we can use this to handle presuppositions.
- But we must make sure presuppositions bind in the right circumstances.
- And we must add mechanisms for accommodation.
  - If we’re accommodating a presupposition, then
  - What do we add?
  - Where in the DRS do we add it?

Summary (a)

- There are several devices in language that a speaker can use to present information as though the speaker and hearer can both assume it is true.
- Such information is called a presupposition.
- The things that trigger them are called presupposition triggers.
- Presuppositions project from embeddings.

Summary (b)

- Presuppositions can be cancelled by context.
- Presuppositions behave like pronouns with semantic content:
  - You try and bind it to an antecedent;
  - But if you can’t, you accommodate it.
- Viewing presuppositions this way can solve the Projection Problem.

Exercises

- 1. If we couldn’t accommodate presuppositions, then just like (12a), (12b) would be odd, unless there was a preceding discourse context like (12c) that introduces a King of France. (12) a. ?He is bald. b. The King of France is bald. c. There is a King of France. The King of France is bald. Imagine a world where you couldn’t accommodate presuppositions. Then what sentences would you have to precede the following with, in order to make them acceptable: (13) a. John didn’t stop beating his wife. b. John regretted that he didn’t stop beating his wife. c. Alex