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Semantics I Midterm

we have to assume that B is being relevant but what other

1a. B's utterance implicates that B does not have a Siamese. We know this is an implicature because it violates the Gricean maxim of relevance. Based on Grice's cooperative principle, A would assume that B would say something relevant and productive to the conversation. A would then use background knowledge to reason that since Siamese is a type of cat, and B did not choose to respond with the utterance as shown in B', B must not have a Siamese, but instead another type of cat. B might choose to respond with the B utterance rather than the B' utterance based on common sense and past conversational experiences. B might reason that if B simply responded "no", a logical follow-up question for A to ask might be, "do you have a cat at all?" to which B would respond with "yes". It may be that B did this reasoning and saved utterances by using the conversational implicature as shown in B.

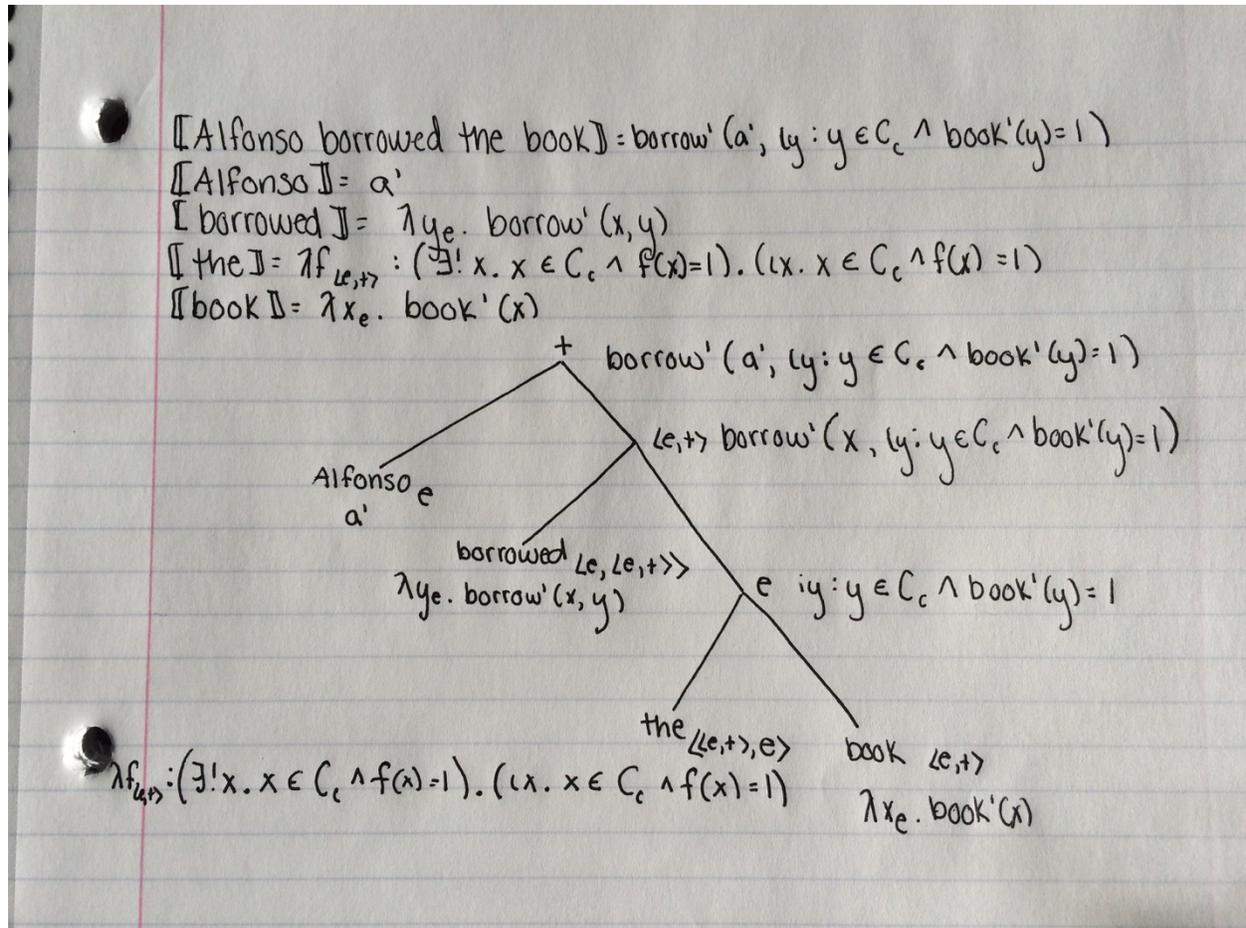
submaxim is being violated or flouted?

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right so B' is actually less informative

11/15

2a.



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your intuitions are close, but this would require a way for us to move from truth-conditions to entities, and our lambda calculus doesn't allow that. We can evaluate whether something is true of an entity but not identify an entity given a particular truth condition. 2b. The type for **[[mother]]** is  $\langle\langle e,t \rangle, e\rangle$  because it takes the function which gives the truth conditions for the property of maternity and returns an entity for which the truth conditions are true. **[[Book]]** is type  $\langle e,t \rangle$  because "bookness" is a quality than an object can have. We have seen this type before with nouns such as "cat". These two types of nouns contribute to a

[mother] should be  $\langle e, \langle e, t \rangle \rangle$  just like transitive verbs

possessive DP because they are the objects which the possessor possesses. One relationship between possessor and possessee that can exist is that an entity can be related to its possessor, or another relationship that can exist is that the possessor can serve to pick out the unique, salient entity that it possesses.

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i get a uniqueness presupposition rather than an existence presupposition from these phrases

2c. The type of the whole DP should be type  $e$ , because it denotes a singular entity. This means that Joanna's mother is a **unique** individual related to her and Joanna's book is a unique salient object that she possesses, both of which are singular entities. The possession of these items by Joanna is part of the context once  $[[\text{Joanna}]]$  is applied to the function. I am proposing an ambiguity that the semantic type of  $[[\text{'s}]]$  changes in order to handle the different types of  $[[\text{mother}]]$  and  $[[\text{book}]]$ . The denotations and types I have come up with for the various constituents of these partial trees are shown below:

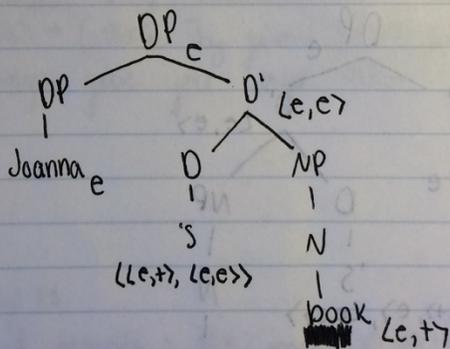
8/9

$N \quad [[\text{mother}]] = \lambda x_e. \text{mother}'(x).x$   
 $D \quad [[\text{'s}]] = \lambda f_{\langle \langle \langle e, t \rangle, t \rangle, e \rangle}. \lambda y_e. (\exists! x. x \in C_e \wedge f(x) = 1)$   
 $DP \quad [[\text{Joanna}]] = j'$   
 $D' \quad [[\text{'s mother}]] = [[\text{'s}]] ([[ \text{mother} ]])$   
 $\quad = (\lambda f_{\langle \langle \langle e, t \rangle, t \rangle, e \rangle}. \lambda y_e. (\exists! x. x \in C_e \wedge f(x) = 1)) (\lambda x_e. \text{mother}'(x).x)$   
 $\quad = \lambda y_e. (\exists! x. x \in C_e \wedge f(x) = 1)$   
 $DP \quad [[\text{Joanna's mother}]] = [[\text{'s mother}]] ([[ \text{Joanna} ]])$   
 $\quad = (\lambda y_e. (\exists! x. x \in C_e \wedge f(x) = 1)) (j')$   
 $\quad = \exists! x. x \in C_e \wedge f(x) = 1$

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graph TD
    DP_e[DP e] --- DP_Joanna[DP e]
    DP_e --- D_prime[D' Lc, e']
    DP_Joanna --- Joanna_e[Joanna e]
    D_prime --- D[D Lc, e']
    D_prime --- NP[NP]
    D --- S["'s Lc, e'"]
    NP --- N[N Lc, e']
    N --- mother["mother Lc, t', e'"]
  
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$$\begin{aligned}
 N \llbracket \text{book} \rrbracket &= \lambda x_e. \text{book}'(x) \\
 D \llbracket \text{'s} \rrbracket &= \lambda f_{\langle e, t \rangle}. \lambda y_e. (\exists! x. x \in C_c \wedge f(x) = 1) \\
 DP \llbracket \text{Joanna} \rrbracket &= j' \\
 D' \llbracket \text{'s book} \rrbracket &= \llbracket \text{'s} \rrbracket (\llbracket \text{book} \rrbracket) \\
 &= (\lambda f_{\langle e, t \rangle}. \lambda y_e. (\exists! x. x \in C_c \wedge f(x) = 1)) (\lambda x_e. \text{book}'(x)) \\
 &= \lambda y_e. (\exists! x. x \in C_c \wedge f(x) = 1) \\
 DP \llbracket \text{Joanna's book} \rrbracket &= \llbracket \text{'s book} \rrbracket (\llbracket \text{Joanna} \rrbracket) \\
 &= (\lambda y_e. (\exists! x. x \in C_c \wedge f(x) = 1)) (j') \\
 &= \exists! x. x \in C_c \wedge f(x) = 1
 \end{aligned}$$



2e.

$$\begin{aligned}
 \llbracket a \rrbracket &= \lambda f_{\langle e, t \rangle}. \lambda g_{\langle e, t \rangle}. \exists x_e. f(x) \wedge g(x) \\
 \llbracket \text{doctor} \rrbracket &= \lambda x_e. \text{doctor}'(x) \\
 \llbracket \text{met} \rrbracket &= \lambda y_e. \lambda x_e. \text{met}'(x, y) \\
 \llbracket \text{Joanna's mother} \rrbracket &= \exists! x. x \in C_c \wedge f(x) = 1 \\
 \llbracket a \text{ doctor} \rrbracket &= \llbracket a \rrbracket (\llbracket \text{doctor} \rrbracket) \\
 &= (\lambda f_{\langle e, t \rangle}. \lambda g_{\langle e, t \rangle}. \exists x_e. f(x) \wedge g(x)) (\lambda x_e. \text{doctor}'(x)) \\
 &= \lambda g_{\langle e, t \rangle}. \exists x_e. (\lambda x_e. \text{doctor}'(x))(x) \wedge g(x) \\
 &= \lambda g_{\langle e, t \rangle}. \exists x_e. \text{doctor}'(x) \wedge g(x) \\
 \llbracket a \text{ doctor met Joanna's mother} \rrbracket &= (\lambda g_{\langle e, t \rangle}. \exists x_e. \text{doctor}'(x) \wedge g(x)) (\lambda x_e. \text{met}'(x, \exists! y. y \in C_c \wedge f(y) = 1)) \\
 &= \exists x_e. \text{doctor}'(x) \wedge (\lambda x_e. \text{met}'(x, \exists! y. y \in C_c \wedge f(y) = 1))(x) \\
 &= \exists x_e. \text{doctor}'(x) \wedge \text{met}'(x, \exists! y. y \in C_c \wedge f(y) = 1)
 \end{aligned}$$

3a. An epithet contributes to the DP/sentence it appears in by adding a negative connotation to the noun it modifies. In determining the contribution of an epithet, context plays a big role.

10/11 Epithets are only uttered in <sup>always?</sup> negative contexts. For example, sentences such as “This damn semester is going so well”, “That damn exam was really easy”, and “My damn dishwasher works great” are infelicitous. In most likely all positive contexts, it would be infelicitous to utter an epithet.

I [fucking] love this [fucking] song. what happens when you move it around in the sentence?

3b. This contribution is a presupposition. We know this because it projects in embedded contexts, such as negation, questions, and imperatives. For example:

- (1) Alfonso broke the damn computer.
- (2) Alfonso didn't break the damn computer, it's just like that.

In both (1) and (2), it is presupposed that the speaker wants to add a negative connotation to the computer.

good, but it is also cancelable suggesting it is an implicature...

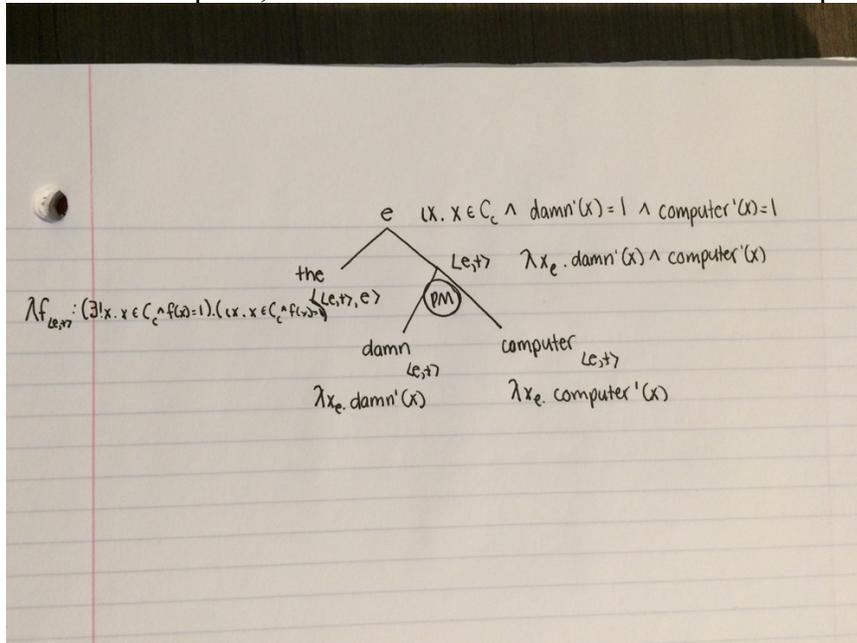
- (3) Alfonso let the damn dog out.
- (4) Who let the damn dog out?

In both (3) and (4), again it is presupposed that the speaker is not happy with the dog.

- (5) Alfonso needs to clean his damn room.
- (6) Alfonso go clean your damn room.

In both (5) and (6), it is presupposed that the speaker is upset about the state of Alfonso's room. Since the contribution the epithet adds to the DP/sentence it appears in projects out of embedded contexts, it has to be a pre-supposition.

3c. The type of adjectival epithets are  $\langle e, t \rangle$  and they combine with other nouns and/or adjectives of type  $\langle e, t \rangle$  via predicate modification. I derived this because I knew that computer would be type  $\langle e, t \rangle$  since it is a property, the would be type  $\langle \langle e, t \rangle, e \rangle$ , and the whole DP would be type  $e$ , since it selects a specific entity. Since the needs to take something of type  $\langle e, t \rangle$ , and computer is type  $\langle e, t \rangle$ , there would be a type mismatch without using predicate modification to combine damn and computer, as shown in the tree and derivations in the picture below.



good first step, but note that this sort of intersective analysis would not fully capture the projection facts noted above. Also, where is the emotional content of these words in the denotation?